RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
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ROSA/UPERC/2025-26/MYT-24-29/004 **08/07/2025**

The Secretary
Uttar Pradesh Electricity Regulatory Commission,
UPSLDC Complex
Vibhuti Khand, Gomti Nagar, Lucknow-226010

Sub:- Petition seeking approval of Multi Year Tariff for the Control Period FY 2024-25 to FY 2028-29

Dear Sir,

Kindly find enclosed herewith the Petition on the subject matter in 06 copies (01 original+05 Photo copies), filed by Petitioner Rosa Power Supply Co Ltd, for kind consideration of Hon'ble Commission.

The Demand Draft no 040623 dated 08.07.2025, drawn on IDBI bank, of requisite fee of Rs 2,50,00000/-(Rupees Two Crore Fifty Lac), is enclosed with the petition.

Thanking you,

Yours faithfully,

For Rosa Power Supply Company Ltd

(Sumeet Notani)
Authorized Signatory

CC: The Chief Engineer (PPA), UPPCL.

Encl: As above.

U.P.E.R.C LUCKNOW
DATE 08/07/25
TIME
RECEIVED

1+5 Copy

09/07/25

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Government of Uttar Pradesh

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Certificate Issued Date	:	07-Jul-2025 12:05 PM
Account Reference	:	NEWIMPACC (SV)/ up14203004/ LUCKNOW SADAR/ UP-LKN
Unique Doc. Reference	:	SUBIN-UPUP14203004477322990485 92X
Purchased by	:	ROSA POWER SUPPLY COMPANY LIMITED
Description of Document	:	Article 4 Affidavit
Property Description	:	Not Applicable
Consideration Price (Rs.)	:	
First Party	:	ROSA POWER SUPPLY COMPANY LIMITED
Second Party	:	UPERC
Stamp Duty Paid By	:	ROSA POWER SUPPLY COMPANY LIMITED
Stamp Duty Amount(Rs.)	:	100 (One Hundred only)

SHCIL ACC CODE UP14203004 L. No. 62 Collectorate, Lucknow

₹100

IN-UP25042840022197X

Please write or type below this line

BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION,

LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2025

IN THE MATTER OF:

Petition under Regulation 14 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of Multi Year Tariff for the Control Period FY 2024-25 to FY 2028-29

AND IN THE MATTER OF:

Rosa Power Supply Company Limited ... Petitioner

Versus

Uttar Pradesh Power Corporation Limited ... Respondent

Sworn and Verified Before me

R. C. VERMA Adv. & Notary Lucknow U.P. India Regd. 31/64/2000

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ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED

I Sumeet Notani, S/o Shri D.P Notani, aged 53 years, Authorised Signatory, Rosa Power Supply Company Limited, having its office at 520- Kasmanda House, 2- Park Road, Hazratganj, Lucknow 226001 do hereby solemnly affirm and state as under.

1. That I am the Authorised Signatory of Rosa Power Supply Company Limited and am aware of the facts and circumstances of the present case and am otherwise authorized to swear and affirm the present Affidavit.

2. That I have gone through the contents thereto and state that same are true to my knowledge based on the records maintained by Rosa Power Supply Company Limited in ordinary course of its business,

3. That the annexure appended hereto are true copies of their respective originals.

Deponent

VERIFICATION

I, the deponent above named do hereby verify that the contents of my above affidavit are true and correct no part of its false and nothing material has been concealed there from.

Verified at Lucknow on this 8th July 2025

Deponent

NOTARY
R. C. VERMA
ADV. & NOTARY
Lucknow U.P. India
Regd. No. 31/64/2000
GOVT. OF UTTAR PRADESH

Sworn and Verified
Before me

8/7/2025

R. C. VERMA
Adv. & Notary
Lucknow U.P. India
Regd 31/64/2000

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आईडीबीआई ओमनीपे/IDBI OMNIPAY

IDBI BANK LTD,12, JAHANGIRABAD PALACE,
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Sr.No.:40623

जारी करने की तारीख से तीन महीने के लिए मान्य
VALID FOR THREE MONTHS FROM THE DATE OF ISSUE

दिनांक DATE 08 07 2025
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ON DEMAND PAY **** SECRETARY, UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION **** को या उनके आदेश पर OR ORDER

रुपये RUPEES Two Crore Fifty Lakh only प्राप्त मूल्य के लिए

अदा करें। ₹ 2,50,00,000.00

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Pur: ROSA POWER SUPPLY COMPANY LTD O & M EXPENSES ACCOUNT

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Authorised Signatory
क्रम सं./Sr. No.

प्राधिकृत हस्ताक्षरकर्ता
Authorised Signatory
क्रम सं./Sr. No.

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U.P.E.R.C LUCKNOW
DATE 08/07/2025
TIME
RECEIVED

BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2025

IN THE MATTER OF:

Petition under Regulation 14 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of Multi Year Tariff for the Control Period FY 2024-25 to FY 2028-29

AND IN THE MATTER OF:

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Versus

Uttar Pradesh Power Corporation Limited ... Respondent

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BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2025

IN THE MATTER OF:

Petition under Regulation 14 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2024 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of Multi Year Tariff for the Control Period FY 2024-25 to FY 2028-29

AND IN THE MATTER OF:

Rosa Power Supply Company Limited ... Petitioner

Versus

Uttar Pradesh Power Corporation Limited ... Respondent

MOST RESPECTFULLY SHOWETH:

I. CONSPECTUS.

1.1. The Petitioner, i.e., Rosa Power Supply Company Limited (**"Petitioner/RPSCL"**) is a Generating Company within the meaning of Section 2 (28) of the Electricity Act, 2003 (**"the Act"**). RPSCL is a wholly owned subsidiary of Reliance Power Ltd., which has set up a 1200 MW coal fired thermal power generation station as an Independent Power Producer (**"IPP"**) at Rosa in District Shahjahanpur (Uttar Pradesh) consisting of four Units with a capacity of 300 MW each in two stages of 600 MW each (**"Rosa TPP"** or **"the Project"**).

1.2. The Hon'ble Commission, in exercise of the powers conferred under Section 61 read with Section 181 of the Act, has notified the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulations, 2024 (**"Tariff Regulations, 2024"**) vide Gazette Notification dated 09.04.2025. These regulations are applicable for

determination of tariff for Generation for the Control Period from 01.04.2024 to 31.03.2029.

1.3. As per Regulation 14 of the Tariff Regulations, 2024, the Generating Company shall submit the application for determination of tariff for the next Control Period within 90 days of the notification of these regulations. Accordingly, the present Petition has been filed for approval of tariff for the Control Period i.e. FY 2024-25 to FY 2028-29.

1.4. Through the instant Petition, RPSCL is seeking determination of tariff for the Control Period FY 2024-25 to FY 2028-29 on account of the following:

a) Estimated Additional Capital Expenditure for bund raising of Ash Dyke Lagoon-2 (2nd Raising) in accordance with the Regulation 21(B)(d) of UPERC Tariff Regulations, 2024; and,

b) Annual Fixed Charges projected for the Control Period FY 2024-25 to FY 2028-29 in accordance with UPERC Tariff Regulations, 2024.

II. BRIEF FACTS

2.1 The Petitioner has entered into a Power Purchase Agreement ('**PPA**') dated 12.11.2006 with Uttar Pradesh Power Corporation Limited ("**UPPCL**"), which was duly approved by this Hon'ble Commission for supplying 600 MW capacity from Stage 1 vide Order dated 02.02.2006, 01.11.2006 and 08.11.2006. A true copy of the PPA dated 12.11.2006 along with the Orders dated 02.02.2006, 01.11.2006 and 08.11.2006 passed by the Hon'ble Commission have been annexed herewith and marked as **ANNEXURE P/1 (Colly).**

2.2 Subsequently, a Supplementary PPA ('**SPPA**') and an Amendment to the SPPA ("**ASPPA**") were signed with UPPCL on 11.09.2009 and 19.11.2011, respectively, for supplying 600 MW from Stage 2 pursuant to the approval by this Hon'ble Commission on 15.06.2009 (for SPPA) and 22.12.2011 (for ASPPA). A true copy of the SPPA & ASPPA dated 11.09.2009 & 19.11.2011 along with the Orders dated 15.06.2009 and 22.12.2011 passed by the

Hon'ble Commission have been annexed herewith and marked as **ANNEXURE P/2 (Colly)**.

2.3 Hon'ble Commission, vide Order dated 17.05.2010 in Petition No. 660/2010, filed by the Petitioner for seeking provisional tariff for Unit 1 of Rosa TPP, had provisionally approved 0.5% additional Return on Equity ("**ROE**") on account of early commissioning of Rosa TPP and further, in Petition No. 706 of 2010, Hon'ble Commission while determining tariff for Phase I has finally approved 0.5% additional ROE on account of early commissioning vide Order dated 28.03.2011.

2.4 Petitions No. 967/2014, 968/2014 and 1016/2015 were filed by the Petitioner for seeking Truing up of Tariff for 600 MW Rosa TPP Stage-I for FY 2009-10 to FY 2013-14, fixation of Tariff for 600 MW Rosa TPP Stage-II for FY 2011-12 to FY 2013-14 and fixation of Tariff for 4 x 300 MW Rosa TPP for Stage I and Stage II for the Control Period FY 2014-15 to FY 2018-19, respectively. This Hon'ble Commission passed an Order dated 22.08.2017 in the aforesaid Petitions approved the truing up of FY 2009-10 to FY 2013-14 and MYT for FY 2014-15 to FY 2018-19 of Rosa TPP. While determining tariff for Stage II from FY 2011-12 to FY 2013-14, Hon'ble Commission had approved additional ROE of 0.5% on account of early commissioning of Stage II and directed the Petitioner to file Petition for truing up of tariff for FY 2014-15 to FY 2018-19 at the end of the Control Period. Accordingly, Petitioner had filed a Truing up Petition for seeking truing up of tariff for FY 2014-15 to FY 2018-19 which has been decided by this Hon'ble Commission vide Order dated 25.02.2022.

2.5 Subsequently, the Petitioner had filed a Petition (Petition No. 1849 of 2022) for review of True-up Order dated 25.02.2022 seeking review of certain aspects like computation of Interest on Working Capital (IoWC), Debt: Equity ratio approved by the Hon'ble Commission. Further, UPPCL also had filed a Petition (Petition No. 1851 of 2022) for review of True-up Order

seeking True-up of O&M expenses for FY 2014-15 to FY 2018-19 and review of carrying cost allowed. The Hon'ble Commission issued the Order in Petition No. 1849 & 1851 of 2022 on 11.01.2023.

2.6 Pending the finalization of UPERC Tariff Regulations, 2019, the Hon'ble Commission issued the Suo-motu Order dated 30.05.2019 extending the applicability of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 (**"UPERC Tariff Regulations, 2014"**) with effect from 01.04.2019 and also directed that tariff during FY 2019-20 shall remain as determined under UPERC Tarif Regulations, 2014 on provisional basis subject to the adjustment with interest. Accordingly, the Petitioner for FY 2019-20 had raised the energy invoices as per the tariff approved for FY 2018-19 in the Tariff Order dated 22.08.2017.

2.7 This Hon'ble Commission issued the Tariff Regulations, 2019 on 11.09.2019 according to which the Petitioner was required to file the Multi Year Tariff Petition (**"MYT Petition"**) for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24. Accordingly, the Petitioner filed a Petition in Petition No. 1578 of 2022 on 04.05.2020 for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24.

2.8 This Hon'ble Commission vide Suo-motu Order dated 11.05.2020 ordered that due to outbreak of Covid-19 and subsequently declaration of country wide lockdown, provisional tariff for next 6 months, i.e., 01.04.2020 to 31.10.2020 shall remain as determined under UPERC Tarif Regulations, 2014. Subsequently, Hon'ble Commission vide Suo-Motu orders dated 11.12.2020, 11.06.2021, and 15.11.2021 extended the applicability of provisional tariff.

2.9 This Hon'ble Commission vide Order dated 02.05.2022 had directed the Petitioner to file the amended MYT Petition for the reasons mentioned therein. Accordingly, the Petitioner had filed a revised Petition on

24.05.2022 for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24.

2.10 Pending issuance of Orders on MYT Petition, Hon'ble Commission issued Suo-Motu Order dated 18.07.2022 and directed that the provisional tariff shall remain as determined under UPERC Regulations, 2014, subject to adjustment with applicable interest, if any, till MYT Petitions for Control Period FY 2019-20 to FY 2023-24 are disposed of.

2.11 This Hon'ble Commission passed an Order dated 16.05.2023 and the Corrigendum Order dated 22.05.2023 in the aforesaid Petition (herein after referred to as "**MYT Order**") and approved MYT Tariff for the Control Period FY 2019-20 to FY 2023-24. Accordingly, the Petitioner had raised the energy invoices as per the tariff approved for FY 2018-19 in the Tariff Order dated 22.08.2017 till the MYT Order is issued. A true copy of the Order dated 16.05.2023 and the Corrigendum Order dated 22.05.2023 passed by the Hon'ble Commission has been annexed herewith and marked as **ANNEXURE P/3.**

2.12 In the aforesaid MYT Petition, the Petitioner had claimed additional capitalization of Rs. 19.49 Crore in FY 2020-21 towards 2nd raising of ash dyke Lagoon-1 and Statutory Auditor's Certificate was provided in support of actual cost incurred. However, the Hon'ble Commission in the MYT Order dated 16.05.2023 held that as per Regulation 17(6) of Tariff Regulations, 2019, any capital expenditure incurred through Related Parties, without prior approval of procurer, shall be excluded from the capital cost and Rs. 16.73 Crore is ought to be disallowed as it was paid to a Related Party of the Petitioner. Therefore, the Hon'ble Commission disallowed entire claim of additional capitalization at the stage of MYT tariff determination and directed the Petitioner to approach the Hon'ble Commission at the true-up stage along with UPPCL's consent and all relevant supporting documents.

2.13 The Petitioner had filed a Petition No. 2019 of 2023 for review of MYT Order to the limited extent that the Petitioner is not required to seek approval from UPPCL for additional capital expenditure incurred for Lagoon 1 (2nd Raising) since the work was not executed through Related Party.

2.14 This Hon'ble Commission dismissed the Review Petition vide Order dated 02.05.2024 by ruling that the ground for review have been already appropriately dealt by the Hon'ble Commission in the MYT Order dated 16.05.2023 and there is no error apparent on face of record.

2.15 As per Regulation 16 of Tariff Regulations, 2019, the Petitioner was required to file a petition for truing up of capital expenditure and tariff for the Control Period FY 2019-20 to FY 2023-24 by 30.11.2024. Accordingly, RPSCL filed a Petition in Petition No. 2143 of 2024 for True up of tariff for Control Period FY 2019-20 to FY 2023-24. The same is pending adjudication of the Hon'ble Commission, for which notice has been issued to UPPCL and the next hearing on the matter is scheduled on 29.07.2025. A true copy of the True up Petition (without Annexures) for Control Period FY 2019-20 to FY 2023-24 has been annexed herewith and marked as **ANNEXURE P/4.**

2.16 As per Regulation 14 of the Tariff Regulations, 2024 notified on 09.04.2025, the Petitioner is required to submit the Petition for determination of tariff for the next Control Period. Accordingly, the present Petition has been filed for approval of tariff for the Control Period FY 2024-25 to FY 2028-29.

2.17 It may be noted that Regulation 14 of the Tariff Regulations, 2024 provides that the application for the next tariff Control Period shall be made by the generating company within 3 months of the notification of these Regulations, based on admitted capital cost as on 31.03.2024 including additional capital expenditure already incurred up to 31.03.2024. However, since the True-up Petition in Petition No. 2143 of 2024 is pending adjudication of the Hon'ble Commission, the Petitioner has considered the closing capital cost, the closing equity and the closing normative debt of FY

2023-24 claimed in the True up Petition as the basis for determination of tariff for the Control Period FY 2024-25 to FY 2028-29 in the present MYT Petition. The Petitioner request the Hon'ble Commission to allow submission of the revised/amended MYT Petition for the Control Period FY 2024-25 to FY 2028-29 once the Order for True-up Petition for the Control Period FY 2019-20 to FY 2023-24 filed in Petition No. 2143 of 2024 is issued by the Hon'ble Commission.

2.18 It is respectfully submitted that the present Petition is being filed without prejudice to the rights of the Petitioner under law.

III. PROJECTED ADDITIONAL CAPITAL EXPENDITURE AND TARIFF FOR THE CONTROL PERIOD FY 2024-25 TO FY 2028-29

A. Additional Capitalization

i) Ash Dyke Bund raising for Lagoon-2 (2nd Raising)

3.1 For the purpose of application for determination of tariff for the Control Period i.e. FY 2024-25 to FY 2028-29, Regulation 14(B)(5) of UPERC Tariff Regulations, 2024 provides for submitting estimated additional capital expenditure for the respective years of the tariff period 2024-29. The relevant para of Regulation is reproduced below:

> **"14. Application for determination of tariff:**
>
> **B. For existing Projects**
>
> *(5) In case of an existing generating station or Unit thereof,* ***the application for the next tariff control period shall be made by the generating company within 3 months of the notification of these Regulations, based on admitted capital cost as on 31.03.2024 including additional capital expenditure already incurred upto 31.03.2024 and estimated additional capital expenditure for the respective years of the tariff period 2024-29.*** *The capital cost admitted as on 31.03.2024 based on the truing up shall form the basis of the opening*

capital cost as on 01.04.2024 for the tariff determination for the period 2024-29."

[Emphasis Supplied]

3.2 In view of the above, the Petitioner has proposed Additional Capital Expenditure for bund raising of Ash Dyke Lagoon-2 (2nd Raising) in the instant Petition which is necessary for the efficient operation of the plant.

3.3 This expenditure is for Ash Pond related work which is of continuous nature during the operational life of the power plant. Ash pond management is dynamic in nature and needs capacity enhancement and strengthening periodically. It is an industry wide practice being followed by the power plants across the world on a periodic basis.

3.4 Raising of Ash Dyke falls within the scope and purview of Regulation 21(B)(d) of UPERC Tariff Regulations, 2024 and the same is reproduced as follows:

"21. <u>Additional capitalization:</u>

B. Additional Capitalisation within the original scope and after the cut-off date

....

(2) The additional capital expenditure actually incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:;

.....

d. Deferred works relating to ash pond or ash handling system or raising of ash dyke as a part of ash disposal system in the original scope of work;

....

"

3.5 Rosa TPP's Ash Dyke has been in operation since year 2010 and in due course of power plant operation, the capacity of Lagoon-1 & Lagoon-2 got exhausted by March 2016. Realizing the additional capacity requirement, the Bund raising work of Lagoon-1 was commenced in FY 2015-16 and completed in March 2016, thus creating an additional capacity of 17 Lakh Cum.

3.6 After the capacity of Lagoon-1 was exhausted, bund raising of Lagoon-2 (1st Raising) and Lagoon-1 (2nd Raising) was undertaken by the Petitioner. The work on Lagoon-2 (1st Raising) was completed in December 2018 with a total expenditure of Rs. 22.50 Crore, thus creating a space of 17.5 Lakh Cum. Further, raising of Lagoon-1 (2nd Raising) was completed in December 2020 with a total expenditure of Rs. 19.49 Crore, thus creating a space of 12.5 Lakh Cum.

3.7 Hon'ble Commission, in its Order dated 06.04.2021 in Petition No. 1390 of 2018, had considered the additional capital expenditure incurred on account of ask dyke bund raising of Lagoon 2 (1st raising). In the referred Order, the Hon'ble Commission has noted that the bund raising of Lagoon-2 (1st raising) and Lagoon-1 (2nd raising) was undertaken and the work of Lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crore. The raising of bund for Lagoon-1 (2nd raising) was underway and was expected to be completed by October 2019 with an estimated cost of Rs. 20 Crore.

3.8 This Hon'ble Commission vide its Order dated 25.02.2022 in Petition No. 1529 of 2019 has approved the additional capital expenditure incurred on account of ask dyke bund raising of Lagoon-2 (1st Raising). The relevant extract of the Order dated 25.02.2022 is reproduced hereunder for ready reference:

> *"3.3.15* ***Based on above, in order to have smooth and continuous handling of ash disposal in the generating station as per Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations 2014, the Commission is inclined to allow the expenditure of Rs. 22.49 Crs of incurred during FY 2018-19 towards 1st raising Lagoon 2 of Ash dyke.*** *Further, on commission query, the Petitioned vide reply dated 27.1.2022, submitted that it has done the expenditure from 100% equity and submitted Auditor certificate dated 22.1.2022 providing that the competed cash-basis expenditure has been done in FY 2018-19. The Petitioner is directed to*

ensure that suitable measures shall be taken to achieve its responsibility of 100% ash utilization."

[Emphasis Supplied]

A copy of the Order dated 25.02.2022 in Petition No. 1529 of 2019 is annexed herewith and marked as **Annexure P/5.**

3.9 It is pertinent to mention that the raising of bund for Lagoon-1 (2nd raising) was completed in FY 2020-21 and the actual expenditure incurred for undertaking the aforementioned works was Rs.19.49 Crore. The Petitioner has filed a Petition in Petition No. 2143 of 2024 for True up of tariff for Control Period FY 2019-20 to FY 2023-24, wherein the said additional capitalization on account of bund raising of 2nd Raising of Lagoon-1 has been claimed. The said Petition is pending before this Hon'ble Commission for adjudication.

3.10 Subsequently, the space created for Lagoon-2 through Bund raising almost exhausted whereas only some capacity was left in Lagoon-1. Therefore, 2nd Bund raising of Lagoon-2 was taken up in FY 2023-24 for uninterrupted plant operations. For 2nd Bund raising of Lagoon-2, downstream raising method is considered due to various advantages it offers in comparison to upstream raising, as stated below:

a) With Down-stream method, more storage space is created due to divergence from existing Dyke top and more ash utilization is achieved for Dyke construction in comparison to Up-stream method in which the dyke raising will be converging making the storage area much less. With this, the cost of Dyke construction per tonne of ash storage creation will be lesser than that in Up-stream method.

b) Down-stream method is also environmental friendly and is the safest method of Dyke raising as the base width will be much higher than that in normal Up-stream method and most of the Dyke section is found on natural earth or compacted existing Dyke surface with only minimum

area founded on loose ash deposits. This will make the raised Dyke safer as compared to Up-stream method which is totally founded on relatively weak hydraulically deposited ash surface. This will also minimize the danger to surrounding villages and environment.

3.11 It may be noted that the bund raising involves elevating the bund wall by height of 5.5 meter to attain a volume of around 33 Lakh Cum and the same in expected to be completed towards the end of FY 2025-26 with an estimated cost of around Rs. 34 Crore. The estimated cost for bund raising is higher than the cost incurred in previous bund raisings due to adoption of downstream raising method to create higher space compared to space created in previous bund raisings.

3.12 It is most respectfully submitted that in the Design Basis Report of Ash Handling System for RPSCL, the specifications capture the design basis for various components of the ash handling system which considers the height of ash dyke to be raised gradually up to 30 M during the operational phase of the project. Relevant extracts are reproduced as follows:

"4.03.00

(e) There shall be, for two (2) units, three (3) slurry pipes running cross country from combined slurry sump to ash dump area. Normally, two (2) pipes shall be working while one (1) pipe shall remain as standby. All the joints in the straight disposal pipeline will be of sleeve coupling of 50 M interval. The slurry pipe route length shall be as per calculated length during detail engineering for pipes from plant to dyke including garlanding over ***dyke the height of which shall be considered to rise up to 30 M****.....*

g) At the Ash Dump Area, the Ash Slurry shall be discharged at strategic locations and shall be shifted from time to time depending on the degree of filling. From a suitable outlet point, the settled water shall be decanted out of the pond and shall be pumped back to the plant for reuse and water economy. ***To augment the capacity of the Ash Pond, as time goes on, the bund height of the Ash Pond shall be gradually increased."***

[Emphasis Supplied]

3.13 Therefore, Ash dyke bund raising works are additional works which are necessary during the operational life of the power station and were considered in the original design of ash handling system. As mentioned earlier, raising of Ash Dyke falls within the scope and purview of Regulation 21(B)(d) of UPERC Tariff Regulations, 2024 and therefore, has been included in the present Petition for consideration of this Hon'ble Commission.

3.14 It may be noted that Central Electricity Authority ("**CEA**") and Central Pollution Control Board ("**CPCB**") have issued a report on 'Guidelines on Design, Construction, O&M And Annual Certification of Coal Ash Ponds' in June 2023 to help in better ash management, design, construction as well as operation and maintenance of the ash pond. This report also highlights the need for ash dyke bund raising during the operational life of the power plant. The relevant paras of the report are reproduced below for reference:

> ***"1.2 Ash Pond/ Dykes***
>
> ***The dyke around the ash disposal area is constructed in multi-stage.*** *Initially a starter dyke is constructed utilizing earth excavated from the ash disposal area itself and* ***when it is filled with discharged ash the height of ash dyke embankment is raised.***
>
> ....
>
> ***4. General***
>
> ***In general, for Ash disposal, Starter Dyke of height 10-15m height and subsequent raisings of 3-5m height each (effective height) for future storage are considered.*** *The stability analysis is to be performed for starter ash dyke without raising and with each subsequent raising separately for static and seismic cases as per IS 7894.* ***The starter dyke to be constructed first and subsequent raisings to be constructed in stages after the starter dyke is filled with ash to its capacity."***
>
> ***[Emphasis Supplied]***

3.15 It is also relevant to state that the Hon'ble Central Electricity Regulatory Commission ("**CERC**") through its various Orders has permitted Additional Capitalization of Ash Bund raising for the projects approved under Section

62 of the Act and some of the Orders issued by Hon'ble CERC are placed below for reference:

(a) **NTPC Ltd. vs. Andhra Pradesh Eastern Power Distribution Company Ltd [Petition No. 270/GT/2014]:**

> *"14 The petitioner has claimed Rs. 383.00 lakh in 2014-15, Rs. 2300.00 lakhs in 2015-16, Rs. 1406.00 lakhs in 2016-17, Rs. 1124.00 lakh in 2017-18 and Rs. 2783.00 lakh in 2018-19 towards works of ash dyke raising consisting of two Lagoons i.e. lagoon-1and lagoon-2. We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the approved scheme under original scope of work.* ***As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19. However, the petitioner is directed to submit at the time of truing up of tariff, the detail break-up of the activities along with the cost incurred for each work under the Raising of Ash Dyke works, the estimated expenditure envisaged for Ash Handling system/ Ash Dyke Raising in the original scope of work, the actual expenditure incurred as on COD of the generating station and from COD to 2018-19."***

(b) **NTPC Ltd. vs. West Bengal State Electricity Distribution Company Limited & Ors. [Petition No. 281/GT/2014]:**

> *"14. We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected towards ash dyke raising is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the approved scheme under original scope of work. The petitioner has submitted newspapers extracts from 2011 depicting the coverage of the issues pertaining to ash disposal.* ***As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19."***

[Emphasis Supplied]

3.16 In view of above, estimated additional capitalization projected for determination of Tariff for the Control Period from FY 2024-25 to FY 2028-29 has been given in the table below:

Table 1: Additional Capitalization projected for the Control Period (Rs. Crore)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
Additional Capitalization for raising of bund for Lagoon-2 (2nd raising)	-	34.00	-	-	-

ii) Means of Finance for Additional Capitalization

3.17 The Petitioner is executing the estimated additional capitalization of Rs. 34 Crore from the internal accruals and reserves & surplus. UPERC Tariff Regulations, 2024 has limited the equity investment up to 30%. Equity more than 30% has to be considered as normative debt. Therefore, for undertaking additional capitalization normative, i.e., 70:30, Debt: Equity ratio has been considered.

3.18 The Petitioner will submit its Board Resolution as specified in Regulation 23(a) of the Tariff Regulations, 2024 regarding infusion of fund for additional capitalization towards bund raising from internal resources at the later stage.

A. Capital Cost for the Control Period FY 2024-25 to FY 2028-29

3.19 Hon'ble Commission, vide MYT Order dated 16.05.2023, has approved the capital cost of project as Rs.6519.73 Crore for Control Period FY 2019-20 to FY 2023-24. However, during this MYT period, an additional expenditure of Rs. 30.57 Crore has been incurred on account of Ash Dyke Bund raising for second raising of lagoon-1 and side stream filtration system. This expenditure has been capitalized and claimed in the True-up Petition in Petition No. 2143 of 2024 for Control Period FY 2019-20 to FY 2023-24 which is pending before this Hon'ble Commission for approval.

3.20 The Petitioner has considered the closing capital cost of Rs. 6550.30 Crore claimed in the True-up Petition for Control Period FY 2019-20 to FY 2023-24 as the opening capital cost for FY 2024-25. Thus, opening capital cost for

FY 2024-25 is subject to revision based on final approval of True-up for the Control Period FY 2019-20 to FY 2023-24. Further, estimated additional capitalization for Ash Dyke Bund 2nd raising of lagoon-2 as mentioned hereinabove has been added in FY 2025-26.

3.21 Accordingly, the capital cost considered for the purpose of determination of tariff for FY 2024-25 to FY 2028-29 is presented below:

Table 2: Capital Cost projected for the Control Period (Rs. Crore)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
Opening Capital Cost	6,550.30*	6,550.30	6,584.30	6,584.30	6,584.30
Add-cap during the year	-	34.00	-	-	-
Discharge of undischarged liability	-	-	-	-	-
Net addition	-	34.00	-	-	-
Closing Capital Cost	6,550.30	6,567.30	6,584.30	6,584.30	6,584.30

**Closing Capital Cost for FY 2023-24 as claimed in 2019-24 True up Petition No.2143 of 2024 pending adjudication*

B. Fixed Charges for the Control Period FY 2024-25 to FY 2028-29

3.22 Fixed Charges have been calculated in accordance with the Regulation 24 of Tariff Regulations, 2024 which consist the following components:

a. Return on Equity
b. Interest on Loan Capital
c. Depreciation
d. Operation and maintenance expenses
e. Interest on Working Capital

3.23 For the purpose of determination of tariff, the Petitioner has projected GFA for the Control Period FY 2024-25 to FY 2028-29 as shown below:

Table 3: GFA projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Opening GFA	6,550.30	6,550.30	6,584.30	6,584.30	6,584.30
Add-cap during the year	-	34.00	-	-	-
Closing GFA	6,550.30	6,567.30	6,584.30	6,584.30	6,584.30

3.24 The Petitioner has calculated Fixed Charges for the Control Period FY 2024-25 to FY 2028-29 in accordance with the Regulation 25 of Tariff Regulations, 2024 as elaborated below:

a. Return on Equity

3.25 To arrive at the opening equity as on 01.04.2024, the closing equity of FY 2023-24 as submitted in the True-up Petition in Petition No. 2143 of 2024 for Control Period FY 2019-20 to FY 2023-24 has been considered. Thus, opening equity for FY 2024-25 is subject to revision based on Order for True-up of Control Period Control Period FY 2019-20 to FY 2023-24. Subsequent equity addition as 30% of the addition of capital cost in FY 2025-26 has been considered.

3.26 Return on Equity has been computed in accordance with the Regulation 25(3)(a) of Tariff Regulations, 2024 on the equity component of the capitalized cost on the normative debt: equity ratio of 70:30. Further, return on equity has been computed at 15% as provided under Tariff Regulations 2024.

3.27 Return on Equity projected for the Control Period is as under:

Table 4: Return on Equity projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Opening Equity	1,678.33*	1,678.33	1,688.53	1,688.53	1,688.53
Add: Increase due to addition during the year	-	10.20	-	-	-
Closing Equity	1,678.33	1,688.53	1,688.53	1,688.53	1,688.53
Average Equity	1,678.33	1,683.43	1,688.53	1,688.53	1,688.53
Rate of ROE	15.0%	15.0%	15.0%	15.0%	15.0%
Return on Equity	**251.75**	**252.51**	**253.28**	**253.28**	**253.28**

**Closing Equity for FY 2023-24 as claimed in 2019-24 True up Petition No. 2143 of 2024 pending adjudication.*

b. Interest on Loan Capital

3.28 To arrive at the opening normative debt as on 01.04.2024, the closing normative debt of FY 2023-24 as submitted in the True-up Petition in

Petition No. 2143 of 2024 for Control Period FY 2019-20 to FY 2023-24 has been considered. Thus, opening debt for FY 2024-25 is subject to revision based on Order for True-up of Control Period Control Period FY 2019-20 to FY 2023-24. Subsequent debt addition as 70% of the addition of capital cost in FY 2025-26 has been considered. Further, repayment for the Control Period has been considered same as depreciation calculated for the respective year.

3.29 Interest on loan capital has been computed in accordance with the approach mentioned in Regulation 25(3)(b) of Tariff Regulations 2024. It may be noted that entire loan is repaid in FY 2022-23 and there is no actual loan outstanding for FY 2023-24 onwards; however, normative loan is still outstanding. Therefore, as per provision of Regulation 25(3)(b)(iv), the last available weighted average interest rate of 12.07% (i.e., weighted average interest rate of FY 2022-23 as submitted in True-up Petition) has been considered for calculation of interest on loan capital for FY 2024-25 to FY 2028-29. Since normative loan is also getting repaid in FY 2027-28, the projected interest on loan capital for FY 2028-29 is nil.

3.30 Interest on loan capital projected for the Control Period is as under:

Table 5: Interest on Loan Capital projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Gross Normative loan – Opening	4,871.96	4,871.96	4,895.76	4,895.76	4,895.76
Cumulative repayment of Normative loan upto previous year	4,585.21	4,685.99	4,789.31	4,892.63	4,895.76
Net Normative loan – Opening	286.75*	185.97	106.45	3.13	-
Add: Increase due to addition during the year / period	-	23.80	-	-	-
Less: Normative repayment	100.77	103.32	103.32	3.13	-
Net Normative loan – Closing	185.97	106.45	3.13	-	-
Average Normative loan	236.36	146.21	54.79	1.56	-
Weighted average rate	12.07%	12.07%	12.07%	12.07%	12.07%

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
of interest					
Interest on Loan	**28.52**	**17.64**	**6.61**	**0.19**	**-**

**Closing Net Normative loan for FY 2023-24 as claimed in 2019-24 True up Petition No.2143 of 2024 pending adjudication.*

c. Depreciation

3.31 It is submitted that depreciation has been worked out in accordance with the Regulation 25(3)(c) of Tariff Regulations, 2024. As per the Regulations, the rate of depreciation shall be continued to be charged at rates specified in Appendix III of Regulations till cumulative depreciation reaches 70% and thereafter, remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

3.32 As submitted in the True-up Petition in Petition No. 2143 of 2024 for Control Period FY 2019-20 to FY 2023-24, 70% depreciation is recovered in FY 2023-24. Therefore, the balance depreciable value has to be spread over the remaining life of the asset.

3.33 It may be noted that the maximum depreciation is limited to 90% of GFA. Considering the GFA of Rs. 6550.30 Crore for FY 2024-25, the maximum depreciation of 90% works out to be Rs. 5895.27 Crore. Further, 70% of depreciation received till FY 2023-24 is Rs. 4585.21 Crore and thus, the balance depreciation is Rs. 1310.06 Crore. This balance depreciation has been spread over the 13 years of remaining life of the asset in equal amount, i.e. Rs. 100.77 Crore as per provisions of Tariff Regulations, 2024.

3.34 Therefore, depreciation of Rs. 100.77 Crore has been considered for FY 2024-25. However, since there is additional capitalization proposed in FY 2025-26, GFA for FY 2025-26 will increase to Rs. 6584.30 Crore and therefore, the balance depreciation to be recovered in remaining 12 years works out to be Rs. 103.32 Crore. Accordingly, the Petitioner has considered depreciation of Rs. 103.32 Crore for FY 2025-26 to FY 2028-29. The

resultant depreciation rate works out to be 1.54% for FY 2024-25 and 1.57% for FY 2025-26 to FY 2028-29 due to addition of GFA in FY 2025-26.

3.35 Depreciation projected for the Control Period is as under:

Table 6: Depreciation projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Opening GFA	6,550.30	6,550.30	6,584.30	6,584.30	6,584.30
GFA addition	-	34.00	-	-	-
Closing GFA	6,550.30	6,584.30	6,584.30	6,584.30	6,584.30
Average GFA	6,550.30	6,567.30	6,584.30	6,584.30	6,584.30
Rate of Depreciation	1.54%	1.57%	1.57%	1.57%	1.57%
Depreciation	**100.77**	**103.32**	**103.32**	**103.32**	**103.32**

d. O&M Expenses

3.36 O&M expenses for the Control Period have been considered as per the O&M norms applicable for 300 MW Unit as per Regulation 25(3)(d) of the Tariff Regulations, 2024.

3.37 In addition to above, Regulation 25(3)(d)(iv) of the Tariff Regulations, 2024 allows water charges, security expenses, ash transportation expenses and capital spares for thermal generating stations separately. Therefore, actual water charges have also been considered for FY 2024-25. Water Use Agreement of the Petitioner provides for 4% escalation per annum in water charges. Thus, for projecting water charges for FY 2025-26 to FY 2028-29, 4% escalation per annum has been considered year on year on the actual water charges of FY 2024-25. The Petitioner has also considered actual security expenses for FY 2024-25 and the same is considered for projecting security expenses for FY 2025-26 to FY 2028-29 with estimated 5% escalation per annum. Further, the Petitioner has not incurred any ash transportation expenses in FY 2024-25; however, the Petitioner may require to incur ash transportation expenses in future to meet 100% ash utilization target as per the notifications of the Ministry of Environment and Forest, Climate Change ("**MoEF&CC**") issued from time to time. Therefore, ash

transportation expenses of Rs. 10 Crore has been projected for each year from FY 2025-26 to FY 2028-29 considering the present level of annual ash generation and estimated rate of Rs. 50 per Ton for ash transportation expenses.

3.38 Accordingly, the O&M expenses projected for the Control Period are given in the table below:

Table 7: O&M Expenses projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
O&M Cost in (Rs. Lakh/MW)	34.04	35.83	37.71	39.69	41.78
O&M Expenses	408.48	429.96	452.52	476.28	501.36
Water Charges	2.41	2.51	2.61	2.71	2.82
Security Expenses	5.57	5.85	6.14	6.45	6.77
Ash Transportation Expenses	0.00	10.00	10.00	10.00	10.00
Total O&M Expenses incl. Water Charges, Security Expenses and Ash Transportation Expenses	**416.46**	**448.31**	**471.27**	**495.44**	**520.95**

e. Interest on Working Capital

3.39 Interest on Working Capital (IoWC) has been computed in line with Regulation 25(3)(e) of Tariff Regulations, 2024 which provides detailed constituents comprising the Working Capital and interest thereof. Regarding interest rate for FY 2024-25 and FY 2025-26, interest rate considered is at bank rate (1 year SBI MCLR+ 350 basis points) as on 1st April of the respective financial year as provided under Tariff Regulations, 2024 and for subsequent years, interest rate of FY 2025-26 has been considered. Documentary evidence for 1 year SBI MCLR for FY 2024-25 and FY 2025-26 has been annexed herewith and marked as **ANNEXURE P/6.**

3.40 For computing cost of coal and secondary fuel oil, the landed cost incurred (taking into account normative transit and handling losses) by the Petitioner and gross calorific value of the fuel on 'as received basis', for the three

months preceding the first month of the period for which tariff is to be determined, i.e., for the months January 2024, February 2024 and March 2024 have been considered. Copy of the monthly energy invoices for the January to March 2024 have been annexed herewith and marked as **ANNEXURE P/7(Colly).**

3.41 Accordingly, IoWC for the Control Period is projected in the table below.

Table 8: Interest on Working Capital projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Cost of Coal for 50 days	362.5	362.5	362.5	362.5	362.5
Cost of Secondary Fuel for 2 months	6.00	6.00	6.00	6.02	6.00
O&M Expenses for 1 month	34.70	37.36	39.27	41.29	43.41
Maintenance Spares @20% of O&M Expenses	83.29	89.66	94.25	99.09	104.19
Receivable for 45 days	474.14	478.06	479.44	481.43	485.05
Total Working Capital	**960.60**	**973.55**	**981.43**	**990.29**	**1,001.12**
Rate of Interest	12.15%	12.50%	12.50%	12.50%	12.50%
Interest on Working Capital	**116.71**	**121.69**	**122.68**	**123.79**	**125.14**

f. Application Fee & Statutory Charges

3.42 Regulation 36 of the Tariff Regulations, 2024 allows Petitioner to claim Application fee and Statutory charges separately. Therefore, these expenses have also been projected for the Control Period based on the actual cost incurred for FY 2024-25. Further, the Petitioner has paid the Application fees of Rs. 2.5 Crore for the instant Petition which has been considered in FY 2025-26. Accordingly, projected Application fee and Statutory charges for FY 2024-25 to FY 2028-29 are as shown below:

Table 9: Application Fee and Statutory Charges projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Application Fee and Statutory Charges	0.46	2.96	0.46	0.46	0.46

g. Summary of Annual Fixed Charges for the Control Period FY 2024-25 to FY 2028-29

3.43 Based on the cost components mentioned in previous paras, Petitioner submits the summary of Annual Fixed Charges projected for the current Control Period in the following table and requests the Hon'ble Commission to approve the same.

Table 10: Annual Fixed Charges projected for the Control Period (Rs. Crore)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Depreciation	100.77	103.32	103.32	103.32	103.32
Interest on Loan	28.52	17.64	6.61	0.19	-
Return on Equity	251.75	252.51	253.28	253.28	253.28
Interest on Working Capital	116.71	121.69	122.68	123.79	125.14
O&M Expenses incl. Water Charges, Security Expenses and Ash Transportation Expenses	416.46	448.31	471.27	495.44	520.95
Application Fee and Statutory Charges	0.46	2.96	0.46	0.46	0.46
Total Annual Fixed Charges	**914.68**	**946.45**	**957.62**	**976.48**	**1,003.15**

h. Variable Charges

3.44 The Petitioner respectfully submits that the Operating norms i.e. Station Heat Rate, Auxiliary Power Consumption and Secondary Fuel Oil Consumption have been considered for projecting the tariff for the Control Period FY 2024-25 to FY 2028-29 as per Regulation 28 of Tariff Regulations 2024. However, the coal cost at actuals (as received basis) is payable to the Petitioner as per the provisions of the Tariff Regulations, 2024.

3.45 Tariff filings forms for determination of tariff for the Control Period FY 2024-25 to FY 2028-29 as per the Tariff Regulations 2024 are enclosed as **ANNEXURE P/8.**

IV. Prayers

4.1 The Petitioner therefore in terms of submissions made above, most respectfully prays that this Hon'ble Commission be pleased to adjudicate upon the present Petition to:

a. Admit the Present Petition;

b. Approve the projected Additional Capital Expenditure for bund raising of Ash Dyke Lagoon-2 (2nd Raising) in accordance with the Regulation 21(B)(d) of UPERC Tariff Regulations, 2024;

c. Approve the projected Annual Fixed Charges for supplying the regulated Contracted Capacity of 1200 MW to UPPCL for the Control Period FY 2024-25 to FY 2028-29;

d. Provide the workable excel model used by the Hon'ble Commission for approval of Multi Year Tariff for the Control Period from FY 2024-25 to FY 2028-29; and

e. Condone any shortcomings in the Petition and allow the Petitioner to submit additional information as may be required or directed by the Hon'ble Commission at a later stage.

For Rosa Power Supply Company Limited

Place: Lucknow
Date : 08.07.2025

(Sumeet Notani)
Authorised Signatory

ANNEXURE - P/1

AMENDED AND RESTATED POWER PURCHASE AGREEMENT DATED AS OF NOVEMBER 12, 2006

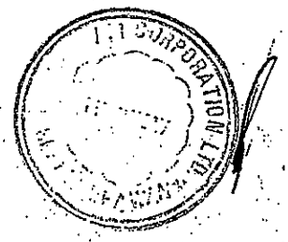
BETWEEN

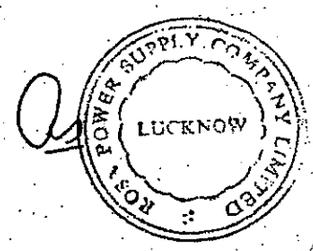
UTTAR PRADESH POWER CORPORATION LIMITED

AND

ROSA POWER SUPPLY COMPANY LIMITED

(AS APPROVED BY UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION)







उत्तर प्रदेश UTTAR PRADESH

THIS AMENDED AND RESTATED POWER PURCHASE AGREEMENT (this "Agreement") entered into on the November 12, 2006 at Lucknow, between:

Uttar Pradesh Power Corporation Limited, a Company registered under the Companies Act, 1956, having its head office at 14, Ashok Marg, Shakti Bhawan, Lucknow 226 001, Uttar Pradesh, India (hereinafter referred to as the "UPPCL" which expression shall, unless repugnant to the context or meaning thereof, include its legal successors, permitted assigns and legal representatives) of the First Part AND,

ROSA POWER SUPPLY COMPANY LIMITED, a Company incorporated under the Companies Act, 1956, having its Registered Office at 4th Floor, Trade Tower, 94 Mahatma Gandhi Marg, Lucknow, 226 001, Uttar Pradesh, India (hereinafter referred to as "ROSA", which expression shall, unless repugnant to the context or meaning thereof, include its successors, permitted assigns and legal representatives), of the Second Part;

WITNESSETH

WHEREAS:

A. ROSA intends to design, construct, own and operate a new coal-fired thermal power generation Station at ROSA in the Shahjahanpur District, in the State of Uttar Pradesh consisting of two steam turbines with aggregate Nameplate Capacity of 600 MW (2 x 300 MW) together with coal-fired boilers and other associated equipment including, without limitation, all improvements contemplated to be constructed on and/or made to the Site (as hereinafter defined) as more specifically described in Schedule 1 and Schedule 5 hereto (collectively, the "Station").

B. The erstwhile Uttar Pradesh State Electricity Board (UPSEB) was unbundled into following corporations with effect from January 14, 2000:-

(i) Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL);
(ii) Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL); and
(iii) Uttar Pradesh Power Corporation Limited (UPPCL).

UPPCL is the successor of the erstwhile UPSEB's obligations under this Agreement and Implementation Agreement.

C. The Station is to be implemented in accordance with the Power Purchase Agreement dated September 24, 1998 between ROSA and the UPSEB, the predecessor of UPPCL, as amended by the First Supplemental Agreement dated September 24, 1999 (collectively, the "PPA").

D. The erstwhile UPSEB (now UPPCL) had agreed to construct, own and operate the proposed External Interconnection Facilities (as more particularly described in Schedule 5).

E. The erstwhile UPSEB (now UPPCL) had agreed to purchase and accept delivery into the UPPCL System all electrical energy generated by the Station and to pay for the Capacity and electrical energy so generated and/or made available to UPSEB all upon and subject to the terms and conditions of this Agreement.

F. The erstwhile UPSEB and ROSA had executed a Draft Power Purchase Agreement on December 27, 1996 which was ratified by the Government of Uttar Pradesh on June 24, 1998.

G. ROSA had obtained the Techno Economic Clearance of Central Electricity Authority by its letter No.2/UP/22/94-PAC/11909-32 dated September 19, 1997.

H. The Government of India has issued a Notification SC No.496 (E) dated June 9, 1998 affecting tariff calculations requiring changes in the Draft PPA dated December 27, 1996.

I. Pursuant to the enactment of the Uttar Pradesh Electricity Reforms Act, 1999 and the Electricity Act, 2003, and the issue of Central Electricity Regulatory Commission Tariff Regulations on March 26, 2004, the Uttar Pradesh Electricity Regulatory Commission has issued terms and conditions for determination of generation tariff on June 7, 2005 and the UP Power Policy, 2003 (amended in June, 2004) has been promulgated by the Government of Uttar Pradesh (GoUP);

J. In view of the above and keeping in mind the requirement of the Financing Parties who are providing the financial assistance for the Project, the Parties have mutually agreed to amend and restate the Provisions of the PPA;

K. This Agreement has been approved by UPERC by way of following orders, a copy of which forming part of this Agreement are provided in Schedule 11:-

(i) Order dated February 2, 2006
(ii) Order dated November 1, 2006
(iii) Order dated November 8, 2006

U.P. POWER CORPORATION LTD. SHAKTI BHAWAN LUCKNOW

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Both Parties hereby agree that in case of inconsistency between the provision of this Agreement and the aforesaid orders, if any, the aforesaid orders shall prevail.

L. Availability Based Tariff (ABT) mechanism is currently applicable to the regional system and a similar mechanism would be made applicable to the generating plants within the state of Uttar Pradesh. The Parties hereby agree that as and when the relevant regulations about operationalization of ABT mechanism in Uttar Pradesh are made applicable by the UPERC, the same shall be followed by the parties.

NOW, THEREFORE, in view of the foregoing premises and in consideration of the mutual covenants and agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the UPPCL and ROSA agree to amend and restate the PPA as follows:-

ARTICLE 1

DEFINITIONS AND INTERPRETATION

Section 1.1 Definitions

As used herein, the following terms shall have the following meanings:

Abandonment A willful and unexcused cessation of performance of obligations by one Party under this Agreement for a continuous period of Ninety (90) days for reasons other than Force Majeure. Provided that termination of the Agreement due to default of the other Party or by mutual consent of both Parties or under Force Majeure conditions as provided herein shall not constitute Abandonment. Abandonment shall include construction Abandonment and operations Abandonment.

Accepted Industry Practice shall mean the practices, methods and standards, as changed from time to time, generally accepted internationally or use in electrical utility industry not inferior to Indian standards, in connection with the operation and maintenance of electric generating and transmission equipment of the type applicable to the Station and the Internal Interconnection Facilities, and which practices, methods and standards generally conform to operation and maintenance standards recommended by the Station's equipment suppliers and manufacturers having regard for the circumstances and operational requirements of the Station under this Agreement.

Achievable Plant Load Factor shall mean, with respect to a Unit or Station, Plant Load Factor of Eighty percent (80.00%).

Act shall mean the Electricity Act, 2003 as may be amended from time to time.

Active Power shall mean the product of voltage and the current and the cosine of phase angle between them, measured in units of watts or standard multiples thereof.

Adjusted Plant Load Factor shall mean the ratio, expressed as a percentage of Available Energy plus Deemed Energy minus Declared Capacity Penalty and the maximum of such units (kWh) (subject to Political Force Majeure and UPPCL Force Majeure conditions) of electrical energy that could theoretically be generated by the Station with reference to the Established Baseload Capacity, in any operating period (month, year or fraction thereof).

Affiliate shall mean, as to any Person, any other Person which directly or indirectly controls or is controlled under common control with, or is controlled by such Person. As used in this definition "control" (including with its correlative meanings, "controlled by" and "under common control with") shall mean possession, directly or indirectly, of power to direct or cause the direction of management or policies (whether through ownership of securities or partnership or other ownership interests, by contract or otherwise), provided that, in any event, any Person which owns directly or indirectly Fifty per cent (50%) or more of the securities having ordinary voting power for the election of directors or other ownership interests of any other Person (other than as a limited partner of such other Person) will be deemed to control such corporation or other Person. Notwithstanding the foregoing no individual shall be deemed to be an affiliate of a corporation solely by reason of his or her being an officer or director of such corporation. For the avoidance of doubt, without any limitation, Reliance Energy Generation Limited is an Affiliate of ROSA.

Agreement shall mean this amended and restated Power Purchase Agreement, including all Schedules hereto.

Approval Date shall mean August 2, 1994, which is the date of the approval by UPSEB of the proposal submitted with respect to the development, construction and operation of the Station.

Auxiliary Consumption shall mean, in relation to a period, the quantum of energy consumed by auxiliary equipment of the generating station and transformer losses within the generating station, and shall be expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station. For the purpose of the PPA, the normative Auxiliary Consumption shall be 9.00% of gross units generated at generator terminals with cooling tower and motor driven boiler feed pumps.

Availability Declarations shall mean from the Unit 1 Commercial Operation Date, written declarations made by ROSA and delivered to UPPCL pursuant to Section 6.3 and Schedule 8 hereof.

Available Energy shall mean with respect to any operating period (month, year or fraction thereof) the amount of Active Power that the "Station" generates (metered at the generator terminals) during such period.

Business Day shall mean any day other than a day on which commercial banks in Lucknow, Uttar Pradesh, India are authorized or required to be closed.

Capacity shall mean the capability of the Station measured in MW at any time to produce and deliver Active Power.

Capital Cost shall mean the total expenditure actually incurred by ROSA, in setting up and constructing the Station, on acquisition and development of land, on consultancy, design, supply, transport, construction, erection, testing, buildings including staff quarters, plant and equipment, material, work or facilities, required to enable the Station to deliver rated output, in accordance with the initial estimates approved by UPPCL/GOUP and the UPERC, and revised estimate (i) if due to Station Force Majeure (not insurable and not attributable to ROSA). UPPCL Force Majeure and Change in Law as commented upon by UPPCL/GOUP and approved by the UPERC (ii) if mutually agreed between UPPCL and ROSA as approved by the UPERC and (iii) if due to UPPCL default as approved by the UPERC, with due regard to efficiency and economy, and includes, inter alia.

1. Any development costs directly related to the Station.

2. Any reasonable financing costs (including all reasonable fees, premia and the like) to raise Debt and Equity (including reasonable standby loans to meet Station cost overrun, subject to ROSA subscribed to additional Equity) in accordance with the financial package approved by UPPCL and the UPERC.

3. Interest During Construction in accordance with the financial package approved by UPPCL and the UPERC.

4. All reasonable insurance costs relating to the construction of the Station for periods not extending beyond Unit II Commercial Operation Date in accordance with the insurance package approved by UPPCL, UPERC, and Financing

Parties. ROSA shall use all reasonable endeavours to ensure that there is no unnecessary over insurance or duplicate of insurance cover for the Station.

5. All expenditure on outdoor yard equipment and switchgear, transformers and metering and protection equipment and the like, necessary to deliver the electrical energy from the Station to the UPPCL System in accordance with the grid technical limits.

6. Cost of spares procured along with the equipment, subject to the limitation that such cost does not exceed Two point Five per cent (2.5%) of the original project cost as on the date of first financial year closing after one year of the date of commercial operation of the generating station.

7. Cost of reasonable quantities of start-up fuels, no part of which is included in the cost of Infirm Power.

8. Cost of any capital additions as commented on by UPPCL/GOUP and thereafter approved by the UPERC subject to the provisions in Subsection 12.21, 12.22 and Article 14 or other relevant provisions.

9. Reasonable expenditure incurred at operation and maintenance charges in relation to each Unit after its Synchronisation Date but before its Commercial Operation Date no part of which is included in the cost of Infirm Power.

Explanation 1 :

Where ROSA has actually incurred any expenditure towards Capital Cost in one or more foreign currencies for the purpose of computing the Capital Cost, such expenditure shall be converted into the Rupee equivalent at the Current Rate of Exchange as on the dates on which the expenditure was incurred and no such adjustment for the purpose of Tariff fixation shall take place after the Unit II Commercial Operation Date except to the extent of Capital Expenditure as may be required due to Force Majeure or Change in Law. In respect of any such expenditure towards Capital Cost arising under the terms of any contract entered into prior to the Unit II Commercial Operation Date and payment for which is to be made following Commercial Operation Date the Current Rate of Exchange as on the actual due date of payment as approved by UPERC shall apply.

Explanation 2 :

For the purpose of clarification, the Capital Cost for the purpose of Tariff equals the sum of Debt and Equity reduced by the margin money towards Working Capital.

Explanation 3 :

It is clarified that Capital Cost means the lower of the following:

(a) The total capital expenditure actually incurred on the Station.

(b) Rs. 12,923 Million plus US $ 296.6 Million, as approved and capped by the UPERC vide order dated November 1, 2006. This amount may be revised from time to time, to take into account any change in Capital Cost due to any expenditure resulting from Political Force Majeure Event and Change in Law, UPPCL default, mutual Agreement and UPPCL Force Majeure. In case of Station Force Majeure (not insurable and not

attributable to ROSA) increase in Capital Cost will be commented by UPPCL/GOUP and approved by the UPERC.

Central Electricity Regulatory Commission or **CERC** shall mean the Central Commission constituted in accordance with section 76 of the Electricity Act, 2003.

Change in Law shall have the meaning as specified in Subsection 12.19.

Coal Supply Contract shall mean the Agreement between ROSA and the Central Coalfields Ltd., relating to the supply of Primary Fuel to the Station as approved by UPPCL (or such other Agreements for the supply of Primary Fuel as may be entered into between ROSA and Primary Fuel Supplier from time to time in consultation with UPPCL, including but not limited to any of the purchase orders to be placed by Rosa for procurement of coal on spot purchase or short term contracts for procurement of coal on short-term basis from both domestic / international suppliers).

Commercial Operation shall mean the State of a Unit when it is capable of delivering Active Power and Reactive Power on a commercial basis to UPPCL as so specified by ROSA.

Commercial Operation Date or COD shall mean with respect to each Unit, midnight next following UPPCL's receipt of the Performance Test Report specified in Schedule 6 by the designated engineer and the result of the performance test showing that the tested capacity is not less than 95% of the Nameplate Capacity and as declared by ROSA to be capable of commercial operation and which shall not be more than one hundred and eighty (180) days from the Scheduled Synchronisation Date or such extension provided due to Force Majeure Events occurring between Synchronisation Date and Scheduled Commercial Operation Date.

Explanation:

ROSA may, at any time by written notice to UPPCL but not later than one (1) month from the Date of Financial Closing, redesignate any date falling not more than nine (9) months before the Scheduled Commercial Operation Date of either Unit (as on the Effective Date) as the new Scheduled Commercial Operation Date for that Unit, and the expression 'Scheduled Commercial Operation Date' when used in this Agreement, including, without limitation, in the definition of Scheduled Synchronisation Date, shall mean the date so redesignated.

Construction Contract shall mean the fixed price contract entered into by ROSA with the EPC Contractor, for the design, supply, construction, commissioning and testing of the Station and placing the Station into Commercial Operation and containing the warranties with respect to the Capacity and performance of the Station. UPPCL will observe the finalisation of the Construction Contract. ROSA shall keep UPPCL advised about the details of the Construction Contract.

Construction Period shall mean with respect of each Unit the period from the Date of Financial Closing till the Commercial Operation Date of that Unit.

Construction Schedule shall mean the schedule setting forth the timing for the construction of the Station prepared by the EPC Contractor and approved by ROSA.

Contractor shall mean the EPC Contractor, O & M Contractor, and all other contractors to ROSA (and the respective sub-contractors of all the foregoing) in their respective capacities as such and the successors and permitted assigns of the foregoing.

Control Centre shall mean the relevant State Load Despatch Centre or Regional Load Despatch Centre as defined under the Act which shall issue Despatch Instructions to the Company.

Core Business shall mean the regulated activity of generation of electricity and shall exclude any unrelated business, such as consultancy services, etc, of ROSA.

Cost of Fuel shall mean the Cost of Primary Fuel plus the Cost of Secondary Fuel.

Cost of Primary Fuel shall have the meaning specified in Subsection 12.3(b) hereof.

Cost of Secondary Fuel shall have the meaning specified in Subsection 12.3(c).

Current Rate(s) of Exchange shall mean the market rate(s) of foreign exchange not exceeding the highest State Bank of India (SBI) TT selling rates applicable to any liability of ROSA in respect of any installment of the principal or any interest on any Foreign Debt or where applicable in respect of any Return on Foreign Equity as on the date on which such installment or as the case may be such Return on Foreign Equity becomes due.

Daily Declared Capacity shall be the Capacity of the Station at the generator terminals, declared by ROSA at 10.00 hours every day for the next 24 hours, or a modified declared Capacity through a written notice to UPPCL, for the purpose of calculating "Deemed Energy" and any "Declared Capacity Penalty" calculated pursuant to Schedule 8.

Date of Financial Closing shall mean the date upon which the Financing Documents relating to the Station have been executed and delivered by all the Parties thereto and the conditions precedent provided thereunder shall have been fulfilled or waived to such an extent as may be necessary to permit ROSA to have immediate access, subject only to giving notices of draw-down required thereby, to fund adequately the construction of the Station upon terms and subject to conditions satisfactory to ROSA and Financing Parties.

Day shall mean the 24 hour period beginning at 00:00 hours (New Delhi time).

Debt means the amount of any loan, debenture or other similar obligation contracted or raised and received by ROSA under the Financing Documents, as more specifically set forth in Schedule 10 attached hereto, and actually expended (or to be expended), which shall not be greater than the principal amount of Debt specified in the applicable currency in the estimate of Capital Cost of the Station as set forth in the financial package to be approved by UPPCL/GOUP and the UPERC or any revised financial package as commented by UPPCL/GOUP and approved by the UPERC.

Explanation 1

Foreign Debt shall mean any Debt contracted or raised and received by ROSA under the Financing Documents, in a currency other than Rupees in cash or otherwise, the principal and interest on which is payable in such foreign currencies.

Explanation 2:

The principal amount of interest rates applicable to fees due with respect to and payment or amortization schedule for all Debt for which ROSA has received

commitments from lenders as of the Date of Financial Closing shall be subject to approval by UPPCL/GOUP and the UPERC or before such date. Any additional Debt for which ROSA may receive commitments thereafter shall constitute debt for purposes of this Agreement if and to the extent provided to ROSA on commercially reasonable terms as to amounts, rates of interest, fees payable, schedules for repayment, as commented by UPPCL/GOUP and approved by the UPERC. Such approval will not be unreasonably withheld or delayed. In addition, any Debt greater than that set forth in the financial package (that is to be approved by UPPCL/GOUP and the UPERC) will be subject to comments by UPPCL/GOUP and approved by the UPERC.

Explanation 3:

Where any part of the Debt contracted is in the nature of the value of any asset or any valuable service of any nature, the valuation thereof shall be subject to approval by UPPCL/GOUP and the UPERC.

Debt Repayment means the amount of any liability of ROSA for the repayment of one or more installments of the principal of any Debt (and Foreign Debt Repayment means such liability in respect of Foreign Debt) and includes, with respect to any Foreign Debt, an amount equal to the actual Rupee equivalent of the amount of any such liability at the Current Rate of Exchange as specified in Schedule 10.

Explanation:

Where any part of Debt includes in whole or in part any redeemable debentures. Debt shall include such amounts of amortization, which together with appropriate interest thereon, on a compounding basis, would meet the obligation of redemption of the Debentures together with any premium on the specified date or dates of redemption of the said debentures.

Debt Security shall mean the mortgages, hypothecation, security Agreements, guarantees and all other documents and instruments required by the Financing Parties as security for the Debt to be executed and delivered to the Financing Parties who provide the Debt.

Declared Capacity Penalty shall mean the penalty imposed on ROSA as a result of its failure to achieve the Capacity as instructed by UPPCL through Despatch Instructions, and which is less than or equal to the Daily Declared Capacity or most recent modification thereto as indicated to UPPCL or Control Centre in accordance with Section 6.2 and Schedule 8. The amount of any Declared Capacity Penalty will be calculated pursuant to Schedule 8.

Explanation:

In case of trip out of a unit or both the Units, and intimated to UPPCL in an hour's time, no Declared Capacity Penalty will be levied for failure to achieve the Capacity as instructed by UPPCL or Control Centre through Despatch Instruction during that period of one hour.

Deemed Energy shall mean, for any Operating Period, the number of units of energy (kWh) which ROSA was in a position to generate during such operating period, with reference to actual level of generation then existing and with reference to the Daily Declared Capacity or the most recent modification thereto as last modified and indicated to UPPCL, but did no generate as a result of (I) Despatch Instruction from UPPCL or (ii) failure to take delivery of electricity by UPPCL due to grid disturbance attributable to

UPPCL as determined by Northern Regional Electricity Board (NREB) or similar authority but not due to any Force Majeure Event or (iii) payment default by UPPCL including any failure to provide/sustain agreed security package.

Default Rate shall mean the Working Capital Interest Rate plus Two per cent (2%).

Demonstration Period shall mean the period of seventy two (72) consecutive hours selected by ROSA in its absolute discretion for conducting Tests contemplated by Schedule 6 hereof.

Depreciation shall mean the sum of amount of depreciation and Advance Against Depreciation calculated as per the provisions of Clause 12.2 (d) of this Agreement.

Explanation:

Land used for ash disposal shall be treated as depreciable asset if approved by the UPERC

Despatch Instruction shall mean the instructions from the Control Centre in accordance with the IEGC, Accepted Utility Practices and this Agreement to schedule and control the generation at the Project in order to commence or not commence generation, or increase, decrease or cease the electrical energy delivered by the Project

Development Stage shall mean the period from the Approval Date to Unit II Commercial Operation Date.

Directive shall mean any present or future requirement, instruction, direction, order, regulation or rule of any Governmental Authority which is legally binding or which would customarily be observed by a reasonable and prudent owner. Operator or Contractor of facilities such as the Station and any modification, extension or replacement thereof from time to time in force.

Dollar or $ shall mean the lawful currency of the United States of America.

Due Date of Payment shall mean in relation to any amount the 30th day after the receipt of invoice of that amount by UPPCL.

Effective Date shall mean the date of execution and delivery of this Agreement by the Parties.

Emergency Conditions shall mean a condition or situation (including system tripping) as contemplated by Subsection 6.5 (a) and 6.5 (b) hereof.

Equity means the amount of paid-up and subscribed share capital (including any share premium) contributed by the promoters, public or any other towards the share capital of ROSA, but only to the extent that the proceeds of such capital contribution are exclusively utilized on the Capital Cost of the Station, including, without limitation, to fund any increases thereof pursuant to Section 12.21 or Section 12.22, required to be invested in accordance with the approval of UPPCL/GOUP, the UPERC and the requirements of Financing Parties. Any other contribution by the promoters or any others, not forming part of Debt and not bearing any interest or other similar remuneration, the proceeds of which are exclusively utilized on the Capital Cost of the Station including, without limitation, to fund any increase thereof pursuant to Section 12.21 or Section 12.22, shall also constitute Equity.

Explanation:

Foreign Equity shall mean Equity paid up or contributed in a currency other than Rupees.

Escrow Account shall have the meaning as specified in Section 12.15 (c).

Established Baseload Capacity shall mean the Tested Capacity or Nameplate Capacity in Mega Watt of each of the Units measured at the generator terminal, whichever is higher, and will remain unaltered over the Terms of the Agreement.

Event of Default shall mean an event specified in Article 16.

Experts shall mean the experts appointed by the Parties hereto pursuant to Subsection 17.2 (b) hereof.

External Interconnection Facilities shall mean all of the facilities to be installed, owned, operated and/or controlled by UPPCL, including the 220 KV transmission lines, metering equipment, transformers and associated equipment and telemetering equipment described in Schedule 5 hereto.

Financing Documents shall mean the Agreements and documents between ROSA and the Financing Parties (other than ROSA and its Affiliates), as approved by the UPERC in consultation with UPPCL/GOUP, relating to the financing of the design, construction, commissioning, operation and/or maintenance of the Station and any collateral security pledged to the Financing Parties in respect thereof (other than by way of Equity or quasi-Equity participation) and shall without limitation include the Debt security.

Financing Parties shall mean the lenders, export credit agencies, multilateral and/or bilateral institutions, and others providing financing and refinancing to or on behalf of ROSA pursuant to the Financing Documents for the design, construction, commissioning, operation and/or maintenance of the Station or any portion thereof and any trustee or agent acting on behalf of such Parties.

Fixed Charge shall have the meaning specified in Section 12.2 hereof.

Force Majeure Events shall mean the events and circumstances described in Article 14 hereof.

Forced Outage shall mean, for any Unit or the Station, an interruption of such Unit's or the Station's generating Capacity, that is (I) not a Scheduled Outage; (ii) not the result of a Force Majeure Event; (iii) not the result of any act of or event or condition caused by UPPCL or the Control Centre or attributable to an event or condition on the UPPCL System; and (iv) not accruing due to Emergency Conditions.

Fuel shall mean the Primary Fuel and Secondary Fuel.

Gazette shall mean, for the purpose of Schedule 7, the Gazette of India which publishes from time to time resolutions passed under the authority of the Government of India relating to inter alia policies applicable to the development by private entities of power stations in India.

GOI shall mean the Government of the Republic of India.

GOI Guarantee and Support Agreement shall mean the guarantee and support Agreement if available, provided by GOI in respect of UPPCL's obligation under this Agreement.

GOUP shall mean the Government of the State of Uttar Pradesh.

GOUP Guarantee shall mean the guarantee provided by the Government of Uttar Pradesh in respect of UPPCL's obligation under this Agreement.

Government Approval shall mean any authorisation permit clearance license consent exemption or approval from or required by any Government Authority for the Station including without limitation those approvals set forth in Schedule 2 hereto.

Governmental Authority shall mean GOI, GOUP, the CERC, the UPERC or any regional municipal or local authority or regulatory department, body, political sub division, commission, agency, ministry, court judicial or administrative body, taxing authority or other authority having jurisdiction over either Party, the Station or the UPPCL System.

IEGC means the Indian Electricity Grid Code which sets out the rules, guidelines and standards notified from time to time by the CTU for the operation of the Grid System.

Implementation Agreement shall mean the Implementation Agreement dated February 23, 1999 as may be supplemented and/or amended from time to time.

Incentive Charge shall have the meaning specified in Section 12.4 hereof.

Infirm Power shall mean electrical energy produced by any Unit and delivered to UPPCL after Synchronisation Date and prior to the Commercial Operation Date of that Unit.

Initial Tariff Period shall mean the period from the Unit I Commercial Operation Date to Unit II Commercial Operation Date.

Interconnection Points shall mean the physical points identified in Schedule 5 hereto as the Interconnection Points adjacent to the Station which will be provided by ROSA and to which UPPCL is to interconnect the External Interconnection Facilities and the UPPCL System.

Interest During Construction (IDC) means the interest, if any, accrued on the Debt entered into by ROSA with the approval of UPERC, calculated on the balances of Debt actually remaining to be discharged, from time to time, as capitalised, at the rates of interest specified in terms of such Debt upto the Unit II Commercial Operation Date, as specified in Schedule 10.

Interest on Debt shall mean the actual interest payment liability devolving on ROSA arising after the Unit I Commercial Operation Date on the Debt of ROSA after taking into account the actual payment liability as regards Debt under the terms thereof as specified in Schedule 10, and includes the actual Rupee equivalent of such liability on Foreign Debt at the Current Rate of Exchange applicable thereto, and shall cease as soon as the Debt is fully redeemed.

Internal Interconnection Facilities shall mean all the facilities to be installed by ROSA with the Site to enable UPPCL to receive electrical energy from the Station at the Interconnection Points including all metering equipment, transformers and associated

equipment, relay and switching equipment, protective devices and safety equipment and telemetering equipment as more specifically described in Schedule 5 hereto.

kcals shall mean kilocalories

kV shall mean kilovolts

kW shall mean kilowatt

kWh shall mean kilowatt-hour

Law shall have the meaning as specified in Section 12.18.

Letter of Credit shall mean an irrevocable revolving Letter of Credit as described in Section 12.15(a) hereof.

MCR shall mean Maximum Continuous Rating of the Unit as specified by the equipment manufacturer.

Maintenance Programme shall mean with respect to each Unit a programme of scheduled maintenance as specified in Section 6.9 hereof.

Materially (in relation to a Force Majeure Event) shall mean the inability of the Station to run at a high enough Plant Load Factor to receive its full Fixed Charge.

Measured Energy shall mean the energy measured in KWH or standard multiples thereof as measured at the Interconnection Points of the Station over a specified period of time.

Metering Points shall mean the physical points as specified in Schedule 5, Part-C, where the ROSA Meters and the UPPCL Meters are installed.

MW shall mean megawatt.

MVA shall mean mega-volt amperes.

MWh shall mean megawatt-hour.

Month shall mean a calendar month according to the Gregorian calendar.

Nameplate Capacity shall mean with respect to each Unit, the Capacity of each Unit at the generator terminal, being 300 MW and with respect to the Station, the Capacity of the Station at the generator terminals, being 600 MW.

Net Electrical Output shall mean, for any Unit or the Station for any operating period, the Available Energy of such Unit or the Station during such operating period, net of Auxiliary Consumption.

O & M Expenses shall mean the total of plant operations, maintenance and insurance expenses as specified in Section 12.2 (e).

Operating Characteristics shall mean the major equipment and system characteristics of Unit I and Unit II as confirmed by the EPC Contractor and equipment supplier and as specified in Schedule 3.

Operating Month shall mean the period from the midnight following the Unit I Commercial Operation Date till the end of 2400 hours on the 14th Day of that Month if Commercial Operation Date of Unit 1 occurs before that date or till the end of 2400 hours of the 14th day of the next month if Commercial Operation Date occurs after 14th day of the particular Unit and thereafter the period commencing at 0000 hours on the 15th Day of the Month and ending at 2400 hours on the 14th day of the following Month.

Operator shall mean the company, if any, which will operate and maintain the Station pursuant to the O & M Agreement.

Parties shall mean, collectively, ROSA and UPPCL and individually either of them.

Performance Test means the test of a Unit's rated capacity carried out in accordance with paragraph II of Schedule 6 of the Power Purchase Agreement. Any reference to Tests in Section 5.6 or elsewhere shall include such Performance Tests.

Person shall mean any individual, corporation, company, partnership, joint venture, voluntary association, trust, un-incorporated organisation or Governmental Agency, instrumentality or political subdivision thereof.

Plant Load Factor shall mean the ratio, expressed as a percentage of the number of units (kWh) of electrical energy generated by the Station in any Tariff Year, to the maximum of such units (kWh) of electrical energy that could theoretically be generated by the Station with reference to the Established Baseload Capacity.

Primary Fuel shall mean coal.

Reactive Power shall mean the product of voltage and the current and the sine of the phase angle between them, measured in units of volt-amperes-reactive (VAR) and standard multiples thereof.

Return on Equity shall be computed on the equity base determined in accordance with Debt –Equity stipulation below @ 14% per annum.

Debt–equity ratio as on the date of commercial operation shall be 70:30 for determination of tariff. If equity employed is more than 30%, the amount of equity for determination of tariff shall be limited to 30% and the balance amount shall be considered as the normative loan.

Provided that in case the actual equity employed is less than 30%, the actual debt and equity shall be considered for determination of tariff.

Provided that equity invested in foreign currency shall be allowed a return up to the prescribed limit in the same currency and the payment on this account shall be made in Indian Rupee based on the exchange rate prevailing on the due date of billing.

The premium, if any, raised by ROSA while issuing share capital and investment of internal resources created out of free reserve of the generating company, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station and forms part of the approved financial package.

Rupees or **Rs.** shall mean the lawful currency of the Republic of India.

Scheduled Unit I Commercial Operation Date shall mean such date as shall be not more than forty one (41) months from November 1, 2006, in accordance with UPERC Order dated November 8, 2006, subject to the extension of time by UPERC or due to Force Majeure Events.

Scheduled Unit II Commercial Operation Date shall mean such date as shall be not more than forty four (44) months from November 1, 2006, in accordance with UPERC Order dated November 8, 2006, subject to the extension of time by UPERC or due to Force Majeure Events.

Scheduled Bank shall mean any Scheduled Indian Bank as indicated by UPPCL and as reasonably acceptable to ROSA.

Scheduled Outage shall mean, as to any Unit, a planned interruption of the electric generating capability of such Unit for the performance of the Maintenance Programme pursuant to Section 6.9 hereof (including any interruption required for routine or other inspections of the Station or replacement of such Unit or any component thereof).

Scheduled Synchronisation Date shall mean with respect to each Unit such date as shall be declared by ROSA in writing, at least One Hundred and Twenty (120) days prior to such date, as being the date on which ROSA will attempt to cause a Unit to be electrically synchronised and connected to the UPPCL System and which shall not be more than one hundred and eighty (180) days prior to the Scheduled Commercial Operation Date for such Unit.

Secondary Fuel shall mean fuel oil and/or propane.

Secondary Fuel Contract shall mean a legally binding contract between ROSA and the Secondary Fuel supplier.

Secondary Fuel Transportation Contract shall mean the contract specified in Subsection 2.2(a) (vi).

Site shall mean the approximately 600 hectare Site known as ROSA near Rosa Village approximately 11 kms south of Shahjahanpur Town as more particularly defined in Schedule 1.

Stabilisation Period shall mean, as to any Unit, a period of One hundred Eighty (180) days commencing on the Commercial Operation Date of such Unit.

Station shall have the meaning specified in the first recital hereof.

Station Contract shall mean the Coal Supply Contract, Transportation Contract, Secondary Fuel Contract, Secondary Fuel Transportation Contract, Construction Contract, O & M Agreement (if any) and any other material contract to which ROSA is a Party relating to the development, construction, operation and/or maintenance of the Station.

Synchronisation Date shall mean, as to any Unit, the date upon which such Unit is synchronised into the UPPCL System via External Interconnection Facilities for the first time for commissioning, testing or initial start-up.

Tariff shall mean the rate for the purchase of electrical energy by UPPCL from ROSA under this Agreement, which shall comprise the Fixed Charge, the Variable Charge and the Incentive Charge as set forth in Article 12.

Tariff Year shall mean each twelve (12) Month period beginning at 00.00 hours on the 1st day of April of each year and ending Twelve (12) Months later (according to the Gregorian calendar) provided the First Tariff Year of the Term shall commence on the Unit II Commercial Operation Date and end at 2400 hours on the net 31st March and the last Tariff Year of the Term shall commence at 00.00 hours on the 1st day of April and end on the date of expiry of the Term. If any Tariff Year of the Term shall be less than Twelve (12) Months in duration all calculations relating to Tariff Year shall be adjusted on pro rata basis.

Taxes shall mean any tax, charge, cess, impost, tariff, duty or fee of any kind charged imposed or levied, directly or indirectly, by any Governmental Authority applicable to ROSA or the Station but excluding any tax or penalty imposed on ROSA by reason of ROSA's default.

Taxes on Income shall mean the taxes on the income streams of ROSA, from its core business, which shall be computed as an expense and shall be recovered from UPPCL.

Term shall have the meaning specified in Section 2.1 hereof.

Tests shall mean any one or more of the tests contemplated to be performed in accordance with this Agreement and referred to in Schedule 6 hereto and/or in Section 5.6 hereof.

Tested Capacity shall mean the Capacity of any Unit at the generator terminal established during the Tests carried out in the presence of both the Parties as specified in Schedule 6.

Transfer Date shall have the meaning as specified in Section 18.5

Unit shall mean either Unit I or Unit II

Unit I Commercial Operation Date shall mean the Commercial Operation Date of Unit I.

Unit II Commercial Operation Date shall mean the Commercial Operation Date of Unit II.

UPERC Approval Date shall mean the date of approval of this Agreement by the UPERC, i.e., November 1, 2006.

UPPCL System shall mean the electrical supply, distribution and transmission system owned, used or controlled by UPPCL and/or distribution companies in UP for the purpose of generating, transmitting and distributing electricity to UPPCL's customers.

Uttar Pradesh Electricity Regulatory Commission or **UPERC** shall mean the Uttar Pradesh Electricity Regulatory Commission referred to in Section 82 of the Act.

Variable Charge shall have the meaning as specified in Section 12.3.

Working Capital shall have the meaning specified in Section 12.2(c) hereof.

Working Capital Interest Rate shall mean the rates as may be actually obtained by ROSA from time to time based on lenders appropriate credit rating of ROSA subject to an upper limit of Two per cent (2%) over State Bank of India prime lending rate. If the

increase in the Working Capital Interest Rate is due to UPPCL default it shall be payable by UPPCL.

Section 1.2 Interpretation

Unless the context of this Agreement otherwise requires, the following rules of interpretation shall apply to this Agreement.

(a) the singular includes the plural, and the plural includes the singular;

(b) the worlds "hereof", "herein", "hereby", "hereto" and similar words refer to this entire Agreement and not any particular Article, Section, Schedule or any other Subsection of this Agreement;

(c) a reference to any "Article", "Section", Sub-section" or "Schedule" is a reference to a specific Article, Section, Sub-section or Schedule of this Agreement.

(d) a reference to any law, statute, regulation, notification or statutory provision includes any amendment, modification or re-enactment thereof.

(e) a reference to any agreement, contract or other document includes any amendment, supplement or other modification thereto and

(f) a reference to any Person includes such Person's successors and permitted assigns under any legislation, statutory scheme, agreement, contract or other document.

Section 1.3 Schedules

This Agreement includes the following attached Schedules

(a)	Schedule 1	-	Description of Station
(b)	Schedule 2	-	Major Clearances
(c)	Schedule 3	-	Generator Electrical Characteristics
(d)	Schedule 4	-	Fuel Specifications
(e)	Schedule 5	-	Transmission and Interconnection Procedures
(f)	Schedule 6	-	Tests
(g)	Schedule 7	-	Depreciation
(h)	Schedule 8	-	Despatch Procedures
(i)	Schedule 9	-	Metering Specifications
(i)	Schedule 10	-	Capital Cost/Debt/Equity
(k)	Schedule 11	-	UPERC Orders

All such Schedules form an integral part of this Agreement, and this Agreement shall be construed in light of such Schedules, provided that, in the event of any inconsistency in the terms of the main body of this Agreement and the terms of the Schedules, the terms of the main body of this Agreement shall prevail.

ARTICLE 2

TERM OF AGREEMENT AND CONDITIONS PRECEDENT

Section 2.1 Term

(a) This Agreement shall become effective on the Effective Date and shall continue in full force and effect, subject to earlier termination pursuant to Article 16. Article 18 and Section 2.7 hereof, for a period of twenty five (25) years from the Unit II Commercial Operation Date (the **"Initial Term"**).

(b) The Term of this Agreement can be extended beyond the Initial Term by delivering written notice by either Party not later than two (2) years prior to the end of the Initial Term, in which event the Term of this Agreement shall extend by mutual Agreement of the Parties for a mutually agreed period with such amendments as shall be mutually agreed by ROSA and UPPCL. Should the period of negotiations for the extension of the Initial Term of the Agreement extend beyond the expiry of the Initial Term of the Agreement, then, the terms and conditions, for the spill over period, until the negotiations are ended, will be mutually agreed by both the Parties.

(c) Notwithstanding anything to the contrary contained herein, if either Party exercises its right of renewal as aforesaid and if ROSA and UPPCL are unable to agree on the terms and conditions applicable during the mutually agreed period of the extended term, then the Term of this Agreement shall end on the date of expiry of the Initial Term.

(d) If at the expiry of the Initial Term, the Term of this agreement is not extended pursuant to the provisions of Section 2.1(b), then ROSA may, subject to applicable law, sell the Capacity of and any Active Power generated by the Station to any third party, or sell the Station and related assets to any third party. In such an event, UPPCL shall wheel such Active Power and UPPCL shall be entitled to recover wheeling charges for the same as stipulated by the UPERC.

Provided however that if ROSA exercises its option to sell the Station and related assets on expiry of this Agreement, UPPCL will have the first right to purchase the same from ROSA at a mutually agreed price, which shall not be lower than the market price of the Station and the related assets. The market price may be determined by Rosa by conducting a competitive bidding process for the assets.

Further, in case any agreement on price or other terms and conditions of sale is not reached within three (3) months of receipt of notice of offer by UPPCL, ROSA shall be at liberty to sell the Station and related assets to any third party.

(e) Notwithstanding anything to the contrary contained in this Agreement, the Scheduled Commercial Operation Date of any Unit shall be extended by the duration of any Force Majeure Event occurring during the Construction Period.

(f) Term shall mean the Initial Term and any additional period during which this Agreement is in effect as herein before provided.

Section 2.2 Conditions Precedent

(a) Conditions Precedent for ROSA

The obligations of ROSA under this Agreement shall become effective on the date specified in a notice from ROSA to UPPCL stating that the following conditions precedent have been fulfilled to ROSA's satisfaction or waived entirely by ROSA.

(i) GOUP has executed and delivered to ROSA a legally binding GOUP Guarantee, in favour of ROSA, on terms satisfactory to ROSA, relating to :

(1) the guarantee by GOUP of the obligations of UPPCL under this Agreement;

(2) all tax and regulatory clarifications and approvals within the jurisdiction of GOUP, and

(3) all necessary approvals, consents, exemptions, permits and agreements required by ROSA for the financing, design, construction, ownership, operation and maintenance of the Station at the Site under this Agreement and which are within the jurisdiction of GOUP.

(ii) UPPCL has agreed to deliver to ROSA on or before the Scheduled Synchronization Date of Unit 1, at its own cost, a revolving irrevocable Letter of Credit.

(iii) Coal Supply Contract, ROSA and selected suppliers have entered into legally binding Coal Supply Contract, as approved by UPPCL, relating to the supply of Primary Fuel to the Station, UPPCL shall exercise its right of approval within Forty Five (45) days of receipt of the Coal Supply Contract from ROSA which can be extended by GOUP under unavoidable circumstances for a further period of 15 days failing which the Coal Supply Contract will be deemed approved by UPPCL. UPPCL may disapprove it within the said period for reasons to be recorded. UPPCL may exercise its right to approve revised contract as submitted within a period of 15 days of submission.

(iv) Transportation Contract, ROSA and the Ministry of Railways have entered into a legally binding Transportation Contract as approved by UPPCL, relating to the transportation of Primary Fuel to the Station. UPPCL shall exercise its right of approval within Forty Five (45) days of receipt of the Transportation Contract from ROSA which can be extended by GOUP under unavoidable circumstances for a further period of 15 days failing which the Transportation Contract will be deemed approved by UPPCL. UPPCL may disapprove it within the said period for reasons to be recorded. UPPCL may exercise its right to approve revised contract as submitted within a period of 15 days of submission.

(v) Secondary Fuel Contracts: ROSA and the selected suppliers have entered into legally binding Secondary Fuel Contract, as approved by UPPCL, relating to the supply of Secondary Fuel to the Station. UPPCL shall exercise its right of approval within Forty Five (45) days of receipt of the Secondary Fuel Contract from ROSA, which can be extended by GOUP under unavoidable circumstances for a further period of 15 days failing which the Secondary Fuel Contract will be deemed approved by UPPCL. UPPCL may disapprove it within the said period for reasons to be recorded. UPPCL may exercise its right to approve revised contract as submitted within a period of 15 days of submission.

(vi) Secondary Fuel Transportation Contracts: ROSA and the selected transporter of Secondary Fuel have entered into legally binding Secondary Fuel Transportation Contract, as approved by UPPCL relating t the supply and transportation of Secondary Fuel to the Station. UPPCL shall exercise its right of approval within Forty Five (45) days of receipt of the Secondary Fuel Transportation Contract from ROSA, which can be extended by GOUP under unavoidable circumstances for a further period of 15 days failing which the Secondary Fuel Transportation Contract will be deemed approved by UPPCL. UPPCL may disapprove it within the said period for reasons to be recorded. UPPCL may exercise its right to approve revised contract as submitted within a period of 15 days of submission.

(vii) Water Usage Contract: ROSA and the Department of Irrigation, GOUP have entered into legally binding Water Usage Contract relating to supply of water to the Station.

(viii) UPPCL has agreed to establish an Escrow Account in favour of ROSA as a guarantee for the monthly reinstatement of the Letter of Credit as contemplated by Section 12.15 hereof and the terms of the Escrow Account are agreed to.

(ix) ROSA shall have been granted all Governmental Approvals, either unconditionally or subject to conditions which do not materially prejudice ROSA's rights, benefits or its ability to perform its obligations under the Agreement, and such Governmental Approvals shall be in full force and effect, provided ROSA, subject to the approval of the Financing Parties, may in its discretion accept in lieu thereof, written confirmation from the relevant Government Authority that such Governmental Approvals will be granted and will be in full force and effect at such time or times as shall be required so as not to impede ROSA's construction of the Station.

(x) To the extent same are within their respective jurisdiction, GOUP and/or UPPCL shall have provided, without cost to ROSA, all real property rights of access and agrees to and from the Station Site necessary and incidental to the construction, operation and maintenance of the Station commencing not later than the Date of Financial Closing.

(xi) To the extent same are within their respective jurisdiction, GOUP and/or UPPCL shall have provided or caused to be provided all necessary permits and Governmental Approvals for the electricity, and water supply required for the construction of the Station.

(xii) Financial Closing Date: Confirmation that the Date of Financial Closing has occurred or will occur on terms satisfactory to ROSA.

(xiii) Construction Contract: ROSA is satisfied it can enter into a legally binding Construction Contract for the design, engineering and construction of the Station on terms satisfactory to ROSA and the Capital Cost approved by UPERC and UPPCL. ROSA shall inform UPPCL and UPPCL shall have the option of sending a Person to observe the final specifications being agreed to in the Construction Contract between ROSA and the Contractor.

(xiv) O & M Contract: ROSA is satisfied it can enter into a legally binding O&M Contract (if required) for the operation and maintenance of the Station.

(xv) Other Approvals, Consents, Concessions and Exemptions: ROSA has obtained all Governmental Approvals, consents, concessions and exemptions required by the Financing Parties in relation to the development, construction and commercial operation of the Station.

(xvi) Site: ROSA is satisfied it can procure the Site for the Station on terms satisfactory to ROSA.

(xvii) Rosa shall have received copies of resolutions adopted by the UPPCL's Board of Directors authorizing the execution, delivery and performance by UPPCL of this Agreement, as certified by a director of UPPCL

(b) Except as may be waived by UPPCL, it shall be a condition precedent to the effectiveness of UPPCL's obligations under this Agreement other than UPPCL's obligations to use reasonable efforts to assist ROSA to achieve Financial Closing, that each of the following events shall have occurred.

(i) UPPCL shall have received copies of the charter documents for ROSA as certified by ROSA's Company Secretary.

(ii) UPPCL shall have received copies of resolutions adopted by ROSA's Board of Directors authorizing the execution, delivery and performance to ROSA of this Agreement, as certified by ROSA's Company Secretary.

(iii) UPPCL shall have received an opinion of legal counsel to ROSA, reasonably satisfactory to UPPCL, with respect to ROSA's authority to enter into this Agreement and the enforceability of the provisions contained herein and that ROSA has obtained all Government Approval, if any, required to be obtained before the Date of Financial Closing.

(iv) UPPCL shall have received copies of the Financing Documents and confirmation letter from ROSA's financial advisor supporting the view that the Station can be financed as contemplated hereby.

(c) Approval of Parties

(i) ROSA has received an opinion acceptable to it from the legal counsel of UPPCL relating to the enforceability of this Agreement against UPPCL and such other matters as ROSA may reasonably request in connection with the Station.

(ii) ROSA has received an opinion acceptable to it from the legal counsel of GOUP and GOI (if applicable) and the other respective Parties relating to the enforceability of the GOUP Guarantee, the Coal Supply Contract, the Transportation Contract, the Secondary Fuel Contract, Secondary Fuel Transportation Contract and any other contracts with GOUP and/or GOI and any respective departments or agencies thereof against GOUP, GOI and such other department and agencies respectively and such other matters as ROSA may reasonably request in connection with the Station.

Section 2.3 Obligation to use reasonable efforts to satisfy Conditions Precedent

(a) UPPCL shall use all reasonable efforts to assist ROSA in obtaining all Governmental Approvals, the Site, import and duty clearances, local governmental assistance, construction and backup power, and other services required for the construction, operation and maintenance of the Station, in each case, as contemplated by this Agreement. In addition, UPPCL shall use all reasonable efforts to ensure satisfaction in full of the conditions precedent set forth in Section 2.2 (a) hereof to the extent the fulfillment or satisfaction of such condition falls within its responsibility, influence or control.

(b) UPPCL shall, at the request of ROSA, afford all reasonable assistance to ROSA in achieving the Date of Financial Closing, including, without limitation, the prompt execution and delivery of all documents required by the Financing Parties to protect or secure their respective interests in this Agreement and/or the Station, as required.

(c) ROSA shall use all reasonable efforts to assist UPPCL and to ensure satisfaction in full of the conditions precedent as set forth in Section 2.2 (b) hereof to the extent the fulfillment or satisfaction of such condition falls within its responsibility, influence or control.

Section 2.4 Notice of Satisfaction of Conditions Precedent

(a) All conditions precedent specified in Section 2.2 (a) hereof shall be completed to the satisfaction of ROSA or waived in writing by ROSA prior to such date as shall be Twelve (12) months or mutually agreed extended period from the UPERC Approval Date. All conditions specified in Section 2.2(b) hereof shall be completed to the satisfaction of UPPCL or waived in writing by UPPCL prior to such date as shall be Twelve (12)

months or mutually agreed extended period from the UPERC Approval Date.

(b) Upon the attainment or satisfaction of any conditions precedent, UPPCL or ROSA, as the case may be shall promptly deliver written notice thereof to the other.

(c) The written notice shall include particulars and circumstances supporting ROSA's or UPPCL's conclusion that the relevant conditions precedent has been satisfied.

(d) ROSA shall have the sole discretion to determine whether the conditions precedent to ROSA's obligations has been satisfied under this Agreement and UPPCL shall have the sole discretion to determine whether the conditions precedent to UPPCL's obligation has been satisfied under this Agreement.

Section 2.5 Non-fulfillment of Conditions Precedent

(a) In the event of non-fulfillment of the conditions precedent:

(i) If the conditions precedent are not satisfied or waived within the time specified in Section 2.4 (a) and therefore subject to subsection 2.5(a) (ii) and Section 2.6, either Party may terminate this Agreement upon the expiry of Thirty (30) days after delivery of 'Intended Termination Notice" to the other Party.

(ii) UPPCL or ROSA may request that the deadline for completion of conditions precedent be extended to a date that is agreeable and consented to by the other Party. Neither Party will be unreasonable in giving or agreeing to any such extension.

Section 2.6 Waiver of Non-fulfillment of Conditions Precedent

(a) The conditions precedent as specified in Section 2.2(a) are for the sole benefit of ROSA and may be waived or removed by ROSA by written notice to UPPCL. UPPCL has the sole authority to waive conditions as specified under Section 2.2(b) of this Agreement by written notice to ROSA.

Section 2.7 Termination due to Non-fulfillment of Conditions Precedent

(a) This Agreement shall terminate after the expiry of the "Intended Termination Notice" provided under Subsection 2.5 (a) (i) unless ROSA or UPPCL, as the case may be, waives non-fulfillment of the conditions precedent within the notice period.

(b) Subject to Subsection 2.7 (c) neither Party shall have any liability or obligations to the other arising from the termination of this Agreement due to non-fulfillment of conditions precedent.

(c) A Party shall be liable to the other for breach of its obligation to use reasonable efforts to satisfy conditions precedent under Section 2.2.

ARTICLE 3

DEVELOPMENT STAGE

Section 3.1 General

(a) The Development Stage shall comprise the period from the Approval Date until the Unit II Commercial Operation Date.

Section 3.2 ROSA's Obligations

(a) ROSA will identify, prepare, negotiate and enter into such preliminary agreements as may be necessary for the procurement of equipment, design, engineering, construction, financing, commissioning, testing of the Station and the Internal Interconnection Facilities.

(b) ROSA will identify and make arrangements, as may be necessary, for the construction of the Station and other Internal Interconnection Facilities, including the commissioning of necessary site, soil, geological, hydrographic and other surveys.

(c) ROSA shall acquire from the relevant Governmental Authority and maintain in full force and effect all Government Approvals and complete or have completed all environmental impact studies, which are necessary for the construction, operation and maintenance of the Station.

(d) ROSA will identify and make such arrangements, as may be necessary, for design and construction of road and rail access to the Site.

(e) ROSA will identify and make such arrangements, as may be necessary, for the design and construction of a colony to house the Station's permanent staff and for use during the Development Stage.

(f) ROSA shall ensure rehabilitation and resettlement of displaced Persons from the Site as per governing Law.

(g) ROSA shall reach financial close within Four (4) months from November 1, 2006 in accordance with UPERC Order dated November 8, 2006 and extension for financial close may be granted by mutual consent and UPERC approval unless the project is proven to be non-viable. If the financial close is not achieved within the aforesaid period, UPPCL has the right to terminate the Agreement without any liability on either Party.

Section 3.3 UPPCL'S Obligation

(a) UPPCL shall, at its own expense

(i) complete the construction and testing not later than Three Hundred and Sixty – Five (365) days for (1) and One Hundred and Eighty (180) days for (2) and Ninety (90) days for (3) prior to Scheduled Synchronization Date for Unit 1 of :

(1) the transient stability and load flow study on the UPPCL system;

(2) the External Interconnection Facilities to the extent required for providing start-up power to the Station;

(3) complete External Interconnection Facilities including connections to the 220 KV systems of UPPCL in order to evacuate the entire Capacity of the Station;

(ii) maintain the External Interconnection Facilities including the 220 KV transmission line healthy at all times to ensure reliable evacuation of power generated and import of Station Start-up Power.

(iii) acquire and maintain the transmission line right of way and advise ROSA of the location of the transmission line right of way;

(iv) co-operate and assist ROSA in identifying, preparing necessary applications and to liaison with all relevant Governmental Authorities in order for ROSA to obtain the necessary Government Approvals; and

(v) co-operate with and assist ROSA to liaison with all persons necessary for the procurement of equipment for, and the design, construction, financing, commissioning, testing of the Station; the electrical transmission facilities on the Stations' side of the Interconnection Points, and any other Internal Interconnection Facilities.

Section 3.4 Liability

(a) Notwithstanding anything in this Article, neither Party shall have any liability for any delays under this Article caused by the other Party nor shall any such delay affect the validity of this Agreement or the obligations of the Parties thereunder, except as provided in Section 5.8 and Section 9.5.

ARTICLE 4

CONSTRUCTION

Section 4.1 ROSA's Construction Responsibilities

(a) ROSA shall be responsible for the design, supply, construction, commissioning, testing and operation and warranty of

(i) the Station;

(ii) the 220 KV sub-Station Switchyard and electrical facilities on the Station side of the Interconnection Point.

(iii) Internal Interconnection Facilities; and

(iv) The colony to be constructed on the Site and supporting facilities

(b) ROSA shall notify UPPCL of any anticipated material changes to or delays in :

(i) the Construction Schedule referred to in Section 4.3;

(ii) the commissioning and/or testing of any Unit of the Station or the Internal Interconnection Facilities; or

(iii) achieving the Scheduled Unit I Commercial Operation Date and/or the Scheduled Unit II Commercial Operation Date.

(c) ROSA and UPPCL shall cooperate in good faith and use their best efforts to satisfy their obligations under this Agreement.

Section 4.2 The Site

(a) The Station shall be located at the Site, which shall be purchased, leased or otherwise acquired by ROSA.

Section 4.3 Construction Schedule

(a) ROSA shall provide notice to UPPCL of;

(i) the construction for the Station Thirty (30) days prior to starting construction of the Station;

(ii) a start-up and test schedule for the Station Forty-Five (45) days prior to start-up and testing of each Unit to be commissioned.

(b) ROSA shall submit progress report on the status of construction of the Station to UPPCL on a monthly basis until the Unit II Commercial Operation Date.

Section 4.4 Construction Power

(a) UPPCL shall install a transmission line to provide, deliver, maintain and sell subject to Section 6.13 hereof, electrical energy to ROSA at the Station Site in such quantities as ROSA may require and that UPPCL can make available to the best of its efforts for and after the Construction Period of the Station. ROSA shall provide for a back-up source of power as more specifically laid out in Schedule 5 which will be used for and after the Construction Period when UPPCL is unable to deliver power to the ROSA Site. UPPCL shall charge ROSA at UPPCL's most recently notified applicable tariff.

Section 4.5 Construction Services, Infrastructure and Utilities

(a) UPPCL, if possible, will assist ROSA in procuring the services, facilities and equipment including fresh water supply and communications facilities needed in such quantities as ROSA may require both during and after the Construction Period.

Section 4.6 Liability

(a) Notwithstanding anything in this Article, neither Party shall have any liability for any delays under this Article caused by the other Party nor shall any such delay affect the validity of this Agreement or the obligations of the Parties hereunder, except as provided in Section 5.8 and Section 9.5.

ARTICLE 5

SYNCHRONIZATION, TESTING AND COMMISSIONING

Section 5.1 Synchronization

(a) ROSA shall declare the Scheduled Synchronization Date of each Unit, in writing to UPPCL at least One Hundred and Twenty (120) days prior to such date. ROSA may change the Scheduled Synchronization Date for such Unit in writing no less than Four (4) weeks prior to the Scheduled Synchronization Date. However, this change will not affect the Scheduled Commercial Operation Date of the Unit except due to the occurrence of Force Majeure Events as specified in Article 14, occurring between the Synchronization Date and Scheduled Commercial Operation Date of the Unit.

(b) ROSA shall give notice to UPPCL at least Seven (7) Days prior to the date of synchronization of each generating Unit. UPPCL shall have the right to have representatives present at the Station on each Synchronization Date.

(c) UPPCL shall make such arrangements or changes to the External Interconnection Facilities or otherwise as shall be necessary to enable stable system operation and reliable power evacuation from the Station and power import into the Station as required, before the Scheduled Synchronization Date of any Unit.

Section 5.2 Procedures for Synchronization

(a) ROSA and UPPCL shall mutually complete written procedures not later than one hundred and twenty (120) days prior to the Scheduled Sychronization Date of the Unit which will govern the integration of the Station and the output thereof into the UPPCL System.

(b) The procedures will be mutually agreed upon based on the design of the Station and the design of the Internal Interconnection Facilities and External Interconnection Facilities. The procedures shall include Availability declarations for the Station (annual, monthly, weekly, and daily projections), dispatching procedures (which shall include monthly, weekly and daily dispatch schedules), the method of day-to-day communications, key personnel lists for both Station and the UPPCL Control, clearances and switching practices, outage scheduling, daily capacity and energy reports, Unit operations log and performance specifications of the Station.

(c) ROSA will operate and maintain the Station in accordance with the procedures developed pursuant to this Section and Accepted Industry Practice.

Section 5.3 Voltage

(a) ROSA shall operate the Station as per instructions issued by Control Centre and UPPCL subject to ROSA complying with Accepted Industry

Practice and conforming to the design values of the Station's electric generators specified in Schedule 3.

Section 5.4 Technical Parameters of Generating Equipment

(a) ROSA shall provide UPPCL with generator manufacturer's capability curves, relay types, and proposed relay settings for review and inspection by the UPPCL no later than twelve (12) months after the award of the Construction Contract.

(b) UPPCL shall inform ROSA, in writing, within six (6) months after receiving any part of the above information, whether the proposed relay types and relay settings are acceptable. If these are not reasonably acceptable to UPPCL, ROSA agrees to cooperate with all reasonable requests of UPPCL to provide acceptable relay types and relay settings that are compatible with the UPPCL System and consistent with Accepted Industry Practice.

(c) All information referred to in this Section 5.4 shall be submitted in a manner reasonably acceptable to UPPCL.

(d) The generator and excitation data, shall be used for UPPCL's transient stability analysis.

Section 5.5 Fuel

(a) ROSA shall procure and purchase pursuant to the Coal Supply Contract and the Secondary Fuel Contract respectively all Primary Fuel and Secondary Fuel required for the operation of the Station and generation of electric energy.

(b) Nothing in this Agreement shall be construed to limit or prevent ROSA from purchasing additional spot-market Fuel from time to time in consultation with UPPCL.

Section 5.6 Tests

(a) Pursuant to Schedule 6 hereof, ROSA will determine and prepare the test procedures necessary to demonstrate the performance and operational characteristics of the Station. All precautions shall be taken by ROSA to avoid disturbance to the UPPCL System during the Tests to the extent possible and in accordance with Accepted Industry Practices.

(b) ROSA shall give not less than Seven (7) days prior written notice to UPPCL of any Tests to be performed at the Station.

(c) UPPCL may send representatives at the Station during the Tests but the failure of such representatives to attend will not result in the postponement or failure of any such Test.

(d) UPPCL shall accept into the UPPCL System all the electric energy generated during the Tests and shall pay to ROSA the amounts specified under this Agreement with respect to Infirm Power.

(e) ROSA will provide UPPCL a summary of the Test results and other relevant data derived during the Tests as specified in Schedule 6.

(f) UPPCL shall maintain the stability of the frequency, voltage and other electrical properties of the UPPCL System throughout the duration of the Tests so as to allow the Unit to be tested without distortion attributable to conditions prevailing on the UPPCL System. In the event of any instability affecting the voltage, frequency or other electrical properties of the UPPCL System during the Tests which has a materially adverse effect on the ability of a Unit to operate at the Capacity specified in the Construction Contract during the Tests, the results of the Tests shall, to the extent technically feasible, be adjusted to take account of such instability, but otherwise the Tests shall be void and shall be recommenced. In case the Test becomes void due to instability of frequency, voltage and other electric properties of UPPCL System, the cost of re-testing will be borne by UPPCL.

Section 5.7 Entry into Commercial Operation

(a) Each Unit shall go into commercial operation at midnight next following UPPCL's receipt of Performance Test report as specified in Schedule 6 by the designated engineer and the results of the performance tests showing that the Tested Capacity is not less than 95% of its Nameplate Capacity and as declared by ROSA to be capable of commercial operation. Such commencement of commercial operation shall not be more than One Hundred and Eighty (180) days from the Scheduled Synchronization Date or such extension provided due to Force Majeure Events occurring between Synchronization Date and Scheduled Commercial Operation Date.

(b) The results from the Tests will be used to determine the Operating Characteristics of the Station.

(c) As soon as practicable after the Commercial Operation Date, the Operating Characteristics of the Station, if required, shall be revised based on Test results.

Section 5.8 Liquidated Damages due to ROSA Default

(a) Delay in Commissioning – If any Unit shall not achieve Scheduled Commercial Operation Date due to default on part of ROSA, but extended for such reasonable time as shall be required due to any Force Majeure Event, ROSA shall pay to UPPCL liquidated damages for such delay for an amount equal to as given below.

1. For Unit I - Rs.1.65 lakh for each day delay for first 180 days and thereafter Rs.16.68 lakh per delay upto another 180 days subject to a maximum of Rs.33 crore.

2. For Unit II - Rs.1.10 lakh for each day delay for first 180 days and thereafter Rs.11.12 lakh per day delay upto another 180 days, subject to a maximum of Rs.22 crore.

(b) Capacity Shortfall Penalty: To the extent that the Tested Capacity of either Unit is less than the Nameplate Capacity at the end of the relevant Stabilisation Period, the Capital Cost of the Station shall be reduced on a pro rata basis by dividing the difference between the Nameplate Capacity and the Tested Capacity of such Unit by the Nameplate Capacity of the respective Unit. Further for either Unit, a liquidated damages of Rs.7000 per kilowatt of shortfall in Nameplate Capacity will be payable by ROSA if the shortfall in Nameplate Capacity is more than Two percent (2%) of the Nameplate Capacity, at the end of the relevant Stabilisation Period of either Unit.

(c) ROSA shall pay the Capacity shortfall penalty within Twenty one (21) days from the date of the end of the Stabilisation Period.

ARTICLE 6

COMMERCIAL OPERATION AND MAINTENANCE

Section 6.1 Delivery of Capacity

(a) ROSA hereby agrees with UPPCL that, subject to the provisions of this Agreement, it will operate and maintain the Station until the expiry of earlier termination of this Agreement so as to provide to UPPCL (Subject to any provision to the contrary contained in this Agreement) the Capacity capable of being supplied by the Station in accordance with the Operating Characteristics except to the extent:

(i) anticipated by the Maintenance Programme during a period of Scheduled Outage as provided in Section 6.9 hereof;

(ii) that to do so would not be in accordance with Accepted Industry Practice;

(iii) necessary due to circumstances relating to safety (of either Personnel or Station or apparatus);

(iv) that to do so would be unlawful;

(v) provided for in Article 14 hereof;

(vi) necessary due to Forced Outage;

or in any other circumstances that UPPCL so approves.

(b) Subject to the provisions of Section 2.1 (d), Section 11.3 and Articles 16 and 18 and ROSA's internal requirements for electrical energy for its operation of the Station, ROSA shall not grant any other Party other than UPPCL right to the Capacity and Available Energy produced by the Station.

Section 6.2 Despatch Instructions and Delivery of Available Energy

(a) ROSA shall deliver Active Power and Reactive Power to UPPCL at the Interconnection Points in accordance with Dispatch Instructions issued by UPPCL pursuant to Schedule 8 hereto. Notwithstanding anything to the contrary contained in this Agreement ROSA shall not be required to deliver Active Power and/or Reactive Power which is not within the range of the generator electrical characteristics set forth in Schedule 3 hereto.

Section 6.3 Availability Declaration

(a) From the Unit I Commercial Operation Date ROSA shall submit to UPPCL "Capacity Availability Declarations" in accordance with the provisions of Schedule 8 hereto.

Section 6.4 Reduction and Resumption of Deliveries

(a) UPPCL shall advise ROSA in the most expeditious manner, to be confirmed in writing, of any request for reduction or increase in the Station Capacity in the form of a Dispatch Instruction. Any reduction or increase required of ROSA hereunder shall be implemented and completed as soon as possible consistent with Accepted Industry Practice.

(b) No Unit shall be despatched at less than Fifty per cent (50%) of its Established Baseload Capacity unless mutually agreed between UPPCL and ROSA subject to Section(s) 6.5, 6.6 and 6.7.

(c) After a Unit has been off line due to a Scheduled Outage or in response to a Dispatch Instruction from UPPCL to reduce the Net Electrical Output of such Unit then :

(i) if such Unit and its associated boiler have been out of operation for an extended period of time and cooled to ambient temperature, such Unit will be capable of being synchronized within Eight (8) hours and achieve full electrical output within Twelve (12) hours following receipt by ROSA of a Dispatch Instruction from UPPCL to start up; and

(ii) if such Unit has been held in "stand-by" condition or up to Forty Eight (48) hours during which period the generating Unit and the boiler temperatures are maintained at appropriate levels, such Unit will be capable of being synchronized within Four (4) hours and achieve full electrical output within Six (6) hours following receipt by ROSA of a Dispatch Instruction from UPPCL to start-up.

(d) Once a Unit has been synchronized within the UPPCL System, and has achieved full electrical output, its output may be increased or decreased at the rate up to two per cent (2%) of its Established Baseload Capacity per minute.

Note : All the above numbers specified in Section 6.4 (c) and (d), are nominal and may be revised based on manufacturer's recommendations.

(e) It will be UPPCL's obligation to provide Start-up Power on a continuous basis subject to Force Majeure conditions as specified in Article 14. In case ROSA is prevented from re-start of a Unit or both the Units due to lack of start-up power ROSA will be entitled for Deemed Energy.

Section 6.5 Emergency Conditions

(a) If, in the reasonable opinion of UPPCL, the condition or manner of operation of the UPPCL System or the Station poses an immediate threat of injury or material damage to any Person or to the UPPCL System, UPPCL shall be entitled to require ROSA by notice in the most expeditious manner and confirmed in writing to de-energise the Station if it is necessary or expedient to do so to avoid the occurrence of such injury or damage.

(b) If in the reasonable opinion of ROSA, the condition or manner of operation of the UPPCL System or Station poses an immediate threat of injury or material damage to any Person or to the Station, ROSA shall inform UPPCL in the most expeditious manner to be confirmed in writing.

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and be entitled to de-energise the Station if it is necessary or expedient to do so to avoid the occurrence of such injury or damage.

(c) ROSA shall re-energise the Station as quickly as practicable and in co-ordination with UPPCL after the circumstances leading to any de-energisation under this Section 6.5 have ceased to exist.

Section 6.6 Emergency Plans

(a) ROSA will cooperate with UPPCL in establishing from time to time emergency plans, including recovery from a local or widespread electrical blackout voltage and frequency fluctuation in order to effect load curtailment and other similar plans which may be necessary.

(b) ROSA will make available to UPPCL the technical references concerning start-up times and minimum load-carrying capability.

Section 6.7 Delivery during Emergencies

(a) ROSA will during an Emergency Condition supply such power as the Station is able to generate and UPPCL is able to receive consistent with Accepted Industry Practice, ROSA will not be subject to any penalties or damages or be in breach of contract if it fails to generate power in excess of the lower of Nameplate Capacity and Tested Capacity.

(b) If any Scheduled Outage occurs or would occur coincident with an Emergency Condition ROSA will make all good faith efforts to reschedule such Scheduled Outage or if such Scheduled Outage has commenced ROSA will, if so requested by UPPCL, attempt to expedite either the completion or temporary curtailment of the Scheduled Outage in accordance with Accepted Industry Practice.

Section 6.8 Operation and Maintenance of the Station

(a) The Station will be operated and maintained in accordance with the O&M Agreement, if any, is entered into.

(b) Subject to this Agreement, ROSA will operate and maintain the Station in accordance with Accepted Industry Practice and all applicable Laws.

Section 6.9 Scheduled Maintenance

(a) Not later than Seventy (70) days before the beginning of each Tariff Year, ROSA shall submit to UPPCL and the Control Centre its proposed programme of maintenance for the Station for that Tariff Year and the following Four (4) Tariff Years which are to be mutually agreed to within Thirty (30) days in order to enable UPPCL to co-ordinate Scheduled Outages of other generating units, plant and equipment on the UPPCL System. UPPCL will not seek to determine or influence the nature of the maintenance which ROSA will carry out.

(b) Within Thirty (30) days of its receipt of the proposal for the Maintenance Programme pursuant to paragraph (a) above UPPCL shall give written notice to ROSA and the Control Centre either:

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(i) that it is satisfied with such proposed Maintenance Programme in which case such proposed Maintenance Programme shall be the Maintenance Programme for the Tariff Year in question; or

(ii) that it wishes certain adjustments to be made to such Maintenance Programme, provided that:

(1) such adjustments may relate only to the timing and not to the scope or nature of the proposed maintenance;

(2) UPPCL must have reasonable grounds for requesting such adjustments based on the overall operation and maintenance of the UPPCL System; and

(3) no adjustments may be requested if and to the extent that it might result in breach of any Law or result in the Station being operated other than in accordance with Accepted Industry Practice.

(c) Where UPPCL has given notice under Section (b) (ii) above, ROSA shall, after full discussion with UPPCL, promptly revise its proposed Maintenance Programme to take account of the Agreement reached between UPPCL and ROSA. The revised Maintenance Programme shall be delivered to UPPCL as soon as practicable and shall be the Maintenance Programme for the Tariff Year in question.

(d) Subsequent to the establishment of the Maintenance Programme pursuant to Sections (b) and (c) above, UPPCL or ROSA may at any time propose amendments to the Maintenance Programme and shall be obliged to make such a proposal as soon as it becomes aware that such an amendment will be necessary. Such amendments shall be made to the Maintenance Programme only if they are agreed by both UPPCL and ROSA. The Parties shall agree to attempt to make such amendments whenever reasonably practicable. Either Party may seek further adjustments to the Maintenance Programme determined in accordance with this Section 6.9(d) which shall be agreed between the Parties whenever reasonably practicable. The Party which has not requested the amendment shall be entitled to withhold its Agreement to the amendment unless it is fairly compensated for the additional costs reasonably and necessarily required to be incurred by it as a result of agreeing to any such amendment.

(e) Notwithstanding Section 6.9 (d) above, UPPCL shall be entitled to require ROSA to make an amendment to the Maintenance Programme including the postponement of a Scheduled Outage, if and to the extent that UPPCL considers that the amendment is required in order to preserve the safety and security of the UPPCL System as a whole. UPPCL shall hold ROSA harmless against and shall reimburse ROSA for any reasonable additional costs which ROSA may necessarily incur as a result of complying with a requirement of UPPCL under this Section.

(f) ROSA shall not carry out maintenance of the Station which is neither contemplated by the Maintenance Programme nor required by Accepted Industry Practice to be carried out prior to the next Scheduled Outage unless such maintenance has no adverse effect upon Capacity

Notwithstanding anything in this Article, ROSA shall have the right to carry out maintenance or reschedule Maintenance Programme on the Station in the event of a Forced Outage or to prevent an imminent Forced Outage.

(g) ROSA shall not without UPPCL's consent (such consent not to be unreasonably withheld or delayed) declare the Station to be available in excess of the levels anticipated by the Maintenance Programme during any period in which the Station is the subject of a Scheduled Outage.

(h) UPPCL's right under this Section 6.9 may only be exercised reasonably, having due regard to all relevant factors, including the operational and economic interests of ROSA, those of other users of the UPPCL System, and those of UPPCL and the UPPCL System, but consistent with all applicable Laws and Directives and Accepted Industry Practice.

Section 6.10 Modifications to the Station

(a) ROSA may modify the Station with prior approval of UPPCL provided :

(i) the modifications do not contravene Accepted Industry Practice; and

(ii) the modifications do not result in the Station being unable to operate within the UPPCL System and the modification should not be detrimental to the interest of UPPCL

(b) Any benefits accrued in the form of Tariff as a result of the modification to the Station shall be shared between UPPCL and ROSA on mutually agreed terms and the cost of such modifications shall be added to the Capital Cost after approval of UPPCL and the UPERC.

Section 6.11 Operating Records

(a) Each Party shall keep complete and accurate operating records and all other data required by each of them for the purpose of proper administration of this Agreement.

(b) Subject to any Law to the contrary, all such records and data shall be maintained for a period of Five (5) years from the date such records or data were originally made.

(c) ROSA will maintain an accurate and up to date operating log at the Station with records of but without limitation to

(i) Active Power and Reactive Power production for each clock hour;

(ii) Changes in operating status;

(iii) Scheduled Outages and Forced Outages;

(iv) All important events noticed during inspection; and

(v) Frequency and voltage in the UPPCL System and any abnormal conditions on the UPPCL System.

(d) Either Party shall have the right from time to time, upon reasonable prior written notice to the other Party, to examine the said operating records and data of the other Party relating to this Agreement during normal business hours during the period such records and data are required to be maintained.

Section 6.12 Access to Station

(a) Subject to Section 6.12 (b) hereof, ROSA will authorise specified representatives of UPPCL to have access to the Station, upon reasonable prior notice during normal business hours, as may be reasonably necessary for a purpose;

(i) relating to the operation and maintenance of UPPCL System; or

(iii) of reading and maintaining UPPCL Meters.

(b) ROSA may refuse or restrict access to representatives of UPPCL or any other Persons for reasons relating to safety or security and all visitors will comply with any safety regulations imposed by ROSA.

(c) Notwithstanding Article 15 hereof, UPPCL shall indemnify and hold harmless ROSA and its officers, directors, agents and employees from and against and shall reimburse ROSA for any loss, cost, consequential damages and liability, incurred by any such indemnified Party as a result of the exercise of UPPCL's right of access under this Section, unless caused by the action, negligence or willful misconduct of an officer of ROSA or any officer, director, sub-contractor, agent or employee of ROSA.

(d) Notwithstanding anything mentioned above in Section 6.12, the Chairman/Board Member of UPPCL can authorise a UPPCL officer to visit the Station for a special inspection.

Section 6.13 Control of Sub-Station

(a) The 220 KV sub-station will be supplied and installed by ROSA. The 220 KV outgoing lines will be supplied and installed by UPPCL. To facilitate operation over the long term, ROSA will control the 220 KV sub-station.

ARTICLE 7

BASE LOAD CAPACITY

Section 7.1 Baseload

(a) The Parties acknowledge and agree that the Station shall operate as a "Baseload Facility" and no Unit shall be despatched at less than Fifty per cent (50%) of its Established Capacity, unless mutually agreed by UPPCL and ROSA, subject to the terms and conditions of this Agreement and Accepted Industry Practice. In this Section 7.1 "Baseload Facility" means a power generating facility which is intended to be despatched at all times at its declared level of availability. If ROSA is asked to dispatch below 50%, it has option to shut down the plant and deemed generation will be provided as per availability declaration.

Section 7.2 Established Baseload Capacity

(a) After the Stabilisation Period, the Tested Capacity or the Nameplate Capacity of the Unit at the generator terminals whichever is higher shall be taken as the Established Baseload Capacity and shall not be altered during the Term of this Agreement.

ARTICLE 8

METERING

Section 8.1 Installation of Meters

(a) ROSA shall at its cost provide install and maintain one set of dedicated instrument transformers and meters for each Metering Point as detailed below to measure Active Power and Reactive Power delivered to UPPCL by ROSA and Active Power and Reactive Power received by ROSA from UPPCL.

(i) HT Terminals of Generator Transformer(s)

(ii) HT Terminals of Station Transformer(s)

(iii) HV Generator Terminals

(iv) Each outgoing 220 KV Line

Such meters (the "ROSA Meters") shall be connected to a current transformer voltage transformer of accuracy class as per IEC. The ROSA Meters shall be tested in an independent laboratory (agreed by the Parties) and ROSA shall supply to UPPCL a copy of the manufacturer's test certificate.

(b) UPPCL will provide, install and maintain a set of meters identical to the ROSA Meters (the "UPPCL Meters") to take the same measurements at the Metering Points from the instrument transformers and meters referred to in Sub-section 8.1(a) above. The UPPCL Meters shall be connected to a current transformer and voltage transformer of accuracy class as per IEC. UPPCL may require ROSA to accommodate and provide the necessary space for and access to UPPCL Meters as it may require for the purpose of monitoring the Station, system conditions and output. ROSA shall also provide UPPCL access to the UPPCL Meters as UPPCL may reasonably require for the purpose of complying with its obligations under this Agreement in respect of the UPPCL Meters. The UPPCL Meters shall be installed in such a manner that they may be read by ROSA in accordance with this Agreement. The core selected for Instrument Transformers for UPPCL Meters shall be dedicated to these meters and no other load/meter shall be connected to the dedicated core of these Transformers.

(c) Both the ROSA Meters and the UPPCL Meters and associated metering, CT/PT cable etc. shall as to their technical standards, description, accuracy and calibration comply fully with the requirements as specified in Schedule 9.

(d) If the measurement of import and/or export of Active Power and/or Reactive Power can be combined into one instrument then a single meter (trivector meter) is acceptable.

Section 8.2 Inspection and Testing of Meters

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(a) The ROSA Meters shall be the property of ROSA and ROSA shall be responsible for the costs of their maintenance, replacement and calibration. The UPPCL Meters shall be the property of UPPCL and UPPCL shall be responsible for the costs of their maintenance, replacement and calibration.

(b) Each Party shall, at its expense, inspect, calibrate and test the set of meters, monitors and where appropriate, associated circuits which it owns (including those at the ROSA substation) upon their installation and on a scheduled basis thereafter. These should be tested and calibrated atleast once every year. Each set of meters, monitors and where appropriate, associated circuits (including those at the ROSA substation) may also be inspected at any other reasonable time upon the request of the other Party and cost of such inspection shall be borne by the other Party.

(c) If any set of meters, monitoring equipment or associated circuits (including those at the ROSA substation) is found not to comply with the requirements as specified in Schedule 9 they will be repaired or replaced at the expense of the Party which owns them as soon as practicably possible.

(d) All the tests shall be conducted by the authorised staff of both the Parties jointly and the results and corrections so arrived at mutually will be applicable and binding on both the Parties.

Section 8.3 Sealing of Meters

(a) The ROSA Meters and the UPPCL Meters shall be sealed with a seal owned by each of the Parties and shall not be opened, calibrated or tested except in the presence of representatives of both UPPCL and ROSA. Each Party shall ensure (to the extent it is able to do so) that the meters, monitors and, where appropriate, associated circuits which it owns are sealed and kept secure between inspections and tests. If the seals need to be broken for repair or re-calibration the Party wishing to conduct such work may break the seals with the consent of the other Party which shall not be unreasonably withheld or unreasonably delayed.

Section 8.4 Metering of Energy

(a) The electrical energy generated by the Station shall be measured at generator terminals and also at other points mentioned in Section 8.1 (a) subject to Section 8.5 and 8.6 on the basis of meter readings of UPPCL Meter.

Section 8.5 Inaccuracy of Meters

(a) Should any one of the UPPCL Meters fail to register or upon test be found not to be within the accuracy standards as specified in Schedule 9, the billing for the period referred to in paragraph (c) below will be done on the basis of the value registered by the corresponding ROSA Meter.

(b) Should both the UPPCL Meters and the ROSA Meters fail to register or upon test be found not to be within the accuracy standard as established

as specified in Schedule 9, the Measured Energy shall for the period referred to in paragraph (c) below be adjusted and agreed to between UPPCL and ROSA and in the absence of Agreement shall be referred to the Experts.

(c) The period referred to in paragraphs (a) and (b) above is the actual period during which inaccurate measurements were made if such period can be determined or, if not readily determinable, the period between the date on which the error is detected and the date of the previous month's meter reading or the date of the last test of such meter, whichever occurs later. The correction shall be for the full value of the absolute error.

Section 8.6 Meter Reading

(a) Representatives of both UPPCL and ROSA shall conduct joint visual readings of the UPPCL Meters and the ROSA Meters at 10:00 hours on the last day of each Operating Month. The Parties shall prepare joint statements recording the readings of such meters for the relevant Operating Month immediately following the reading of the meters and, if the readings are significantly different from each other and/or demonstrate a level of inaccuracy outside acceptable limits as specified in Schedule 9, the provisions of Section 8.5 shall immediately apply. If the representatives of UPPCL and ROSA are not available at the said hour, the meter(s) shall be read jointly at 10:00 hours on the following day, failing which the meter shall be read by ROSA in the presence of a notary who shall certify the meter readings.

(b) As a safety measure the reading of both UPPCL Meters and ROSA Meters shall be taken daily at a fixed mutually agreed time and same shall be intimated daily by ROSA to UPPCL by phone/fax. UPPCL will compare these readings with the meter installed at the other end of the line and in case of any large deviation, joint inspection/testing will be carried out.

Section 8.7 Records

(a) UPPCL and ROSA shall each compile and maintain meter records and other records needed to reflect the Available Energy and Measured Energy generated and delivered to UPPCL;

(b) Such records will be subject to inspection by the other Party during normal business hours upon reasonable advance written notice.

ARTICLE 9

INTERCONNECTION AND TRANSMISSION

Section 9.1 UPPCL's Obligations

(a) ROSA will provide the data reasonably required by UPPCL to perform an interconnection study within Three (3) months following the Effective Date.

(b) UPPCL shall complete an interconnection study under conditions agreed upon by the Parties within Six (6) months after the receipt of complete data from ROSA pursuant to Section 9.1 (a).

(c) UPPCL shall (except to the extent that any third party acceptable to ROSA assumed the obligation) design, construct, own and maintain, at its expense, the External Interconnection Facilities consistent with Accepted Industry Practice.

(d) UPPCL shall complete construction of the External Interconnection Facilities Ninety (90) days prior to the Scheduled Synchronisation Date for Unit I or any extension thereto due to any Force Majeure Event, in accordance with the Construction Schedule of the Station. But, provision for Start-up Power will be as per Section 9.3(a).

(e) The Parties agree and acknowledge that the Station cannot be synchronised, tested and commissioned unless the External Interconnection Facilities and Internal Interconnection Facilities are completed prior to the Synchronisation Date for Unit I.

Section 9.2 Switchyard and Transmission Lines

(a) ROSA shall design, construct, install, test, commission, own and maintain the 220 KV substation and 220 KV switchyard. The 220 KV Switchyard shall distribute the energy generated to a total of Seven (7) 220 KV Transmission Lines.

(b) UPPCL shall design, construct, install, test, commission, operate, own and maintain at no cost to ROSA, the 220 KV Transmission Line and the other External Interconnection Facilities described in Schedule 5 and the UPPCL System.

(c) Ownership of facilities and the responsibility between ROSA and UPPCL shall be as described in Schedule 5 and in Section 6.13.

(d) ROSA will specify the requirements for protection, control and metering of the Internal Interconnection Facilities and External Interconnection Facilities to protect the Station.

(e) UPPCL and ROSA shall use its reasonable efforts to ensure that power flows into the ROSA substation and/or the Switchyard do not result in metering inaccuracy.

Section 9.3 Start up and Stand by Power

(a) Normal Start-up and reserve stand-by power for the Station shall be provided by the ROSA Station Transformer. UPPCL shall make available Start-up Power One Hundred and Eighty (180) days prior to the Scheduled Synchronisation Date for Unit I or any extension thereto due to any Force Majeure Event in accordance with the Construction Schedule in the Station.

(b) The Parties agree and acknowledge that completion and operation of the transmission lines and the Switchyard as provided in Schedule 5 hereto is essential for the Synchronisation, testing and commissioning of the Station.

Section 9.4 Construction of the External Interconnection Facilities

(a) UPPCL shall provide to ROSA quarterly reports on the status of the construction of External Interconnection Facilities.

(b) If it is determined by ROSA in consultation with UPPCL that any facilities under the External Interconnection Facilities will not be completed and operational at Ninety (90) days prior to the Scheduled Synchronisation Date for Unit I. ROSA shall have the right, but not the obligation, without prejudice to Section 9.5, to construct and install such facilities on behalf of UPPCL. ROSA shall exercise its right Ninety (90) days prior to the scheduled date of completion of the External Interconnection Facilities by UPPCL. In the event, ROSA agrees to assist UPPCL in completing the construction of External Interconnection Facilities, ROSA shall complete the construction of facilities within a period and cost as mutually agreed between ROSA and UPPCL. Ownership of the assets thus created will be with UPPCL.

(c) Where ROSA exercises its rights under this section, UPPCL shall afford all reasonable assistance to ROSA to perform the foregoing and UPPCL shall be deemed to provide all Government Approvals necessary for ROSA to exercise its rights under this Section 9.4.

(d) Where ROSA exercises its rights under this Section 9.4, UPPCL shall notwithstanding Article 15 hereof, be liable for and shall reimburse and indemnify ROSA for all the costs incurred by ROSA arising from the exercise of its rights under this Section 9.4.

(e) ROSA shall submit every fortnight a written claim for payment indicating the Costs incurred by ROSA arising from the exercise of its rights under this Section 9.4.

(f) UPPCL shall pay to ROSA all the amounts specified in any claim for payment within Twenty One (21) days from the time the claim for payment is submitted to UPPCL ROSA shall have the right to revise or issue additional claims for payment under this Section based on additional or other information it may receive regarding the costs incurred by ROSA, within Thirty (30) days after the submission of relevant claim for payment to UPPCL.

Section 9.5 Consequences of delay in installation of External

Interconnection Facilities.

(a) Notwithstanding any other provision in this Agreement, if Unit I Scheduled Commercial Operation Date is delayed due to : (i) the External Interconnection Facilities described in Section 9.2 and 9.4, and Schedule 5 (which are the responsibility of UPPCL) not being completed and operational Ninety (90) days prior to the Scheduled Synchronisation Date of Unit I for any reason not attributable to a default by ROSA or any Force Majeure, or (ii) any other UPPCL default (e.g. non-supply of start-up power), and it is certified by the designated engineer that Unit I is ready for Synchronisation, Unit I shall be deemed commissioned on the Scheduled Commercial Operation Date of Unit I and UPPCL shall, from the Scheduled Date of Commercial Operation of Unit I, pay for first Forty Five (45) days Fixed Charges to ROSA. After the 45th day UPPCL shall pay an amount equivalent to full Fixed Charges plus the incentive for the units generated for plant operation at 85% Plant Load Factor.

(b) UPPCL shall indemnify and hold harmless ROSA from and shall reimburse ROSA for any and all manner of action, demands, suits, contracts, claims, damages and cost of any nature or kind whatsoever, including legal costs, whether in Law or Equity brought by any person(s) against ROSA or involving ROSA arising from failure or delay in completion of any of the External Interconnection Facilities described in Section 9.2 and 9.4 which are the responsibility of UPPCL to provide and install Ninety (90) days prior to the Scheduled Synchronisation Date of Unit I due to UPPCL default.

ARTICLE 10

REPRESENTATIONS, WARRANTIES, COVENANTS

Section 10.1 ROSA Representations and Warranties

(a) ROSA represents and warrants that

(i) ROSA is a corporation duly registered under the Companies Act, organised and validly existing under the Laws of the Republic of India and has all requisite power and authority to conduct its business, to own its properties and to execute and deliver and perform its obligations under this Agreement.

(ii) the execution, delivery and performance by ROSA of this Agreement has been duly authorised by all necessary corporate or partnership action :

(iii) the execution, delivery and performance by ROSA of this Agreement does not :

(1) require further consent or approval of ROSA's Board of Directors or shareholders;

(2) violate any Governmental Approval or any Law;

(3) result in a breach of or a constitute a material default under ROSA's memorandum or any indenture, contract or agreement to which it is a party or by which its property may be bound, or

(4) place ROSA in material default under its memorandum and articles of association, or any indenture, contract or agreement to which it is a party or by which it or its property may be bound;

(iv) this Agreement is a legal, valid and binding obligation of ROSA, enforceable against ROSA in accordance with its terms, except as the enforceability may be created by applicable bankruptcy, insolvency, reorganisation, moratorium or other similar Laws affecting creditors" rights generally and to the extent that the remedies of specific performance, injunctive relief and other forms of equitable relief are subject to equitable defences, the discretion of the court before which any proceedings therefore may be brought, and the principles of equity in general;

(v) there are no pending or to the knowledge of ROSA, threatened legal actions or proceedings involving ROSA before any Court or Administrative Body or Arbitral Tribunal or Arbitrator that might materially and adversely affect:

(1) the financial condition or operation of ROSA; or

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(2) the ability of ROSA to perform its obligations under this Agreement, or

(3) the legality, validity or enforceability of this Agreement.

(vi) the Station will be operated and maintained in accordance with operating procedures developed pursuant to Article 6 hereof, Accepted Industry Practice, and the Station will be operated in such a manner so as not to have a material adverse effect on the UPPCL's voltage level;

(vii) the Station will be capable of delivering during normal operation, electricity to UPPCL in the form of 3 – phase, 3 – wire, Alternating Current of 50 hertz, at a nominal Voltage of 220 KV and at a power factor consistent with the generator electrical characteristics set forth in Schedule 3 hereto;

(viii) the Station will be operated within a frequency range of 47.5 – 51.5 hertz. In the event that the frequency of the UPPCL System is or falls outside the above range ROSA shall isolate the Station from the UPPCL System.

Section 10.2 UPPCL Representation and Warranties

(a) UPPCL hereby represents and warrants that:

(i) UPPCL is a body corporate duly organized and validly existing under the Laws of India and has all requisite legal power and authority to execute this Agreement and carry out the terms, conditions and provisions hereof;

(ii) the execution, delivery and performance by UPPCL of this Agreement have been duly authorised by all necessary action, and UPPCL shall deliver proof and confirmation of such authorisation to ROSA promptly;

(iii) the execution, delivery and performance by UPPCL of this Agreement does not and will not

(1) require any consent or approval of any Governmental Authority or other person or body, other than that which has been already obtained.

(2) violate any material provision of UPPCL's charter or other constitutive documents, any indenture, contract or Agreement to which it is a Party or by which it or its properties may be bound, or any material Law, rule, regulation, order, writ, judgement, injunction, decree, determination or award presently in effect having applicability to UPPCL.

(3) result in a breach of or constitute a material default under any indenture, contract or agreement to which it is a Party or by which it or its property may be bound;

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(iv) UPPCL is not in material default under its charter or other constitutive documents or any indenture, contract or agreement to which it is a party or by which it or its property may be bound;

(v) this Agreement is a legal, valid and binding obligation of UPPCL, enforceable against UPPCL in accordance with its terms, except as the enforceability may be created by applicable bankruptcy, insolvency, reorganisation, moratorium or other similar Laws affecting creditors' rights generally and to the extent that the remedies of specific performance, injunctive relief and other forms of equitable relief are subject to equitable defences, the discretion of the court before which any proceedings therefore may be brought, and the principles of equity in general.

(vi) there is no pending, or to the knowledge of the UPPCL, threatened legal action or proceeding affecting UPPCL before any Court or Administrative Body or Arbitral Tribunal or Arbitrator that might materially and adversely affect:

(1) the financial condition or operations of UPPCL;

(2) the ability of UPPCL to perform its obligations under this Agreement, or

(3) the legality, validity or enforceability of this Agreement, and

(vii) the External Interconnection Facilities will be operated and maintained in accordance with

(1) operating and maintenance standards recommended by the External Interconnection Facilities' equipment suppliers;

(2) operating procedures developed pursuant to Article 6 of this Agreement; and

(3) Accepted Industry Practice.

Section 10.3 Existence

(a) Each Party agrees to preserve and keep in force and effect its organisational existence and all material franchises, licenses and permits necessary for the proper conduct of its business including, with respect to ROSA, the business of constructing, owning and operating the Station.

Section 10.4 Compliance with Laws

(a) Each Party shall, at all times, comply with all material Laws applicable to it or in the event of any non-compliance, shall diligently contest any such Law in good faith if such non-compliance has no material adverse effect on the operation or maintenance of the Station. Each Party shall give all required notices and shall procure and maintain all Government Approvals necessary for its performance of this Agreement

ARTICLE 11

SALE AND PURCHASE OF CAPACITY AND ENERGY

Section 11.1 Capacity and Energy

(a) From and after the Unit I Commercial Operation Date, ROSA agrees to sell and deliver, and UPPCL agrees to purchase the Capacity and Net Electrical Output of each Unit subject to such Dispatch Instructions as may be in effect and the terms and conditions of this Agreement. ROSA shall follow the directions of UPPCL or the Control Centre to back down generation and to resume generation, in each case consistent with the Station's technical limits, Accepted Industry Practice and this Agreement and the other arrangements between ROSA and UPPCL regarding communication and co-ordination of operations (Dispatch Instruction). UPPCL shall not be required to reimburse ROSA for any incremental costs or damages in respect of Dispatch Instructions issued in compliance with the foregoing.

Section 11.2 Sale and Purchase of Infirm Power

(a) ROSA shall set and the UPPCL shall purchase all Infirm Power generated by a generating Unit prior to the Commercial Operation Date of such Unit.

Section 11.3 Sale of Power to Third Parties

(a) In case of termination of this Agreement pursuant to Section 16.3 (d), ROSA will be allowed to sell any capacity and / or power generated by the Station to third parties after intimating UPPCL, in accordance with the laws applicable at the time of such termination.

(b) In case of UPPCL default, ROSA will, without prejudice to UPPCL's obligation under this Agreement, be allowed to sell any capacity and / or power generated by the Station to third parties for so long as the Event of Default is continuing unremedied. From the proceeds of such sale, the surplus amount received over Variable Charges shall be adjusted against the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties as provided below.

In case the surplus amount over Variable Charges is higher than the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties, such excess amount shall be retained by the ROSA. In case the surplus amount over Variable Charges is lower than the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties, such shortfall amount shall be payable by the UPPCL.

(c) If UPPCL, for any reason whatsoever, is unable to or elects not to / does not off take any capacity and / or power generated / to be generated by the Station, ROSA shall be free to sell the unutilized capacity and / or power to any other party under intimation to UPPCL.

From the proceeds of such sale, the surplus amount received over Variable Charges shall be adjusted against the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties as provided below.

In case the surplus amount over Variable Charges is higher than the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties, such excess amount shall be retained by the ROSA. In case the surplus amount over Variable Charges is lower than the Fixed Charge liability of the UPPCL in respect of the quantum of such capacity and / or power sold by ROSA to third parties, such shortfall amount shall be payable by the UPPCL."

UPPCL shall provide wheeling facilities on non discriminatory basis for such sale of power pursuant to Sections 11.3 (a), 11.3(b) and 11.3 (c) and ROSA will pay wheeling charges for the same as stipulated by the UPERC.

ARTICLE 12

TARIFF, BILLING & PAYMENT, CHANGE IN LAW

Section 12.1 Two-Part Tariff

(a) UPPCL shall pay to ROSA the Tariff for each Tariff Year as set out in this Article. Tariff will be determined on a two-part basis comprising Fixed Charge and Variable Charge and shall be computed for each Tariff Year.

Section 12.2 Fixed Charge

(a) The Fixed Charge shall mean with respect to any Tariff Year during the Term of the Agreement the aggregate of the following for such year;

(i) Interest on Debt : at actuals as per the financial package approved by the UPERC;

(ii) Interest on Working Capital;

(iii) Depreciation; as per GOI guidelines (Schedule 7);

(iv) O & M Expenses;

(v) Taxes on Income (not including any tax/penalties, if any, imposed by reasons of ROSA default);

(vi) Return on Equity.

Not later than Ninety (90) days prior to the Unit I Commercial Operation Date, ROSA shall deliver to UPPCL a calculation of its estimate of the Fixed Charge (except Taxes on Income) for the Operating Months from the Unit I Commercial Operation Date till Unit II Commercial Operation Date ("Initial Tariff Period").

Not later than Thirty (30) days prior to the Unit II Commercial Operation Date, ROSA shall deliver to UPPCL a calculation of the estimated Fixed Charge for First Tariff Year and thereafter not later than Thirty (30) days prior to the commencement of each Tariff Year of the Term, ROSA shall deliver to UPPCL a calculation of the Fixed Charge (based on its best estimates) of the ensuing Tariff Year.

In estimating the various elements of the Fixed Charge, ROSA will calculate such estimate in the currency in which such element (or any part thereof) is denominated. Foreign currency amounts will be converted into Rupees at the Current Rate of Exchange as on the date of the said estimate.

The Fixed Charge (excluding Taxes on Income and any other Taxes) shall be payable every month as one twelfth (1/12) of the estimated amount for the Tariff Year If the Initial Tariff Period or any Tariff Year is less than Twelve (12) months the amount of the Fixed Charge payable shall be reduced on a pro-rata basis.

(b) Interest on Debt shall be computed on all outstanding loans, as included in the schedule of Debt Repayment, as per the Financing Document approved by the UPERC on the basis of actual rate of interest as specified in Schedule 10.

(c) Working Capital shall be the aggregate of the following :

i) Cost of Primary Fuel for two months consumption corresponding to Achievable Plant Load Factor that is a Plant Load Factor of 80%;

ii) Cost of Secondary Fuel for two months corresponding to Achievable Plant Load Factor that is a Plant Load Factor of 80%;

iii) O & M Expenses for One Month;

iv) Maintenance spares @ 1% of the Capital Cost escalated @ 6% per annum from the date of commercial operation; and

v) Receivables equivalent to two months of fixed and variable charges for sale of electricity calculated corresponding to Achievable Plant Load Factor that is a Plant Load Factor of 80%.

Rate of interest on Working Capital shall be on normative basis and shall be equal to the short term Prime Lending Rate of State Bank of India as on 1st April of the year in which ROSA is declared to be in commercial operation. Interest on working capital shall be payable on normative basis notwithstanding that ROSA has not taken working capital loan from any outside agency."

(d) **Depreciation**

For the purpose of tariff, Depreciation shall be computed in the following manner, namely:

i) The value base for the purpose of depreciation shall be the historical cost of the asset;

ii) Depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed in Schedule 7.

The residual life of the asset shall be considered as 10% and depreciation shall be allowed upto maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset.

iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

Advance Against Depreciation (AAD)

In addition to allowable Depreciation, ROSA shall be entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Debt Repayment amount subject to a ceiling of 1/10th of Debt minus Depreciation.

Provided that Advance Against Depreciation shall be permitted only if the cumulative Debt Repayment upto a particular year exceeds the cumulative Depreciation up to that year;

Provided further that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative Debt Repayment and cumulative Depreciation up to that year."

(e) O & M Expenses

O & M Expenses shall be computed based on the appropriate guidelines of the appropriate electricity regulatory commission as applicable in the relevant Tariff Year.

(f) The recovery of Fixed Charge will be allowed so long as the Adjusted Plant Load Factor is not less than the Achievable Plant Load Factor calculated at the end of each Tariff Year. If the Adjusted Plant Load Factor for the Station for any Tariff Year is lower than the Achievable Plant Load Factor for such Tariff Year, the actual amount payable to ROSA by UPPCL for such Tariff Year on account of Fixed Charge shall be reduced on pro-rata basis.

Explanation : Achievable Plant Load Factor shall be subject to UPPCL Force Majeure and Political Force Majeure.

(g) The Tariff determined as above does not include any duties, taxes, cesses or other levies demanded by and legally payable to GOI or GOUP or UPPCL or any other statutory authorities in India on the generation and/or sale of energy, and if levied and legally payable shall be payable by UPPCL to ROSA additionally along with the monthly Tariff bills.

Section 12.3 Variable Charge

(a) Variable Charge shall mean the cost of Primary Fuel and the cost of Secondary Fuel.

(b) The Cost of Primary Fuel (CPF) shall mean, for any Operating Month, the cost of Primary Fuel, calculated in accordance with the following formula :

$$CPF = \frac{[FC*kWh*(HR-FR*OCV)]}{GCV}+MTP$$

Where:

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(i) FC is the estimated average Unit cost of the Primary Fuel fired at the Station including the cost of procurement of Fuel under Coal Supply Contract and procurement of Fuel on spot purchase / short-term contract basis from domestic / international suppliers from time to time in consultation with UPPCL and expressed in Rs. per kg. The cost in Rs. per kg. shall include all costs of the Primary Fuel whether fixed or variable including any purchase costs, transportation charges, taxes, royalties, cost of handling and processing of the Primary Fuel. The computation of energy charges shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal dispatched by the coal supply company during the month at the rate of 0.8%. Notwithstanding anything to the contrary contained in this Agreement, the impact of the cost of 'Wagon Investment Scheme' shall be included as part of the cost of Primary Fuel, if it becomes necessary for executing legally enforceable Agreements with Indian Railways and Primary Fuel Supplier respectively, and for running the Station efficiently.

(ii) KWh is the Measured Energy metered at the Interconnection Point during such Operating Month in Kilowatt hours.

(iii) HR is the station heat rate at the Interconnection Point and shall be 2747 kcal/kWh based on normative gross station heat rate of 2500 kcal/kWh and normative Auxiliary Consumption of 9.0%.

(iv) The normative Auxiliary Consumption for the purpose of tariff shall be 9.0%.

(v) FR is the normative Secondary Fuel consumption rate at the Interconnection Point and shall be 2.20 ml/kWh based on normative secondary fuel consumption 2 ml/kWh and normative Auxiliary Consumption of 9.0%.

(vi) OCV is the average gross calorific value of the Secondary Fuel fired at the Station expressed as Kcal/ml.

(vii) GCV is the average gross calorific value of the Primary Fuel fired at the Station during the Operating Months expressed as Kcal/kg.

(viii) MTP is the amount payable by ROSA by way of minimum take payments in respect of Primary Fuel and Secondary Fuel limited to the quantities required to achieve generation at Achievable Plant Load Factor (80%) in case of UPPCL Force Majeure, Political Force Majeure, UPPCL default and Despatch Instructions.

(c) Cost of Secondary Fuel" (CSF) shall mean for any Operating Month the cost of Secondary Fuel calculated in accordance with the following formula:

CSF = KWH*FR*FO

Where :

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(i) KWh is the Measured Energy metered at the Interconnection Point during such Operating Month in Kilowatt hours.

(ii) FR is the normative Secondary Fuel consumption rate at the Interconnection Point and shall be 2.20 ml/kWh based on normative secondary fuel consumption 2 ml/kWh and normative Auxiliary Consumption of 9.0%.

(iii) FO is the estimated average unit cost of the Secondary Fuel fired at the Station expressed in Rs. per ml.

Section 12.4 Incentive Charge

(a) For the Initial Tariff Period, the First Tariff Period and each subsequent Tariff Year of the Term UPPCL shall pay Incentive Charge at a flat rate of 25.0 paise / kwh for ex-bus energy generated in excess of ex-bus energy corresponding to Achievable Plant Load Factor.

Section 12.5 Records

(a) For the purposes of this Agreement, the assets, liabilities, Equity, revenue and expenses of ROSA shall be recorded and maintained in the accounts of ROSA in Foreign Currency and Rupees respectively based on the original source of the funds. For example, any portion of Capital Cost acquired from investment sources outside of India shall be denominated in Dollars and any Depreciation relating thereto shall be denominated in Dollars and any portion of Capital Cost acquired from investment sources within India shall be denominated in Rupees and any Depreciation relating thereto shall be denominated in Rupees. Likewise, Equity shall be recorded in the currency in which it was sourced.

(b) Either Party shall have the right, upon reasonable prior written notice to the other Party, to examine and/or make copies of the records and data of the other Party relating to this Agreement (including without limitation, all records and data relating to or sustaining any payments made by or to ROSA) at any time during normal business hours during the period such records and data are required to be maintained. All such records and data shall be maintained for a maximum of Five (5) years after the creation of such record or data and for any additional time period required under Law or by regulatory agencies having jurisdiction over the Parties.

Section 12.6 Payment for Infirm Power

(a) From the Synchronisation Date of each Unit to its Commercial Operation Date, UPPCL shall purchase all the Infirm Power generated by the Station. UPPCL shall pay to ROSA monthly payment of the Variable Charge for all Infirm Power purchased by UPPCL. Any payment agreed between the Parties and made by UPPCL other than the Variable Charge for the Infirm Power shall go towards reducing the Capital Cost of the Station.

Section 12.7 Payment after Unit I Commercial Operation Date and Prior to Unit II Commercial Operation Date

(a) For the period commencing on the Unit I Commercial Operation Date upto the Unit II Commercial Operation Date, UPPCL shall pay to ROSA:

(i) the Fixed Charge,
(ii) the Variable Charge, and
(iii) the Incentive Charge

calculated based on the assumption that Fifty per cent (50%) of the Capital Cost of the Station is attributable to Unit I.

Section 12.8 Payment after Unit II Commercial Operation Date

(a) From the Unit II Commercial Operation Date and through out the Term, all as herein provided, UPPCL shall pay to ROSA, with respect to each Tariff Year of the Term the Fixed Charge, the Variable Charge and the Incentive Charge for the Station.

Section 12.9 Payment of Fixed Charge and Variable Charge

(a) The Tariff shall be payable from the Unit I Commercial Operation Date, ROSA shall prepare and render to UPPCL within Five (5) days after the end of each Operating Month a statement detailing the UPPCL Meter Readings and ROSA's calculation of Fixed Charge, Variable Charge, Incentive Charge and any other amounts payable by UPPCL, pursuant to this Agreement. If, for any reason, UPPCL is unavailable to read UPPCL Meters on the last day of the Operating Month as provided in Section 8.6, ROSA and the notary as contemplated by Section 8.6 shall be entitled to read UPPCL Meters and the notary shall certify the reading for the purpose of enabling ROSA to prepare a statement of payment due to ROSA such Operating Month. If ROSA Meters are used for billing for any Operating Month, UPPCL and ROSA shall as soon as is practicable thereafter jointly read the UPPCL Meters at the Metering Points and make an equitable adjustment, if necessary, in the statement prepared by ROSA based on the ROSA Meters.

Section 12.10 Annual Adjustment for Fixed Charge / Variable Charge

(a) Not later than Sixty (60) days after the end of each Tariff Year, ROSA shall deliver to UPPCL a statement of the calculation of the amount, if any, which UPPCL owes to ROSA or ROSA owes to UPPCL. This statement shall inter-alia include the following information with respect to such Tariff Year.

(i) the annual Available Energy of the Station;
(ii) the Measured Energy,
(iii) the Fixed Charge,
(iv) the Variable Charge,
(v) the Incentive Charge,
(vi) Achievable Plant Load Factor and the Adjusted Plant Load Factor.

With full particulars, assumption and calculations in respect thereof.

(b) To the extent that the actual amounts of any element constituting the Fixed Charge, Variable Charge and the Incentive Charge which are

incurred during any Tariff Year in accordance with this Agreement are different from the forecast amount estimated in accordance with Section 12.2. ROSA shall credit to UPPCL or UPPCL shall pay, as the case may be, an amount equal to the difference resulting therefrom. ROSA will submit supplemental bills to UPPCL for any such amounts payable to it or by it not later than Sixty (60) days from the end the Tariff Year.

Section 12.11 Claims for Income Tax

(a) The Parties agree that the Taxes on Income liability of ROSA will be billed by ROSA and paid by UPPCL. ROSA will present to UPPCL a supplemental bill for Taxes on Income by the third week of the month proceeding the Operating Month when the Taxes on Income payment is due. UPPCL shall pay ROSA invoice within Seven (7) days of receipt of the supplemental bill for Taxes on Income via a Letter of Credit or Bank Draft / Certified Cheque.

(b) Any under-recoveries or over-recoveries of tax on income shall be adjusted every year on the basis of income-tax assessment under the Income-Tax Act, 1961, as certified by the statutory auditors.

(c) Provided that tax on any income stream other than the core business shall not constitute a pass through component in tariff and tax on such other income shall be payable by ROSA.

(d) Provided further that the benefits of tax-holiday as applicable in accordance with the provisions of the Income-Tax Act, 1961 shall be passed on to UPPCL.

(e) The Parties agree that the Taxes on Income liability of ROSA payable by UPPCL shall not exceed the value of Taxes on Income calculated using the values and figures for calculating Tariff as specified in sections 12.2, 12.3 and 12.4. Further, the Taxes on Income shall be recovered directly by ROSA from UPPCL and not as a component of Fixed Charges for the purpose of computation of Fixed Charge recoverable from UPPCL under the provisions of Section 12.2 (f).

Section 12.12 Dollar Equivalency and Adjustment for variation in Exchange Rate

(a) Extra Rupee liability towards interest payment and loan repayment corresponding to the normative Foreign Debt or actual Foreign Debt, as the case may be, in the relevant year shall be permissible provided it directly arises out of Foreign Exchange Rate Variation and is not attributable to Rosa or its suppliers or contractors. Rosa shall recover Foreign Exchange Rate Variation on a year to year basis as income or expense in the period in which it arises and Foreign Exchange Rate Variation shall be adjusted on a year to year basis.

As soon as practical, ROSA shall submit to UPPCL (I) in the event such difference is a positive number, a supplemental bill for an amount equal to such difference or (ii) in the event that such difference is negative, a statement setting forth the amount of such difference. The amount of any supplemental bill submitted in accordance with (i) of the preceding sentence shall be paid by UPPCL within Thirty (30) days of receipt of the

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supplemental bill by UPPCL and the amount of any statement described in (ii) of the preceding sentence shall be reflected as credit in the Tariff bill for the next Operating Month of ROSA to UPPCL."

NOTE:
ROSA will make all reasonable efforts in consultation with UPPCL to reduce the impact of foreign exchange fluctuation throughout the Term of this Agreement including use of suitable existing (e.g., hedging, at UPPCL's cost) or future instrumentalities towards this end. If at a future date, maintaining Dollar account is allowed for Indian companies, ROSA will convert Rupees into Dollars on the dates of payment by UPPCL and disburse interest on foreign debt foreign debt repayment and 14% Return on Foreign Equity from such account.

Section 12.13 Payment of Incentive Charge

(a) Incentive Charge as specified in Section 12.4 shall be payable monthly. ROSA shall compute the amounts due from UPPCL pursuant to Section 12.4 in each of the Operating Month in any Tariff Year once the Station achieves Plant Load Factor of Eighty per cent (80%). The obligation to pay Incentive Charge will be supported by a Letter of Credit.

Section 12.14 Billing Disputes

(a) If either Party disputes the accuracy of a bill for any amount specified in this Article 12, the Parties shall use their best efforts to resolve the dispute in accordance with Article 17.

(b) In case of any dispute in the bill amount the undisputed amount will be paid by UPPCL as per the agreed payment schedule. If the dispute is not resolved within five (5) working days of the receipt of the monthly bill, then the disputed amount shall be deposited in an Escrow Account. The dispute will be resolved by a Committee comprising the Chairman, UPPCL, the designated Director, ROSA and the Chairman UPERC (in the chair) within 25 days. The disputed amount shall be paid to ROSA on the 30th day irrespective of the decision and subsequently shall be adjusted in accordance with the decision of the committee.

(c) Upon the resolution of the disputed amount in favour of UPPCL, such shall be due and payable to UPPCL with interest thereon, calculated at Default Rate, from the date on which such amount was paid by UPPCL to ROSA till the date of payment of amount due to UPPCL.

(d) The existence of the dispute as to any bill shall not relieve either Party from compliance with other provisions of this Agreement.

Section 12.15 Escrow Account and Letter of Credit

(a) On or before the Scheduled Synchronisation Date of Unit I and at all times thereafter, UPPCL shall cause to effect an irrevocable revolving Letter of Credit that is :

(i) issued in favour of ROSA by a Scheduled Bank mutually agreed upon;

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(ii) revolving to continue during the Term of this Agreement,

(iii) valid for atleast One (1) year and has a face value of one month's billing amount based on Eighty Five Per cent (85%) Plant Load Factor for first three Operating Months following Unit I Commercial Operation Date and thereafter average monthly billing for last Three (3) Operating Months. The Letter of Credit shall be reinstated within Five (5) days of drawdown;

(iv) charges for opening and operating the Letter of Credit shall be borne by UPPCL.

(b) ROSA shall present the monthly Tariff bill and any Supplemental bill (in each case denominated in Rupees) for payment under Letter of Credit mechanism. Letter of Credit shall be payable upon the execution and presentation of the following documents :

(i) A certificate by an authorised officer of ROSA stating that the amounts specified in the certificate are due and payable by UPPCL to ROSA under this Agreement and supported by a meter reading statement accepted and signed by both ROSA and UPPCL or a certification by ROSA that UPPCL failed to sign the meter reading statement as per Section 8.6 (a).

(ii) Monthly energy consumption bill in a mutually acceptable format (to be agreed before the Date of Financial Closing) indicating details of Tariff.

(iii) Certificate from ROSA that the bill has been prepared/ drawn strictly in conformity with the accepted Tariff and that all admissible rebates/discounts have been allowed.

(c) On or before the Scheduled Synchronisation Date of Unit I, UPPCL shall establish an Escrow Account ("Escrow Account") at a Scheduled Bank mutually agreed by UPPCL and ROSA. UPPCL shall at all relevant times maintain funds in the Escrow Account equivalent to 1.25 times monthly Tariff amount based on Eighty Five per cent (85%) Plant Load Factor for the purposes of guaranteeing the reinstatement of the Letter of Credit on a monthly basis under this Agreement as and when same becomes due and payable hereunder. If the Parties cannot agree on the Scheduled Bank, the matter shall be resolved pursuant to Article 17 hereof. In case of a default by UPPCL, in payment of any of the bills due to ROSA on the due date, ROSA shall have recourse to the Escrow Account. ROSA may, by written notice to the said bank, request the bank not to honour any of the cheques, hundies and requisitions presented to it by UPPCL, until after the claim of ROSA is first discharged out of the revenues accumulated in the Escrow Account. As soon as the said bill is paid by the bank from the Escrow Account or by UPPCL directly, the said notice shall cease to be in effect.

(d) In the case of payment default by UPPCL under the Escrow Account Mechanism, ROSA shall have recourse to the GOUP Guarantee after Thirty (30) days of default from the Due Date of Payment. GOUP shall make payment within Thirty (30) days of receipt of letter stating UPPCL

payment default from ROSA. In case of termination payment, the decision shall be taken by GOUP within 30 days of receipt of letter from ROSA and the payment shall be made. Any delayed payment will attract interest at Default Rate.

(e) Right to cease generation – The title for the Station on termination will pass to UPPCL only after full payment is made. ROSA does not have any obligation to run or allow running of the Station till the payment is made by the UPPCL, but will continue to receive all monthly tariff payments including Deemed Generation.

Section 12.16 Direct Payment

(a) Notwithstanding the fact that a Letter of Credit has been opened, UPPCL has a right to make direct payment of any bill, issued by ROSA to UPPCL by cheque or otherwise and when such direct payment is made, ROSA shall not present the same bill to the Scheduled Bank against the Letter of Credit.

Section 12.17 Rebates, Late Charges

(a) For payment of bills of Fixed Charges and Variable Charges through a Letter of Credit on presentation, a rebate of 2% shall be allowed. If the payments are made by a mode other than through the Letter of Credit, but within a period of one month of presentation of bills by ROSA, the rebate of 1 % shall be allowed.

(b) In case the payment of bills of Fixed Charges and Variable Charges by UPPCL is delayed beyond a period of 1 month from the date of billing, a late payment surcharge at the rate of 1.25% per month shall be levied by ROSA on the outstanding amount of the bills and payable by UPPCL

Section 12.18 Definition of Law

(a) For the purpose of this Agreement, "Law" means any act, rule, regulation, notification, directive order or instruction having the force of Law enacted or issued by any Competent Legislature, Government or Statutory Authority of India, Court or Tribunal.

Section 12.19 Definition of Change in Law

(a) For the purpose of this Agreement, "Change in Law" means :

(i) any enactment and enforcement of any new Law;

(ii) any amendment, alteration, modification or repeal of any existing Law by a competent court, tribunal or legislature in India or,

(iii) any authoritative interpretation of an existing Law issued by a Competent Court, Tribunal, Government or Statutory Authority contrary to the existing official interpretation thereof.

in each case coming into effect after the Effective Date and directly or indirectly affecting the Parties to this Agreement in their performance of

their obligations under this Agreement and provision for which has not been made elsewhere in the Agreement.

Section 12.20 Delays due to Change in Law

(a) In the event any Change in Law coming into force prior to the Scheduled Commercial Operation Date of any Unit causes any delay in Commercial Operation of the Unit, the Scheduled Commercial Operation Date of that Unit shall be extended by a reasonable time as mutually agreed between UPPCL and ROSA in accordance with Section 14.5

Section 12.21 Additional Expenditure

(a) The amount of any additional expenditure incurred by ROSA with regard to the Station, which is reasonably necessary to comply with any Change in Law coming into force prior to Unit II Commercial Operation Date shall be added to the Capital Cost subject to comments by UPPCL/GOUP and approval of the UPERC. To the extent the amount of any such expenditure shall have been funded with Debt, Interest on Debt and Debt Repayment attributable thereto shall be reflected in the Tariff and to the extent the amount of any such expenditure shall have been funded with Equity the Return on Equity attributable thereto shall be reflected in the Tariff.

Section 12.22 Additional Facilities and Modifications

(a) Where any Change in Law coming into force after the Unit II Commercial Operation Date requires the construction of any additional facilities or modifications of any existing facility of the Station, ROSA may incur such expenditure thereon as may be reasonably required to comply with such Change in Law and the amount of such expenditure shall be added to the Capital Cost subject to comments by UPPCL/GOUP and approval of the UPERC. ROSA shall provide UPPCL with as much prior notification of such additions or modifications and their costs as is reasonably practicable. To the extent the amount of any such expenditure shall have been funded with Debt, the Interest on Debt and Debt Repayment attributable thereto shall be reflected in the Tariff, and to the extent the amount of any such expenditure shall have been funded with Equity, the Return on Equity attributable thereto shall be reflected in the Tariff, benefits, if any, in the Tariff, accrued due to Change in Law shall go towards a reduction in the Tariff.

Section 12.23 Other Increased Costs

(a) To the extent that ROSA incurs any other increase in costs, including operating and other Variable Costs, which are reasonably necessary to comply with any Change in Law and which are not covered by the escalation in the Tariff elsewhere provided in this Agreement, the amount of such costs, as approved by the UPERC, shall be paid by UPPCL to ROSA.

Section 12.24 General

(a) The plan of remedial measures to mitigate the effect of Change in Law including how and by whom the costs of mitigation are to be funded, shall

be as may be mutually agreed upon and ROSA will be under no obligation to incur any additional expenditure to mitigate the effect of Change in Law unless and until such an agreement is reached. If no such agreement is reached within Three (3) months from the date of Change in Law, then for the purpose of Section 14.1(b)(v), it is agreed that adequate and reasonable time will not have been provided to make additional investment and accordingly that the Change in Law will (with effect from the date it affects ROSA) constitute a Political Force Majeure Event.

ARTICLE 13
INSURANCE

Section 13.1 Adequate Coverage

(a) During the Construction Period of any Unit and thereafter for the entire Term of the Agreement, ROSA will take out, provide and maintain, or cause to be effected all such insurance coverage as may be required by the Financing Parties pursuant to the Financing Documents and such other insurance as may be available at reasonable rates of commercial premiums as ROSA shall think appropriate in the circumstances, as more specifically set forth in Schedule (all insurance premiums during the Construction Period shall be included as part of the Capital Cost). Such insurance to include without limitation:

(i) Builders All Risk Insurance;

(ii) Comprehensive third Party Liability;

(iii) Workers' Compensation, Employees Group, Health and Medical etc;

(iv) Other such insurance coverage as may be required by the Financing Parties; and

(v) Such other insurance coverage as may be required by Law.

For greater clarify, if for a particular Station Force Majeure condition or group of such conditions, insurance cover is available but at unreasonable terms then ROSA shall inform UPPCL the position and UPPCL will have the right to tell ROSA to take out such insurance, the entire costs of which shall be added to the Project Cost if it is for the Construction Period, and shall be reimbursed separately if it is for during commercial operation subsequent to Construction Period:-

(b) Not later than Four (4) Months before the Scheduled Commercial Operation Date for each Unit, ROSA will seek to obtain quotations for insurance of the Station from such reliable and reputable insurers, as adequately covering such risks and in such amounts as ROSA shall in its discretion think fit, covering such risks and in such amounts as ROSA shall in its discretion determine, provided such insurance coverage shall be in such form, shall be in the amount and shall provide the coverage required by:

(i) the Financing Documents; and

(ii) the Law

(c) Not later than Two (2) months prior to the expiry of any of the insurance from time to time in force in respect of any parts of the Station that have attained the Commercial Operation Date, ROSA will seek to obtain quotations for insurance of the Station from such reliable and reputable

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insurers, as ROSA shall in its discretion think fit, covering such risks and in such amounts as ROSA shall in its discretion determine, provided such insurance coverage shall be in such form, shall be in the amount and shall provide the coverage required by :

(i) the Financing Documents; and

(ii) the Law

(d) ROSA will provide to UPPCL, for information, a list of the proposed insurance policies and coverage intended for the Station within a reasonable time after obtaining the quotations for insurance of the Station.

Section 13.2 Certificates

(a) No later than Thirty (30) days following the first day of each Tariff Year or as soon as practicable after receipt of such certificates or confirmations from the insurers, ROSA will furnish to UPPCL copies of certificates evidencing proof of insurance coverage to this Section.

(b) The certificates of proof of insurance coverage shall indicate, without limitation;

(i) the nature and extent of any risks covered;

(ii) the amount of coverage;

(iii) the level of deductible;

(iv) any significant exclusions from coverage;

(v) the name(s) of the insurers; and

(vi) the amount of the premiums.

(c) ROSA will not cancel, fail to renew or change the terms of any of the insurance described in this Section 13.2 without Ten (10) days prior notice to UPPCL.

Section 13.3 Application of Proceeds

(a) All insurance claims shall be made payable to ROSA, who may, subject to its obligations under the Financing Documents and other agreements, apply the proceeds of such claims to offset the Capital Cost increase to which the insurance coverage is related ROSA will make adequate insurance coverage consistent with ROSA's obligation under the Financing Documents and the Law. ROSA will fully bear the escalation in cost of insurance coverage, if any, over and above that addressed in Section 12.2 (e) with the passage of time, during the Term of this Agreement.

Section 13.4 Failure to Insure

(a) A failure by ROSA to obtain the insurance coverage or certificates of insurance as required by this Article shall neither relieve ROSA of the insurance requirements set forth herein nor relieve or limit in any way ROSA's obligations and liabilities under any other provision of this Agreement.

Section 13.5 Assistance

(a) UPPCL will use reasonable efforts to assist ROSA to obtain any insurance required to be placed in any insurance market outside India if so requested by ROSA.

ARTICLE 14

FORCE MAJEURE

Section 14.1 Force Majeure Events

A "Force Majeure Event" shall mean any event or circumstance or a combination of events or circumstances, which are beyond the reasonable control, either directly or indirectly, of a Party claiming Force Majeure, occurring on or after the Date of Financial Closing, that Materially and adversely affects the performance by such affected Party of its obligation under or pursuant to this Agreement, provided however, that such material and adverse effect could not have been prevented, bypassed, overcome, or remedied by the affected Party through the exercise of due diligence and reasonable care or its compliance with Accepted Industry Practice. It is clarified that Materially in relation to Force Majeure shall mean the inability of the Station to operate at a high enough Plant Load Factor to meet its full Fixed Charge obligations. Force Majeure Events shall include, without limitation, the following events and circumstances, but only to the extent they satisfy the above requirements.

(a) Station Force Majeure: events and circumstances of the following types (Station related Force Majeure), except to the extent they constitute or are caused by events and circumstances of Political Force Majeure;

(i) any material effect of the natural elements including lightening, drought, fire, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or storms;

(ii) explosion, accident, breakage or breakdown of facilities, plant or equipment, structural collapse, failure of or defects in major forging or casting or other items or major equipment which require long lead time to obtain either a replacement or repair, or chemical contamination (other than resulting from an act of war), in each case not attributable to failure to follow Accepted Industry Practice;

(iii) geological or ground conditions that were not reasonably foreseeable, as a result of which construction is delayed or no longer financially or technically reasonably viable;

(iv) air crash, shipwreck, train wreck or failure or delay of transportation that were not reasonably foreseeable;

(v) strikes, work to rule actions, go slows or similar labour difficulties occurring outside of India (excluding such events which are Site specific and attributable to ROSA);

(vi) damage or loss caused by meteorities or objects falling from the sky including aircraft and other flying devices or vehicles including the effects caused by the pressure waves of aircraft or objects travelling at supersonic speeds;

(vii) riots, acts of terrorists, civil commotion, religious strike, communal violence or sabotage.

(viii) diseases, epidemics, plagues or quarantines specific to the Station or the station colony.

(ix) any unavailability of equipment, facilities or materials that was not reasonably foreseeable, and

(x) any event or circumstances of a nature analogous to any of the foregoing.

Explanation :

A Force Majeure Event shall include the effects or consequences of any event or circumstances, or a combination of events or circumstances, which materially or adversely affects the performance of ROSA's obligations under this Agreement. Any Force Majeure Event described in the foregoing clauses of this Section 14.1(a) affecting the performance of any person that is Party to any Station Contract shall also constitute Station Force Majeure.

(b) Political force Majeure : Political events or circumstances of the following types (Political Force Majeure) which involve India and/or the State of Uttar Pradesh;

(i) acts of war (whether declared or undeclared, actual or threatened), invasion, armed conflict, blockade, embargo, explosion, sanction, revolution, riot, communal or religious violence, sabotage, kidnapping or acts of terrorism;

(ii) actual or threat of chemical or radioactive contamination or ionising radiation resulting from acts of war at or near the Site not attributable to ROSA;

(iii) widespread diseases, epidemics, plagues or quarantines;

(iv) riots, acts of terrorists, civil, commotion, religious strike, communal violence or sabotage not attributable to ROSA;

(v) Change in Law which requires additional capital investment but does not provide for adequate and reasonable time to make the investments (only for such reasonable excess period which is required to make that investment).

(vi) expropriation, requisition confiscation, nationalisation export or import restrictions, requirements, action or omissions to act on the part of any Governmental Authority. GOI and/or GOUP preventing or impairing performance of this Agreement or any other Station Contract provided such adverse action or inaction did not result from ROSA's or any of its Contractors non compliance with any applicable Law;

(vii) strikes, work-to-rule actions, go-slow or similar labour difficulties occurring inside India (excluding such events which are site specific and attributable to ROSA or UPPCL);

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(viii) inability despite due diligence to obtain, renew or maintain required licenses, permits or Governmental Approvals, provided such adverse action or inaction did not result from ROSA's or any of its Contractors non-compliance with any applicable Law;

(ix) the failure of any Governmental Authority, whose failure to perform under their obligations to ROSA shall result in the Station's operations being affected Materially, provided such adverse action or inaction did not result from ROSA's or any of its Contractors non-compliance with any applicable Law. However, fuel supply risk shall not be attributable to UPPCL. Non-availability of water arising from any act or omission of any Governmental Authority will constitute Political Force Majeure;

(x) any event or circumstance or a combination of the same of a nature analogous to any of the foregoing beyond the reasonable control of the Parties and affecting the performance of their obligations hereunder.

(c) UPPCL Force Majeure : events or circumstances of the following types which affects the External Interconnection Facilities and prevents UPPCL from evacuating power produced by the Station, except to the extent they constitute or are caused by events and circumstances of Political Force Majeure;

(i) any material effect of the natural elements including lightening, drought, fire, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado or storms;

(ii) any material effect of diseases, epidemics, plagues or quarantines;

(iii) explosion, accident, breakage or breakdown of facilities structural collapse failure of or defects in major forging or casting or other items or major equipment which require long lead time to obtain either a replacement or repair, or chemical contamination (other than resulting from an act of war), in each case not attributable to failure to follow Accepted Industry Practice.

(iv) any unavailability of equipment, facilities or materials that was not reasonably foreseeable.

(v) air crash, shipwreck, train wreck or failure or delay of transportation that were not reasonably foreseeable; and

(vi) any event or circumstance of a nature analogous to any of the foregoing.

Explanation:

UPPCL shall not be entitled to claim Force Majeure based upon an interruption of services due to action taken by itself or by any other Governmental Authority.

Section 14.2 Notification Obligations

(a) Where a Party affected by any of the events described in Section 14.1 claims relief under this Agreement (the "affected Party"), the rights and obligations of both Parties shall be suspended for the duration of the Force Majeure Event subject to Section 14.3 and 14.5 hereof and subject as otherwise provided in this Agreement, provided that:

(i) the affected Party gives the other Party written notice indicating its intention to claim relief under this Article and describing the particulars of the Force Majeure Event as soon as reasonably practicable, after its occurrence but not later than Five (5) days after the date on which such Party knew or should reasonably have known of the commencement of the Force Majeure Event. Notwithstanding the above if the Force Majeure Event results in a breakdown of communications rendering it not reasonably practicable to give notice within the applicable time limit specified herein, then the Party claiming Force Majeure shall give such notice as soon as reasonably practicable after the reinstatement of communications, but not later than Seven (7) days after such reinstatement.

(ii) the affected Party uses its reasonable efforts to remedy its inability to perform;

(iii) the affected Party prepares and provides weekly reports to the other Party indicating its progress in remedying the effects of the Force Majeure Event, and

(iv) the Force Majeure Event was not caused by the Affected Party's negligent or intentional acts, errors or omissions, or by its negligent failure to comply with, any material Law, rule, regulation, order or ordinance, or any material breach or default under this Agreement.

(b) The suspension of performance shall not be greater in scope or longer in duration than that reasonably necessary due to the Force Majeure Event.

(c) The Affected Party shall provide the other Party with written notice when it is able to resume performance of its obligations under this Agreement.

(d) Nothing in this Article, shall :

(i) excuse the obligations of a Party that are required to be completely performed prior to the occurrence of a Force Majeure Event; or

(ii) excuse the obligations of a Party to make payment under this Agreement.

Section 14.3 Parties Obligations in case of a Force Majeure Event

(a) Neither Party shall be obliged to take any steps or actions that would, in the opinion of that Party, render its performance of this Agreement uneconomical, including, settlement of a labour dispute, or entering into Station Contracts. Neither Party shall be obliged to reinstate any part of the Station damaged by a Force Majeure Events, except on mutually agreed terms.

(b) Wherever the affected Party's performance of any or all of its obligations under this Agreement has been rendered uneconomical due to a Force Majeure Event, the Parties shall seek to negotiate in good faith and develop and implement a plan of remedial and reasonable alternative measures to render the performance of the affected Party's obligations economical.

(c) Where the Affected Party's performance of any or all of its obligations under this Agreement is deemed to be uneconomical by reason of a Force Majeure Event, the provisions of Article 18 under this Agreement shall, without prejudice to that Party's other obligations under this Agreement, apply.

(d) In addition to the obligations of UPPCL to pay to ROSA all moneys which were payable and/or which accrued due prior to the commencement of the Force Majeure Event, UPPCL shall pay to ROSA during and/or with respect to the period of the duration of the Force Majeure Event the amount set forth in Section 14.5 hereof.

Section 14.4 Uneconomic Performance

(a) ROSA's performance of any or all of its obligations under this Agreement shall be deemed to be uneconomical by reason of a Force Majeure Event if the Remedying Cost exceeds the Additional Income that could be earned by ROSA, after remedying the effects of the Force Majeure Event.

(b) UPPCL's performance of any or all of its obligation under this Agreement shall be deemed to be uneconomical by reason of a Force Majeure Event if the Remedying Cost exceeds economic benefits.

(c) In this section, "Remedying Cost" means the net economic costs expected to be incurred by ROSA or UPPCL (as the case may be) after setting off the proceeds of any insurance claims received or reasonably expected to be received by ROSA or UPPCL (as the case may be) arising from the loss, damage or expense suffered by the Station or External Interconnection Facilities as a result of such Force Majeure Event.

"Additional Income" means the present value of incremental income (net of tax) that ROSA could reasonably expect to earn by remedying the adverse effects of such Force Majeure Event on the Station. It will be calculated from the date the Station is expected to overcome the adverse effects of such Force Majeure until expiry of the Term of this Agreement. It will be calculated in accordance with Generally Accepted Accountancy Principles.

(d) Any dispute on account of a claim of uneconomic performance by either Party shall be resolved in pursuance of Article 17.

Section 14.5 Consequences of Force Majeure Event

Notwithstanding anything contained in this Agreement:

(a) If any Force Majeure Event occurs prior to the Commercial Operation Date of any Unit, then the Scheduled Commercial Operation Date of that

Unit shall be extended for a reasonable period of time relative to the duration and impact of such Force Majeure Event.

(b) In the case of a Station Force Majeure Event, after Unit I Commercial Operation Date, UPPCL shall pay ROSA the Fixed Charge at Eighty per cent (80.00%) Plant Load Factor, for a period of not more than Forty Five (45) days. UPPCL shall be fully reimbursed for the above payment with interest from the insurance proceeds, within Twenty One (21) days following Forty-fifth (45th) day of the Station Force Majeure. The interest shall be payable by ROSA at the Working Capital Interest Rate and shall be payable for the number of days for which Fixed Charge is paid by UPPCL and for a period of Twenty One (21) days from the Forty-fifth (45th) day of the Station Force Majeure. In case the payment is made by ROSA prior to Twenty-first (21st) day after Forty-fifth (45th) day of the Station Force Majeure, interest payment shall be reduced on a pro-rata basis. In case of non-payment of the due amount by ROSA within Twenty One (21) days from the Forty-fifth (45th) day of the Station Force Majeure, the Default Rate of Interest shall be payable by ROSA for a period from the Twenty-first (21st) day till the actual date of payment by ROSA. If the insurance proceeds are not sufficient, then ROSA will pay the balance to UPPCL.

(c) During any Force Majeure Event, if ROSA operates the Station at part load, UPPCL shall pay ROSA the Variable Charge, if any.

(d) Following Unit I Commercial Operation Date, UPPCL shall pay to ROSA during the duration of any Political Force Majeure and UPPCL Force Majeure, Fixed Charge calculated on the basis that the Unit or Station shall be deemed during such period to be operating at Eighty per cent (80.00%) Plant Load Factor from the time of such Force Majeure Event. If any Political or UPPCL Force Majeure Event occurs prior to the Unit I Commercial Operation Date and the Financing Parties are not willing to reschedule Debt Repayments, UPPCL shall pay to ROSA the amount of Debt Repayment as it falls due as per the financing Documents. Any amount paid under this section in respect of Debt Repayment will be treated in accordance with Section 12.2(d).

(e) For greater certainty, it is understood that periods of outage due to a Station Force Majeure Event, shall not be treated as deemed generation for the purpose of calculating Adjusted Plant Load Factor. Periods of outage due to Political and UPPCL Force Majeure Events shall be deducted from the total period of operation in that Tariff Year for the purpose of calculating Adjusted Plant Load Factor. During the period of a Political Force Majeure Event, or UPPCL Force Majeure Event, UPPCL shall pay the Fixed Charge at Eighty percent (80.00%) Plant Load Factor.

(f) The amount of additional capital expenditure incurred by ROSA with regard to the Station due to a Political Force Majeure Event shall be added to the Capital Cost, subject to UPERC Approval and net of any insurance proceeds received by ROSA. No increase in Capital Cost shall be allowed with regard to any expenditure incurred by ROSA on the Station due to any Station Force Majeure Events, if it is insurable. For such Station Force Majeure Event which cannot be insured the increase in Capital Cost shall be payable by ROSA if it is attributable to them. In case the Station Force Majeure is found to be un-insurable and not

attributable to ROSA the increase in Capital Cost will be as per the approval of the UPERC, provided the project remains commercially viable after the increase.

ARTICLE 15

LIABILITY AND INDEMNITY

Section 15.1 Limitation on Liability

(a) Except as expressly provided in this Agreement, neither ROSA nor UPPCL nor their respective officers, directors, agents, employees or Affiliates (or their officers, directors, agents or employees), shall be liable or responsible to the other Party or its Affiliates, officers, directors, agents employees, successors or assigns (or their respective insurers) for incidental, indirect or consequential damages, connected with or resulting from performance or non-performance of this Agreement, or anything done in connection herewith, including claims in the nature of lost revenues, income or profits (other than payments expressly required and properly due under this Agreement), any increased expense of, reduction in or loss of power generation production or equipment used therefor, irrespective of whether such claims are based upon breach of warranty, tort (including negligence, whether of UPPCL, ROSA or others), strict liability, contract, breach of statutory duty, operation of Law or otherwise. UPPCL shall have no recourse against any officer, director or shareholder of ROSA or any Affiliate of ROSA or any of its officers, directors or shareholders. ROSA shall have no recourse against any officer of UPPCL, or any affiliate of UPPCL or any of its officers.

(b) Notwithstanding this Article, a Party shall be liable to the other Party for any additional costs, Expenses or loss suffered, arising directly from a willful default of the Party's obligations under this Agreement.

(c) For the purposes of this Article, 'Willful default' shall mean:

(i) An intentional or reckless breach or disregard by a Party of its obligations under this Agreement;

(ii) a failure to take reasonable action to remedy a breach resulting from an error of judgement or mistake arising in good faith; or

(iii) a failure to remedy a breach resulting from an action in accordance with Accepted Industry Practice.

Section 15.2 ROSA Indemnity

(a) ROSA agrees to defend, indemnify and save harmless UPPCL, its officers, directors, agents, employees and affiliates from and against any and all actions, claims, costs, demand, damages, expenses (including reasonable legal fees), judgements, liabilities, losses, proceedings and suits by any Person that are caused by or sustained on facilities owned or controlled by ROSA, unless caused by the action, negligence, or the willful misconduct of an officer of UPPCL, or any officer, director, subcontractor, agent or employee of UPPCL.

(b) Any claims under this Section shall be made in writing within a reasonable period of time from the time of alleged conduct giving rise to

the claim, or within such shorter period as may be prescribed by any limitation statute applicable at the Site and/or the Station.

Section 15.3 UPPCL Indemnity

(a) UPPCL agrees and shall defend, indemnify and save harmless ROSA, its officers, directors, agents, employees and Affiliates (their respective officers, directors, agents and employees) from and against any and all actions, claims, costs, demands, damages, expenses (including reasonable legal fees), judgements, liabilities, losses, proceedings and suits by any Person that are caused by or sustained on facilities owned or controlled by UPPCL, unless caused by the action, negligence, or the willful misconduct of an officer of ROSA, or any officer, director, subcontractor, agent or employee of ROSA.

(b) Any claim under this Section shall be made in writing within a reasonable period of time from the time of alleged conduct giving rise to the claim, or within such shorter period as may be prescribed by any limitation statute applicable at the Site and/or the Station..

Section 15.4 Notice of Proceedings

(a) Where a Party receives a claim from a third party in respect of which it is entitled to be indemnified under Sections 15.2 or 15.3, it shall promptly notify the other Party of such claims.

(b) Neither Party shall settle or compromise any claim, action suit or proceeding in respect of which it is entitled to be indemnified by the other Party without the prior written consent of that Party, such consent shall not be unreasonably withheld or delayed.

Section 15.5 Conduct of Proceedings

(a) A Party (the original Party) shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by the third party alleging or asserting against it arising out of any matter in respect of which it is entitled to be indemnified by the other Party (the "Indemnifying Party").

(b) The reasonable costs incurred by the original Party to contest, defend and litigate any claim, action, suit or proceeding by any third party shall also be covered by the indemnity from the Indemnifying Party.

(c) The Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding at it expense provided it gives prompt notice of its intention to do so to the original Party contesting or defending the suit or proceeding by the third party.

(d) The Indemnifying Party shall reimburse the original Party for all reasonable costs previously incurred by it prior to the assumption of such defence by the Indemnifying Party.

Section 15.6 Representation

(a) The original Party shall have the right to employ its own counsel and such counsel may participate in such claim, action, suit or proceeding, but the fees and expenses of such counsel shall be at the expense of such original Party, when and as incurred, unless;

(i) the employment of counsel by such original Party has been authorised in writing by the Indemnifying Party;

(ii) the original Party shall have reasonably concluded that there may be conflict of interest between the Indemnifying Party and the original Party in the conduct of the defence of such action;

(iii) the Indemnifying Party shall not in fact have employed independent counsel, reasonably satisfactory to the original Party, to assume the defence of such action and shall have been so notified by the original Party; or

(iv) the original Party shall have reasonably concluded and specifically notified the Indemnifying Party either that there may be a specific defence available to it which are different from or additional to those available to the Indemnifying Party or that such claim, action, suit or proceeding involves or could have a materially adverse effect upon it beyond the scope of this Agreement.

Section 15.7 Survival on Termination

(a) The provisions of this Article shall survive the termination or expiry of this Agreement

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ARTICLE 16

DEFAULT AND REMEDIES

Section 16.1 Events of Default

The occurrence of any one of the following shall constitute an Event of Default

(a) Default by ROSA: ROSA will be in default of its obligations under this Agreement where;

(i) ROSA fails to perform any of its major obligations under this Agreement;

(ii) ROSA commits a material breach of this Agreement;

(iii) ROSA directly or indirectly repudiates this Agreement;

(iv) ROSA fails to commence Construction within 180 Days after the Date of Financial Closing (as such period may be extended for any delay caused by an event of Force Majeure;

(v) ROSA abandons the construction after the commencement of construction without written consent of UPPCL;

(vi) ROSA fails to enter into Commercial Operation within Twelve (12) months of the Scheduled Commercial Operation Date for reasons other than Force Majeure Events or delay caused by an UPPCL Event of Default. The Twelve (12) months period may be further extended by mutual agreement of the Parties;

(vii) The dissolution, pursuant to Law, of ROSA except for the purpose of merger, consolidation, liquidation, reconstitution or reorganisation that does not affect the ability of the resulting entity to perform its obligations under this Agreement and provided that such resulting entity expressly assumes such obligations;

(viii) ROSA fails to make payments for amounts due under this Agreement to UPPCL within Thirty (30) days after the date following receipt of notice by UPPCL of such non-payment;

(ix) Should the Station's monthly average Daily Declared Capacity less Capacity mis-declaration (if any in that month), in each of 12 consecutive Operating Months, (starting with the first month after the Stabilisation Period for Unit II) fall below Fifty percent (50%) then ROSA will be in default. Periods of Force Majeure and Scheduled Maintenance shall be excluded from such calculation;.

(x) The tampering by ROSA or its Contractors, employees or agents with the External Interconnection Facilities or the Metering System without prior written consent of UPPCL, except in situations where such actions are taken to prevent immediate injury, death or property damage, provided that in respect of the External

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Interconnection Facilities, such tampering must have been deliberate and has resulted in material damage to the External Interconnection Facilities.

(xi) The failure of ROSA to procure or maintain all material insurance required pursuant to Article 13.

(xii) Any assignment or transfer by ROSA in breach of Article 21.

(b) Default by UPPCL: UPPCL shall be in default of its obligations under this Agreement where;

(i) UPPCL fails to perform any of its major obligations under this Agreement;

(ii) UPPCL commits material breach of this Agreement;

(iii) UPPCL directly or indirectly repudiates this Agreement;

(iv) UPPCL fails to make payments for monthly Tariff bills due under this Agreement to ROSA within Thirty (30) days after the due date, following the receipt of written notice by ROSA of such non-payment;

(v) UPPCL shall be deemed to be in default of its obligations under this Agreement where GOUP fails to perform any of this major obligations under GOUP Guarantee and Implementation Agreement;

(vi) If there is any direct or indirect dissolution of UPPCL, or the transfer of property, assets or undertaking or any material part thereof, by one or a series of transactions, to any other person, unless;

(1) such dissolution is for the purpose of amalgamation, reorganisation or reconstruction;

(2) the resulting entity, person or successor-in-title unconditionally assumes the obligations of UPPCL under this Agreement. Station Contracts and any other contracts to which UPPCL is a party and which affect the Station and/or ROSA.

(3) This Agreement the GOUP Guarantee and Implementation Agreement, the Letter of Credit and Escrow Account remain in full force and effect and enforceable against all the Parties to such agreements including the resulting entity, person, or successor-in-title to UPPCL.

(4) ROSA has received an opinion, acceptable to it from the legal counsel to the resulting entity, person, or successor-in-title to UPPCL relating to the enforceability of this Agreement against that resulting entity, person or successor-in-title, and such other matters as ROSA may reasonably request in connection with the Station;

(5) ROSA has received an opinion, acceptable to it from the legal counsel to GOUP relating to the enforceability of GOUP Guarantee and Implementation Agreement, the Coal Supply Contract, the Transportation contract, the Secondary Fuel Contract and any other contracts relating to the Station with GOUP and any respective departments or agencies thereof and such other matters as ROSA may reasonably request in connection with the Station;

(6) The resulting entity, person or successor-in-title has the technical capability and operating experience sufficient to continue the performance of its obligations under this Agreement; and

(7) The resulting entity, person, or successor-in-title has the financial standing to perform its obligations under this Agreement and a credit worthiness at least equal to that of UPPCL at the execution date of this Agreement.

Section 16.2 Rights Preserved

(a) The duties and obligations imposed by this Agreement and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by Law;

(b) No action or failure to act by any Party shall constitute a waiver of any right or duty afforded to any of them under this Agreement, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Section 16.3 Remedies for Defaults

(a) If the Event of Default is capable of rectification and the Party fails to cure the default within One Hundred and Eighty (180) days (and incase of payment default Thirty (30) days) of the receipt of notice of default from the other Party and such extended periods of time as mutually agreed upon between the Parties but not exceeding One Hundred and Eighty (180) days (except in case of payment default), the Party claiming remedy shall have the right to specific performance of this Agreement and/or terminate this Agreement by giving written notice ("Intended Termination Notice") to the defaulting Party of such default and non-defaulting Party's intention to terminate this Agreement;

(b) The "Intended Termination Notice" by the non-defaulting Party shall be effective no earlier than One Hundred Eighty (180) days following the date of delivery of such notice to the defaulting Party.

(c) Where an Event of Default is cured or remedied prior to the end of the One Hundred Eighty (180) days period or thirty (30) days in case of payment default following the date of delivery of such notice to the defaulting Party, then this Agreement shall not be terminated.

(d) Where an Event of Default is not cured or remedied prior to the end of the One Hundred Eighty (180) days period (or in case of payment default Thirty (30) days period) following the date of delivery of the "Intended Termination Notice" to the defaulting Party, then this Agreement shall be terminated upon the expiry of the One Hundred Eighty (180) days notice period (or in case of payment default Thirty (30) days period), by the issuing of a "Termination Notice" by the non-defaulting Party;

(e) Upon termination of this Agreement, the non-defaulting Party shall be excused and relieved of all obligations and liabilities under this Agreement, except for payment of amounts due before the Effective Date of such termination.

(f) Upon termination of this Agreement, the non-defaulting Party, subject to the terms of this Agreement, may exercise any rights or remedies it has at Law or in Equity including any rights under Section 11.3 and / or under Article 18.

Section 16.4 Specific remedies

(a) Except as expressly provided in this Agreement, if ROSA fails to generate and operate at the Achievable Plant Load Factor, then ROSA shall have no liability other than the pro-rata reduction in the Fixed Charge pursuant to section 12.2 that may be caused by such failure to generate.

ARTICLE 17

CHOICE OF LAW AND DISPUTE RESOLUTION

Section 17.1 Governing Law

(a) This Agreement shall be governed by and construed in accordance with the Laws of the State of Uttar Pradesh, India in effect as of Effective Date and where applicable, the Laws of the Republic of India, in effect as of Effective Date, subject to such concessions as shall be provided to ROSA by GOI and/or GOUP. However, for Section 17.3, the Law of the Republic of India as of the Effective Date shall be applicable.

Section 17.2 Informal Dispute Resolution

(a) The Parties agree to attempt to resolve all disputes arising under this Agreement promptly, equitably, in good faith and using their best endeavours. To this end, the Parties agree to provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate discussions between them, their representatives or senior officer.

(b) Each of ROSA and UPPCL shall designate, in writing from time to time, to the other Party representatives (hereinafter called the Parties "Experts") and a senior officer who shall unless otherwise expressly provided in this Agreement, be authorised in an equitable manner to exercise the authority of the Parties and to make decisions by mutual agreement. The full undisputed amount by either Party shall be paid in accordance with the terms of this Agreement.

(c) Unless the Parties otherwise expressly agree, as a preliminary step to the commencement of arbitration pursuant to Section 17.3 of this Agreement, any dispute arising out of or in connection with this Agreement shall be referred, by either Party, to the parties "Experts", who shall commence discussions to resolve the dispute within Five (5) days of notification, in writing, of dispute.

(d) If the "Experts" are unable to resolve the dispute under this Agreement within Fifteen (15) days of the commencement of discussions, such dispute shall be referred by such representatives, respectively, to a senior officer designated by ROSA and a senior officer designated by UPPCL who shall commence discussions within Five (5) days of notification of a dispute.

(e) Notification of a dispute to senior officers designated by the Parties shall be in writing and shall state the circumstances and material facts giving rise to the dispute, the article or the articles of this Agreement in dispute and the remedy sought.

(f) If the senior officers of the Parties are unable to resolve a dispute referred to them within Fifteen (15) days of the commencement of discussions either Party may refer the dispute to arbitration pursuant to Section 17.3 of this Agreement.

(g) Each Party may appoint substitute or replacement Experts or senior officers from time to time and shall notify the other Party of the name, address and relevant qualifications of the substitute or replacement "Experts" or senior officers within Thirty (30) days of their appointment.

(h) The "Experts" and senior officers appointed to resolve disputes under this Section shall meet as and when necessary. They shall use their best endeavours to meet in person, all discussion shall end up in a memorandum duly signed by both the Parties and/or their "Experts" and the same shall be binding on both the Parties.

(i) Each Party shall bear the costs and Expenses of the "Experts" or senior officers appointed by it.

Section 17.3 Arbitration

(a) In the event any dispute cannot be resolved between the Parties pursuant to Section 17.2, then any dispute arising out of or in connection with this Agreement, including any question regarding its existence, validity or termination or any question as to whether a matter is arbitrable, shall be referred to and governed by Arbitration & Conciliation Act, 1996.

(b) The arbitration shall be conducted in New Delhi, India. The arbitration shall be conducted in English and all written documents used during the arbitration shall be in English. The award shall be speaking award.

(c) The arbitral tribunal shall be composed of Three (3) arbitrators, appointed as follows :

(i) Each Party shall appoint an arbitrator, and the Two (2) arbitrators so appointed shall appoint a third arbitrator who shall act as Umpire of the tribunal;

(ii) If either Party fails to appoint an arbitrator within Thirty (30) days of receiving notice of the appointment of an arbitrator by the other Party, such arbitrator shall at the request of that Party, be appointed by such authority as to be decided in section 17.3(a).

(iii) If the Two (2) arbitrators to be appointed by the Parties fail to agree upon a third arbitrator within Thirty (30) days of the appointment of the second arbitrator, the third arbitrator shall be appointed by such authority as decided in Section 17.3 (a) at the written request of either Party.

(d) The Parties agree that any decision or award of an arbitral tribunal pursuant to this Section 17.3 shall be a domestic award and final, conclusive and binding upon the Parties and any Person affected by it. The Parties also agree that any arbitration award rendered pursuant to this Section 17.3 may be enforced by any court of competent jurisdiction.

(e) During any period of arbitration, there shall be no suspension of this Agreement.

(f) The Parties specifically agree that any arbitration shall be pursuant to Section 17.3(a).

(g) This Section 17.3 is governed by Indian Law.

Section 17.4 Disputed Amount of Monthly Bills

If a dispute as to whether an amount is due arises and this Section 17.4 applies to that dispute, it will be referred to a Committee comprising the Chairman, UPPCL, the designated Director, ROSA and the Chairman UPERC (in the chair) within 5 days of the relevant invoice date. The disputed amount will be released from the Escrow Account into which it was placed pursuant to Section 12.14 and applied in accordance with the Committee's decision. If no ruling is given within 25 days the disputed amount will be paid to ROSA on the 30th day and Section 12.14 will apply once the dispute is finally resolved.

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ARTICLE 18

TERMINATION AND BUY OUT

Section 18.1 Triggering Events for Termination

(a) ROSA shall have the right to require UPPCL to purchase the Station and upon ROSA exercising the same, UPPCL shall purchase the Station from ROSA at any time during the Term of this Agreement in the event of the following.

(i) a Political Force Majeure Event or UPPCL Force Majeure Event as described in Section 14.1 which occurs and continues for One Hundred and Eighty (180) days, unless UPPCL is taking such steps as are appropriate and reasonably available to it to remedy the effect of the UPPCL Force Majeure or Political Force Majeure as in Section 14.1(b) and 14.1(c) subsisting for 360 days;

(ii) an event of UPPCL default as described in Section 16.1 (b).

(b) UPPCL shall have the right to require ROSA to sell the Station and upon UPPCL exercising the same, UPPCL shall purchase the Station from ROSA any time during the Term of this Agreement in the event of the following:

(i) a Station Force Majeure Event as described in Section 14.1 which occurs and continues for One Hundred and Eighty (180) days, unless ROSA is taking such steps as are appropriate and reasonably available to it to remedy the effect of the Station Force Majeure Event as per Section 14.1(a) subsisting for 360 days;

(ii) an event of ROSA default in accordance with Article 16.1(a)

Section 18.2 Termination Procedure

(a) Where either Party exercises its right to require the other to purchase/sell the Station it will provide an "Intended Termination Notice" to the other in accordance with Article 16.3 and 19.

(b) Following the issuance of the "Intended Termination Notice", the Parties shall meet and consult for a mutually agreed period, not exceeding Six (6) months (the "Suspension Period") for the purpose of mitigating the consequences of the events and circumstances giving rise to the "Intended Termination Notice".

(c) Where the Parties resolve all matters giving rise to the issuance of the "Intended Termination Notice" to their mutual satisfaction during the "Suspension Period" the relevant Party will revoke the "Intended Termination Notice".

(d) Revocation of the 'Intended Termination Notice' shall not prejudice the rights of the relevant Party under this Agreement in respect of any such future events or circumstances.

(e) On expiry of the 'Suspension Period', if the Parties are unable to resolve all matters giving rise to the issuance of the 'Intended Termination Notice' the relevant Party will issue a 'Termination Notice'.

Section 18.3 Operation of the Station

(a) ROSA shall have the right but not the obligation, to operate the Station following issuance of the 'Intended Termination Notice" under this Agreement.

(b) Where ROSA exercises its right to continue to operate the Station, both Parties shall continue to perform their obligations under this Agreement.

Section 18.4 Compensation

(a) The Buy-out price shall be the sum of any or all of the following, depending upon various events as described in Section 18.1;

(i) Outstanding Debt – would include the outstanding Debt balance including the Working Capital facility, if any, plus accrued Interest on Debt, plus any amounts in respect of break costs (including swap break costs) or pre-payment penalties by ROSA to its Financing Parties;

(ii) Equity – Shall mean the Equity amount that was approved by UPPCL/GOUP and the UPERC at the Date of Financial Closing or as subsequently approved by UPPCL/GOUP and the UPERC;

(iii) Net Present Value of future Return on Equity – Shall mean the net present value of Return on Equity which is calculated at 14% for the period from the year of termination till the end of the Term of the Agreement. The discount rate for calculating Net Present Value shall be the SBI prime lending rate at the time of Buy-out, but not less than 10% and more than 14%;

(iv) Additional Termination Payment would include any statutory taxes, and duties payable in respect of the transfer of assets to UPPCL following Termination.

(b) Buy Out Price in case of the following termination events shall be as follows:

Station Force Majeure	Outstanding Debt + Additional Termination Payments + 40% of Equity
Political Force Majeure & UPPCL Force Majeure	Outstanding Debt + Additional Termination Payments + Equity + 40% of Net Present Value of future Return On Equity
UPPCL Default	Outstanding Debt + Additional Termination Payments + Equity + 80%

	Of Net Present Value of future Return On Equity
ROSA Default	Outstanding Debt + Additional Termination Payments

Section 18.5 Transfer

(a) Following the issue of a "Termination Notice", under Section 18.2(a), wherein ROSA has exercised its right to sell the Station under Section 18.1(a) or wherein UPPCL has exercised its right to buy the Station under Section 18.1(b), UPPCL shall pay the Buy-out Price to ROSA within thirty (30) days of the receipt of the "Termination Notice" by the defaulting party, failing which ROSA shall be free to take such action regarding the Station and related assets as it deems fit. On the date the payment is made by UPPCL, i.e. the "Transfer Date", ROSA will deliver or make available to UPPCL such conveyance, transfer assignments and novation and other such documents reasonably required by UPPCL to vest in UPPCL the full benefits of the assets of the Station excluding the cash in hand and/or in Bank Accounts, trade and book debts or receivables accruing to ROSA prior to the transfer date as well as proceeds of any insurance or warranty claims made prior to the Transfer Date.

For greater clarity:

(i) UPPCL shall only purchase the assets of the Company required to operate the project including land, plant and equipment, coal and oil stockpiles, spare parts, records, drawings and all other consumables. No warranties as to the condition of the property and assets of the Project shall be given except that ROSA agrees to assign to UPPCL the benefit of any warranties from third Parties existing on the Transfer Date;

(ii) UPPCL shall not purchase any cash in hand and/or in bank accounts, trade and book Debt's or receivables accruing to the Company prior to the Transfer Date unless due consideration for these can be mutually determined by the Parties;

(iii) all other assets existing at the Transfer Date that are not included in clauses (I) and (ii) above shall be for the benefit of the Company including the proceeds of any insurance or warranty claims made prior to the Transfer Date;

(iv) the Company shall be responsible for all liabilities and obligations of the Company that have accrued prior to the Transfer Date. No Debt or other liability relating to the Project and incurred before the date of the Termination Notice will be assumed by UPPCL unless it chooses to and can reach Agreement of the same with the Company and, if necessary, the Financing Parties (where such Agreement is necessary in order to give legal effect to the assumption thereof by UPPCL) (subject to clause (v) below). Due allowance shall be made in computing the Buy-out Price to take account of liabilities assumed by UPPCL and liabilities retained by the Company;

(v) the Company shall, if so required by UPPCL, use reasonable efforts to procure the novation (for failing that, assignment of the underlying rights held by the Company) to UPPCL of any Project Contracts on such terms as UPPCL may reasonably require.

(b) On the "Transfer Date" the Station and all other equipment transferred pursuant to this Article 18 shall be transferred on an "as is" basis and any warranties, either expressed or implied by statute or otherwise, including warranties as to title, merchantability and/or fitness for any particular purpose, the absence of patent or inherent defects, description or otherwise of whatsoever nature, shall be excluded.

(c) On the "Transfer Date", ROSA shall transfer all its rights, title and interest in the Station, free and clear of all liens, charges and encumbrances to UPPCL and this Agreement shall terminate.

(d) After the "Transfer Date", ROSA shall be under no liability whatsoever to UPPCL in respect of the operation or otherwise of the Station by UPPCL or UPPCL's designee, and UPPCL shall indemnify and hold harmless ROSA against any liability to any person or entity arising from the use or operation of the Station after such transfer.

Section 18.6 Survival of Provisions

(a) The provisions of this Article 18 shall survive the cancellation, expiration or termination of this Agreement.

ARTICLE 19

NOTICES

Section 19.1 Notices

(a) All notices and other communication provided for and required under this Agreement including without limitation any modification of or waivers or consents under this Agreement, shall

(i) be given or made in writing, and

(ii) telexed, tele-copied, sent by facsimile, mailed or delivered to the attention of the person indicated below.

If to ROSA :
Attention The Director
Rosa Power Supply Company Limited
4th Floor, Trade Tower,
94, Mahatma Gandhi Marg,
Lucknow–226 001, Uttar Pradesh, INDIA
Fax No. 0522-3031005
Tel.No. 0522-3031062

If to UPPCL:
Attention The Chairman
Uttar Pradesh Power Corporation Limited
Shakti Bhawan,
14, Ashok Marg
Lucknow-226 001, Uttar Pradesh, INDIA

Fax No. 0522-2287827
Tel No. 0522-2287785

(b) Each Party may designate such other address for Notices and/or the designated person for receipt of such notices. A Party changing its Address for Notices and/or the designated person shall give prompt notice of such change to the other Party.

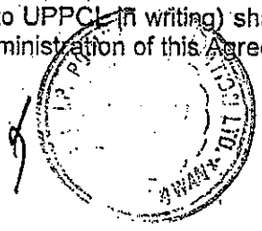
(c) Except as otherwise provided in this Agreement, all notices and communications shall be deemed to have been duly given and effective when made in accordance with this Section 19.1 and received by the other Party.

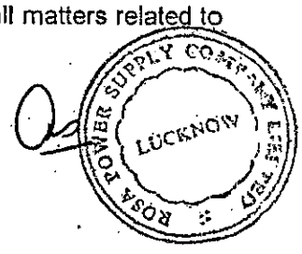
Section 19.2 UPPCL's Authorised Representative

(a) UPPCL's Authorised Representative (or such other person as UPPCL shall notify to ROSA in writing) shall represent UPPCL in all matters relating to the administration of this Agreement.

Section 19.3 ROSA's Authorised Representative

(a) Authorised Representative of ROSA (or such other person as ROSA shall notify to UPPCL in writing) shall represent ROSA in all matters related to the administration of this Agreement.





ARTICLE 20

WAIVER OF IMMUNITY FROM SUIT AND EXECUTION

Section 20.1 Waiver of Immunity

(a) UPPCL hereby expressly and irrevocably agrees that it is without limitation subject to civil commercial and criminal Law with respect to the execution, delivery and performance of this Agreement and its obligations under this Agreement, UPPCL hereby irrevocably submits to the jurisdiction of Competent Courts from an intertroductory order or injunction, enforcement of such order from attachment before judgement, from attachment in aid of execution of any arbitral award or judgement or from any other legal process in respect of or against its revenues, assets or properties.

UPPCL confirms that it has no soverign immunity and both the parties agree to be on equal footing.

U.P. POWER CORPORATION LTD. LUCKNOW SHAKTI BHAWAN

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

ARTICLE 21

MISCELLANEOUS PROVISIONS

Section 21.1 Amendments

(a) This Agreement, including the schedules under this Agreement may only be amended with the written consent of the Parties or their successors or where permitted, assignees, and no oral waiver or amendment shall be effective under any circumstances whatsoever. No amendment of this Agreement shall be effective if the effect thereof is to render invalid or render unenforceable the guarantee given by GOUP pursuant to the GOUP Guarantee and Support Agreement.

Section 21.2 Assignments

(a) Neither Party shall assign this Agreement or any portion of this Agreement without the prior written consent of the other Party such consent not to be unreasonably withheld.

(b) Notwithstanding the above, UPPCL shall have the right, with prior written notice to Rosa to assign this Agreement in whole or in part to any entity(ies) assuming all or part of UPPCL's, rights and obligations hereunder; provided, however,

(i) this Agreement, the Government Guarantee, the Implementation Agreement, the Letter of Credit, and the Escrow Agreement remains in full force and effect and enforceable by and against all the parties to such agreements including such assignee(s) and confirmation of the same has been received by Rosa;

(ii) Such assignee(s) has the technical capability and operating experience sufficient to continue the performance of its/their obligations under this Agreement;

(iii) Such assignee(s) has the financial standing to perform its obligations under this Agreement, and a creditworthiness at least equal to that of UPPCL at the Effective Date of this Agreement; and

(iv) Rosa shall be no worse off with respect to its rights under this Agreement.

(c) Parties further agree that in case of assignment of all of the obligations under this Agreement by UPPCL, such assignee(s) shall provide a confirmation that they have assumed all obligations of UPPCL and shall be fully responsible for their performance under the Agreement.

(d) In case only a portion of this Agreement is assigned such that certain obligations remain incumbent on UPPCL, UPPCL confirms that ROSA shall continue to be entitled to exercise its rights against UPPCL in respect of such unassigned portion and in respect of the obligations that are assigned, UPPCL alongwith the assignee(s) shall provide a

confirmation that co-ordinated efforts shall be taken to ensure that UPPCL alongwith such assignee(s) shall be fully responsible for the performance of the obligations hereunder and ROSA shall be entitled to exercise all rights in this regard.

(e) Notwithstanding anything to the contrary contained herein, ROSA shall not require the consent of UPPCL for assignment of this Agreement or any portion of it to any co-developer or Affiliate prior to the Date of Financial Closing provided:

(i) the assignee shall expressly assume the assignor's obligations under this Agreement, and

(ii) no such assignment shall impair any security given by ROSA under this Agreement.

(f) Except expressly agreed by the other Party, no assignment, whether or not consented to, shall relieve the assignor of its obligations under this Agreement.

(g) UPPCL shall consent to the assignment by ROSA of its right under this Agreement to the Financing Parties or any persons, their successors and assignees in connection with any financing or refinancing related to the construction, operation and maintenance of the Station, and shall execute documents reasonably satisfactory to ROSA upon request by ROSA to evidence such consent.

(h) UPPCL shall consent to the encumbrance by ROSA of all or part of ROSA's rights or interests under any agreements related to the construction operation and maintenance of the Station including the amounts payable under these agreements as security for other agreements.

(i) UPPCL agrees and acknowledges that the Financing Documents may provide that upon an event of default by ROSA under the Financing Documents the Financing Parties may under certain circumstances assume the interests rights and obligations of ROSA arising under this Agreement.

(j) If any of the Financing Parties assume obligations under this Agreement, they shall not be personally liable for the performance of such obligations, except to the extent of all their right, title and interest in and to the Station and any and all contracts (excluding the Financing Documents).

(k) Notwithstanding any such assumption by the Financing Parties, ROSA will not be released and discharged from and shall remain liable for any and all obligations to UPPCL arising or accruing under this Agreement prior to such assumption, or after such assumption for obligations which expressly survive the termination or expiration of this Agreement.

UPPCL agrees and acknowledges that the Financing Documents shall provide that upon an event of default by ROSA under the Financing Documents, the Financing Parties, may in addition to the exercise of their rights as set forth in this Section, cause ROSA to sell or lease the Station and cause any new lessee or purchaser of the Station to assume all of

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

the interests, rights and obligations of ROSA thereafter arising under this Agreement and UPPCL consents to such provisions.

(l) This Clause may be amended to reflect the requirements of the Lenders and UPERC.

Section 21.3 Successors and Assignees

This Agreement shall ensure to the benefit of and be binding upon the Parties hereto, their respective heirs, legal representatives, successors, assignees, administrators, executors, etc.

If, as a result of a law or statutory scheme or any Order by a Government Authority, the obligations of UPPCL under this Agreement are to be performed in whole or in part by one or more successor entities, Parties agree that the rights available in this Agreement shall be available against such successor entities and/or UPPCL as the case may be and ROSA will be no worse off with respect to its rights under this agreement as a result of such law, statutory scheme or Order of Government Authority.

Section 21.4 Confidential Information

(a) UPPCL acknowledges and understands that its position creates a relationship of confidence and trust between ROSA and UPPCL with respect to any confidential information which pertains to the business of ROSA to the business of any actual or potential client or customer of ROSA, and which may be made known to UPPCL by ROSA or by its Affiliate or obtained by UPPCL during the negotiation leading to this Agreement and during the Term of this Agreement.

(b) Each Party agrees that except as directed by the other Party or a Court of competent jurisdiction it will not at any time during or after the Term of this Agreement disclose any confidential information to any person whatsoever or permit any person whatsoever to examine and/or make copies of this Agreement or any other reports, documents, computer programmes and source codes, that come into its possession or are under its control.

(c) Each Party agrees to keep confidential in accordance with its customary procedures for handling confidential information of this nature, all non-public information provided to such Party by or on behalf of the other Party or any of its Affiliates in connection with this Agreement and identified as being confidential at the time the same is delivered to such Party.

(d) A Party may disclose such confidential information :

(i) at the request of any regulatory or other supervisory authority;

(ii) pursuant to subpoena or other judicial process;

(iii) when required to do so in accordance with the provisions of any applicable Law;

(iv) to a Party's independent auditors, counsel and other professional advisors;

(v) to any other adviser or Financing Party involved in this Station;

(vi) to insurer(s) under any policy or policies of insurance under this Agreement or the Financing Documents;

(vii) in connection with any legal action or dispute arising out of any of the Station Contracts; and

(viii) to any assignee, or prospective assignee, so long as such assignee first executes and delivers to such Party a confidentiality agreement reflecting the foregoing terms and conditions.

(e) For the purposes of this Agreement, "confidential information" includes trade secrets, processes, formulas, data and know-how, software, documentation, programme files, flow charts, drawings, techniques, source and object code, standards, specification improvements, inventions, techniques, customer information, financial and accounting data, statistical data, research projects, business development, financial and marketing plans, strategies, forecasts, computer programmes, customer lists, and information which has been assigned or otherwise conveyed to the Party and is of commercial or other value to the business in which the Party is engaged.

(f) ROSA and UPPCL shall make available to each other such materials, documents and data except those protected by legal privilege or which is subject to any duty of confidentiality to any third party, as the other may reasonably request for the purposes of exercising its rights or carrying out its duties under this Agreement.

Section 21.5 Counterparts

(a) This Agreement may be executed in any number of counterparts, all of which shall constitute one and the same instrument, and either Party may execute this Agreement by signing any such counterpart.

(b) This Agreement shall come into full force and effect when all the Parties have executed any one such counterpart.

Section 21.6 Entirety

(a) This Agreement represents the entire understanding of the Parties with respect to the specific subject matter of the Agreement, and is intended by the Parties to be the final expression of their agreement and is intended also as a complete and exclusive statement of the terms of their agreement with respect to the electric energy sold and purchased thereunder, and supersedes all prior written or oral understandings, offers or other communications of every kind pertaining to the sale or purchase of energy and power to UPPCL or vice versa..

(b) Except for any implementation agreement respecting the Station which is duly executed and delivered between the Parties hereto, all prior written or oral understandings, offers or other communications of every kind

pertaining to the sale of electric energy thereunder to UPPCL by ROSA are hereby abrogated and withdrawn.

Section 21.7 Exclusion of Implied Warranties and Obligations

(a) This Agreement expressly excludes any warranty, condition, duty, obligation or undertaking implied at or by Law, custom or otherwise arising out of any other agreement between the Parties, including any representation by either Party not contained expressly in a legally binding and enforceable document executed by both the Parties.

(b) Each Party acknowledges, understands and confirms that it did not enter into this Agreement in reliance on any such warranty, condition, duty obligation or undertaking.

Section 21.8 Expenses of Negotiations and Further Assurances

(a) Each Party shall pay its own costs and expenses in relation to the negotiation, preparation, execution, delivery and carrying into effect of this Agreement.

(b) Each Party shall from time to time on being requested to do so by the other Party shall co-operate with the other Party for carrying out or giving full effect to the terms of this Agreement.

Section 21.9 Headings

The table of contents, captions and section headings appearing in this Agreement are included solely for convenience of reference and are not intended to affect the interpretation or be determinative of any provision of this Agreement.

Section 21.10 Judgement Currency

(a) If, for the purpose of obtaining a judgement in any court with respect to any obligation of UPPCL under this Agreement, ROSA needs or requires to covert into foreign currency any amount payable in Rupees thereunder, then such conversion shall be made at the Current Rate of Exchange.

(b) If pursuant to any such judgement;

(i) conversion is made on a day other than the day the payment is made by UPPCL; and

(ii) there is a change between the rate of exchange prevailing on the conversion date and that prevailing on the day of payment.

Then UPPCL shall pay any additional amounts, if any, that may be necessary to ensure that the amount paid in satisfaction of any judgement is the amount in Rupees that, when converted at the Current Rate of Exchange on the date of payment, is the amount then due under this Agreement in relevant currency.

(c) Any amount due from UPPCL under this section shall be due as a separate debt and is not to be affected by, or merged into, any judgement being obtained for any other sums due or under or in respect of this Agreement.

Section 21.11 Language

The Language of this Agreement is English. All notices, demands, requests, memorandum, statements, instruments, certificates or other communications given, delivered or made by, or on behalf of, either Party to the other Party, under or in connection with this Agreement shall be in English.

Section 21.12 Legal Advise

Both Parties acknowledge that they have each carefully read and understood the Term of this Agreement and have had the opportunity to consult legal advice prior to executing this Agreement. This Agreement is enforceable by and against both the Parties.

Section 21.13 No Partnership

(a) The Parties are independent contractors.

(b) Nothing in this Agreement creates, nor shall this Agreement or any other agreement or arrangement between the Parties be interpreted or construed to create an association, joint venture, or partnership between the Parties in this Agreement or between the Parties, or any one of them, and any other Person or Persons, nor shall any partnership, obligations or liability be imposed upon either Party.

Neither Party shall have the right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

Section 21.14 Third Parties

(a) This Agreement is intended solely for the benefit of the Parties hereto and shall not confer any right of suit or action whatsoever on any third Party. Nothing in this Agreement shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a party to this Agreement, except as expressly provided in this Agreement or by other agreement in writing.

Section 21.15 Severability

(a) All provisions of this Agreement are intended to be interpreted and construed in a manner to make such provisions valid, legal and enforceable.

(b) The invalidity or enforceability of any phrase or provision shall in no way affect the validity or enforceability of any other portion of this Agreement, which shall be deemed modified, restricted or omitted to the extent necessary to make the Agreement enforceable.

(c) Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall as to such jurisdiction be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof and without affecting the validity or enforceability of such provision in any other jurisdiction.

Section 21.16 Survival of Obligations

(a) Cancellation, expiration or termination of this Agreement shall not relieve the Parties of their outstanding obligations under this Agreement.

(b) The Parties outstanding obligations shall survive such cancellation, expiration or termination of this Agreement.

Section 21.17 Waiver and Preservation of Rights

(a) No action or failure to act on the part of either Party to exercise, and no delay or forbearance in exercising, and no course of dealing with respect to, any right, power or privilege under this Agreement, shall operate or be construed as a waiver thereof, nor shall any single or partial exercise of any right, power, privilege or remedy under this Agreement preclude any other or further exercise thereof or the exercise of any other right, power, privilege or remedy, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

(b) The duties and obligations imposed by this Agreement, and the rights and remedies available under this Agreement shall be cumulative and in addition to and not exclusive of or a limitation of any duties, obligations, rights and remedies otherwise imposed or available by Law.

Section 21.18 Time

(a) Time referred to in this Agreement shall refer to the time in New Delhi, India.

(b) In computing any period of time under this Agreement, the day of the act, event or default from which the prescribed or designated period begins to run, and the last day, shall be included.

(c) Where the time for doing an act falls or expires on a day that is not a Business Day the time is extended to the next Business Day

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement executed as of the day, month and year first above written in the presence of the witness who have signed in their presence and in the presence of each other.

Signed and delivered by UPPCL **(the First Part)** by the hand of Shri S.K. Agarwal, Director (Finance)

(S. K. Agarwal)
Director (Finance) 12-11-06
UPPCL

Witness:

(S. P. PANDEY)
EXECUTIVE ENGINEER
PPA, Shakti Bhawan Extn.
Lucknow.

Signed and delivered by Rosa Power Supply Company Limited **(the Second Part)** by the hand of Shri Ashwani Kumar, Director

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Witness:

(ALOK MUKHERJEE)
Roza Power Company Ltd.
9L, M.G. Marg, Lucknow

SCHEDULE – 1

DESCRIPTION OF THE STATION

The Description of the Station in this Schedule 1 contains a general description of the design of the Station as envisaged at the date of execution of this Power Purchase Agreement (in this schedule called the "Agreement"). The Parties acknowledge that changes may be necessary and/or required on the basis of further site investigations and during the development of the detailed design, construction and installation of the Station and its components and ROSA reserves the right to make any such changes in order to meet its overall objectives under the Agreement. To the extent there is any conflict between the provisions of the Schedule and the Agreement, the provisions of the Agreement shall prevail.

(a) Introduction

The Station will comprise two 300 MW (measured at the generator terminals) coal-fired thermal power plant units (the "Units") located at Rosa in the district of Shahjahanpur, in the State of Uttar Pradesh, India. The capacity and the power produced will be provided to UPPCL pursuant to this Agreement.

The Station will comprise the following facilities :

i) Turbine Island containing two steam turbine generators with auxiliaries.
ii) Boiler Island containing two steam generating units with auxiliaries.
iii) Plant water facilities including river water abstraction facilities.
iv) Waste water treatment and disposal
v) Control Complex
vi) Coal/Fuel facility including Waste disposal facility
vii) Building and Support facilities
viii) Electrical System and Switchyard; and
ix) Housing Colony

The two Units will be arranged in a slide-along configuration with one central control complex. This arrangement and layout will allow space for the addition of two more thermal generation units in the future.

The primary fuel for the Station will be coal supplied by Central Coalfields Limited/Coal India Limited from the Ashoka block of the North Karanpura Coal mines in Bihar, India. Heavy Oil (Low Sulphur Heavy Stock/Residual Fuel Oil) will be used as the secondary fuel for start-up and flame stabilisation at lower load. The ignition fuel will be Light Diesel Oil.

The Station will obtain water for its consumptive uses from the river Garrah flowing adjacent within 1 Km. from the site.

(c) The Station Site

Approximately 595 hectares of land will be developed for the plant, housing colony, water abstraction facility, rail link and the ash disposal area near the village of Rosa in the district of Shahjahanpur, in the State of Uttar Pradesh, having co-ordinates 27° 49' north and 79° 56' east (the "Site") Site development will include clearing, grading, construction of boundary walls/fencing roads, parking lots, green belts etc.

Access to the Site will be obtained from the Shahjahanpur – Hardol SH-25 passing adjacent to the west of Site. Rail access will be obtained by constructing about 7.5 km. Spur line from the Lucknow-Moradabad section of the Northern Railway main line passing about 3 kms. east of Site (including a separate return spur including cross-over of the main line through a Flyover, as per directive of the Railways). The nearest Railway Station, Rosa Junction is about 4 kms. to the north – east of the Site.

(d) The Station

The Station will be oriented and located in a manner so as to minimise the drift from cooling towers and coal and ash particles blowing into the facilities.

Fly ash from the Station will be conveyed pneumatically and removed dry for commercial use or conditioned with recycled water and transported by covered tipper trucks/ high concentration slurry pumping to the ash disposal area site about 4.5 kms. away. Bottom ash will be dewatered at the station hydrobin and transported to the ash disposal site in similar manner.

The electric power generated 20kVwill be stepped up to 220 KV and made available at the Station Switchyard from where UPPCL shall evacuate the power through the various 220 KV transmission lines to be constructed and terminated at the Station Switchyard by UPPCL.

Power for the Station start-up will be brought in through one of these 220 KV lines.

(i) Turbine Island

Each of the two steam turbine generators will be an indoor type tandem compound fully condensing turbine, single reheat, designed for operating steam conditions of 166 ata and 538 Deg. C. The gross output of each Unit at the generator terminals at maximum continuous rating (MCR) will be 300 MW.

The associated three phase, 50 Hz generator will be hydrogen / water-hydrogen cooled, rated at 370 MVA at 0.85 power factor.

Each turbine generator will be provided with an automatic run-up and shut-down system complete with supervising instruments, seal oil unit, hydrogen system, controls and auxiliaries.

The condensate and feed water heating system for each unit will include one surface condenser, two 100% capacity condensate extraction pumps, six / seven stages of feed water heating, three 50% capacity boiler feed pumps and all auxiliaries.

One multi-cell mechanical draft / natural draft cooling tower constructed of fire-proof material per unit will be used to remove the latent heat energy from the condenser shell.

(ii) Boiler Island

Two (2) steam generating units shall be provided, each capable of delivering 1036 tph of steam at 175. ata and 541 Deg. C. at the superheater outlet at MCR. Each steam generating unit will be drum type, two pass, balanced draft, single reheat design and will have the necessary auxiliaries, including.

* Fuel preparation equipment consisting of motor driven heavy duty pulverisers, gravimetric coal feeders, two primary air fans.
* Heavy fuel oil burners
* Steam sootblowers
* Tri-sector type regenerative air preheaters with water washing devices.
* Steam coil air preheaters
* Draft plant consisting of Two 60% capacity each of ID and FD and PA fans
* Full complement of boiler valves, drains, piping and instrumentation
* Chemical feed systems
* Electrostatic Precipitator
* Bottom ash and mill rejects handling systems
* Fly ash handling system

(iii) Plant Water Facilities

The Station will obtain water for its operation from the river Garrah flowing within 1 km west of the site through a river water abstraction facility to be created specially for the Station.

The water pre-treatment system will provide cooling tower make-up, service water, input to the demineralised water plant, fire protection water, potable water for the plant and housing colony etc. The system, to supply the treated water for two units shall be sized to meet the total water requirements of the plant and the housing colony

A demineralised water plant consisting of two 100% capacity streams to provide demineralised water for boiler make-up, auxiliary cooling circuit make-up, hydrogen generation plant, etc. will be provided.

(iv) Waste Water Treatment

The waste water treatment system will treat the waste water from the DMW Plant regeneration, clariflocculator, cooling tower and boiler blowdowns, boiler/power house area and coal/ash handling plant area run-offs, sewage water etc ., before releasing it to the natural stream, in order to ensure full compliance with CPCB/UPPCB norms. Storm water drainage shall be separately routed for the final discharge to the natural stream. Care will be taken to minimise the consumptive water requirement and surface water release by recirculating effluent from one system as input to another to the extent possible.

(v) Control Complex

A single centralised control room will be provided to control and monitor the Station. The control and instrumentation systems will provide integrated operation of the Station by means of microprocessor based distributed digital control system and instrumentation. The systems will be designed for safe and reliable performance and ease of operation and maintenance.

The local control systems with stand alone equipment will utilise similar technology and will be linked to the central control system for centralised monitoring and alarm purposes.

(vi) Coal/Fuel Facility

Coal Delivery

The annual coal consumption for the Station is anticipated to be 2.7 million tonnes of coal based on the Gross Calorific Value of 3760 Kcal/kg.

Coal will be supplied by Coal India Limited from the Ashoka Block of the North Karanpura field in Jharkhand.

Coal will be brought in through the existing rail system by Indian Railways from North Karanpura approximately 870 kms rail distance away.

A new rail spur from the Lucknow – Moradabad section of the Northern Railway mainline passing through east of the site as well as a return spur with a fly – over to cross the mainline (total length of 7.5 kms approximately) will be constructed to bring coal directly into the Station premises, which will have an internal receiving yard of about 5 km long rail system, track hopper, automatic weighing system, etc.

Coal Handling

The Station will have a two stream conveyor system along with screens, crushers, magnetic separators, automatic weighing and sampling systems up to the boiler bunkers for feeding sized coal. There will also be a stockyard for about 45 days storage of coal complete with Stacker – Reclaimer, emergency reclaim hoppers, etc. Each stream of the coal handling system will be of 1000 tph capacity.

Heavy Fuel Oil Handling

Heavy Fuel oil will be used for start-up as well as for support firing at lower loads. This will be brought in by road tankers and unloaded to twin fuel oil storage tanks.

The Fuel oil transfer system will be complete with fuel transfer pumps, strip heating, day tanks and delivery system for each of the two units.

(vii) Building and Support Facilities

The boilers will be semi-open type. The penthouse, drum and burner level floors will be covered by metal cladding. Rest of the passages and walkways will be open to the elements. Chequered plates and anti-skid gratings will be provided excepting in the areas near the burners, which will have RCC floors.

An RCC dual-flue Chimney stack of 275 metres height will be provided for both the boilers.

The turbine building will be an all-steel frame structure with roof truss construction. The operating floors will be reinforced concrete slabs supported on permanent metal decking and steel framing.

In addition, the Station will include the following buildings and structures :-

* Switchyard Control Room
* Administrative Block
* Station Maintenance Building
* Water Treatment Building
* Auxiliary Boiler Building

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

* Fire/Service Water Pumphouse
* Diesel Generator Building
* Warehouses
* Storage Tanks, etc.

(viii) Electrical System and Switchyard

Each Generator will have its own 355MVA, 20/220 KV, three phase, 50 Hz. OFAF main output transformer (generator transformer) which will transfer power to the 220 kV section of the Switchyard. Isolated phase bus – ducts will connect the generators to the LV side of their respective generator transformers (GTs) and overhead line taps will connect the HV side of the GTs to the switchyard.

The unit auxiliary power system at each voltage level will have split bus, dual feed configuration, to be fed from the two Unit Auxiliary Transformers directly connected to generator output buses.

The common systems will normally receive power from the two station transformers (STs) connected to the 220 KV bus at the Switchyard.

The Station electrical system will consist of the 6.6 KV, 415V switchgear and other associated equipment to provide power to the plant auxiliary systems. It will also have a DC power source of different voltage levels for emergency services, C & I power supply etc.

(ix) Housing Colony

A housing colony for staff and officers of the power station will be built about 1 km from the Plant site. It will have service and recreational facilities apart from residential blocks and will be surrounded by a green belt.

SCHEDULE – 2

MAJOR CLEARANCES

The following clearances have been / will be obtained with respect to the Station: -

Sl. No.	Clearances	Clearing Authority
1.	Publication/Sec.29(2)	GOUP
2.	Water availability	CWC / GOUP
3.	State Government Clearance	GOUP / UPPCL
4.	Pollution Clearance (Water & Air)	UP Pollution Control Board
5.	Environmental Clearance	Ministry of Environment and Forests
6.	Forest Clearance	GOUP / Department of Forests
7.	Civil Aviation Clearance for Chimney Height	National Airport Authority
8.	Company Registration	Registrar of Companies
9.	Approval of PPA and various project agreements	UPPCL / UPERC
10.	Project Cost / Tariff Approval	UPPCL / UPERC
11.	Rehabilitation & Resettlement of displaced Families by Land Acquisition	GOUP / Ministry of Environment and Forests
12	Land Availability	GOUP
13	Fuel Linkage	Ministry of Coal
14	Financing	UPERC/Ministry of Power/Dept. of Economic Affairs/Financial Institutions
15	Transportation of Fuel	Ministry of Railways

SCHEDULE – 3

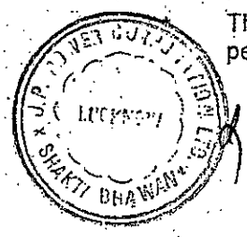
GENERATOR ELECTRICAL CHARACTERISTICS

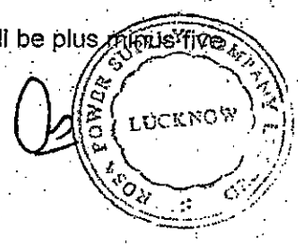
These will be finalised after concluding the Plant EPC contract.

A general description of the generator as specified is given below The Parties acknowledge that changes may be necessary and/or required on during the development of the detailed design, construction and installation of the generator and its components. ROSA reserves the right to make any such changes in order to meet its overall objectives under the Agreement. To the extent there is any conflict between the provisions of this Schedule and the Agreement, the provisions of the Agreement will prevail.

The Unit I and the Unit II generators shall be capable of operating in parallel with each other and with the UPPCL System. Each Generator shall be

* 50 Hz and able to operate within a frequency range of 47.5 Hz to 51.5 Hz.
* Having Static Excitation System/ Brushless Excitation System
* Having a Guaranteed Maximum Continuous Rating (MCR) of 300 MW at the Generator Terminals, at rated power factor of 0.85 lagging, rated terminal voltage, three phase, 50 Hz., and at rated Hydrogen pressure.
* Capable of operating at MCR at power factors from 0.85 lag to 0.95 lead without loss of stability and control.
* Provided with a Short Circuit Ratio between 0.55 and 0.60.
* The Generator voltage range at rated frequency operation shall be plus minus five percent (± 5%).





SCHEDULE – 4

FUEL SPECIFICATIONS

COAL

The specification of coal will be finalised after concluding the Coal Supply Agreement with Central Coalfields Limited.

For the Station design the analysis for the range of coal considered is as follows :

COAL PROPERTIES		DESIGN COAL	WORST COAL
TOTAL MOISTURE	% ar	13.00	12.00
ASH	% ar	40.00	45.00
VOLATILE MATTER	% ar	17.50	15.30
FIXED CARBON	% ar	29.5	25.70
SULPHUR	% ar	0.28	0.24
GCV	Kcal/kg	3404	2970
HG INDEX (HGI)		50.00	50.00

SCHEDULE – 5

TRANSMISSION AND INTERCONNECTION FACILITIES

PART A – UPPCL'S RESPONSIBILITY

The UPPCL Transmission System which will be used to evacuate Available Energy from the Station shall include the following power system hardware.

1. 2 – Double Circuit 220 KV Rosa – Shahjahanpur line
2. 1 – Double Circuit 220 KV Rosa – Hardoi line
3. 1 – Single Circuit 220 KV Rosa – Badaun line
4. 220/132 KV, 2 x 100 MVA Hardoi Sub – Station
5. Necessary 132 KV inter-connectors between 220 KV and 132 KV Hardoi Sub-Station

UPPCL shall build the above 7 nos., transmission lines and tie into the Station's 220 KV Switchyard Outgoing Gantry.

Start-up power will be imported from the 220 KV UPPCL System feeding the 220 KV Station Transformers. The Start-up power shall be made available to the Station on a continuous basis, whenever it is needed.

UPPCL shall be responsible for supplying and providing all materials, labour and equipment to complete the work from and after the ROSA 220 KV Switchyard Outgoing Gantry.

PART B – ROSA's RESPONSIBILITY

ROSA shall be responsible for supplying and providing all material, labour and equipment to complete the work of its 220 KV Station switchyard up to the terminal points at the Station Outgoing Gantry (the "Internal Connection Facilities").

The Station includes the 220 KV Switchyard that allows evacuation of the Available Energy via 7 (seven) 220 KV transmission lines identified above plus space only for terminating two more 220 KV lines in future. Included are the 220 KV circuit breakers, disconnecting switches, Station and Generator Transformers, all protection, control and metering associated with the 220 KV supply lines.

The Station shall have Stand-by power source in the form of Emergency DG Sets for safe shut-down of the Station in case of a system blackout. It should be clearly understood that the capacity of this stand – by power source will not be adequate for start – up of the Station after a trip – out or stoppage of generation and UPPCL will be responsible for providing the start – up power as and when it is required by the Station, failure in which shall be treated as inability on the part of UPPCL to evacuate power and Station will be eligible for getting Deemed Energy benefits.

PART C – METERING POINTS AND DELIVERY POINTS

Metering for the power generation and power evacuation at the generator terminal side and at each of the 7 (seven) nos. outgoing points, which shall be the Delivery Points, shall be provided. Import of power shall also be effected through any of these seven

transmission lines and a set of Import and Export meters will be provided at each of these points to facilitate proper recording.

PART D – INTERCONNECTION PROCEDURES

To ensure that the Station 220 KV switchyard together with the transmission facilities will be in service at the agreed time, it shall be the responsibility of both ROSA and UPPCL to set up interconnection procedures. These procedures shall be drawn up and executed by a coordinating team with representatives from both parties.

The Coordinating Team shall be responsible for the following:-

a) Ensure that all work required for the proper design, construction, commissioning and testing of ROSA's Station Switchyard and UPPCL's transmission facilities including all technical information, design criteria co-ordination and studies are completed according to the ROSA's Construction Schedule.

b) Ensure appropriate co-ordination of all construction activities at the Interconnection Points :

c) Ensure that the review of relay settings and installation and calibration of the metering system is completed on schedule;

d) Co-ordinate the commissioning activities to ensure that all necessary tests of the protection, control and communication system are completed to mutual satisfaction.

e) Ensure compliance with IE Rules and Inspection requirements.

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SCHEDULE – 6

PERFORMANCE TEST AND OTHER TESTS

I. Test Objectives

The objectives of the Performance Test and other tests are to establish and demonstrate the performance and operational characteristics of each Unit of the Station under this Agreement.

II. Tests

The following tests shall be carried out under the Performance Test and other tests:-

1. Performance Test :

The Performance Test of each unit shall be carried out under any and all ambient conditions that may exist during the time of the Performance Test. During the Test, the Nameplate Capacity shall be demonstrated with the specified range of fuels. Normal on-line plant instrumentation will be utilized for recording of operating parameters.

The Performance Test of each unit shall be deemed to have been completed, if the unit operates continuously for seventy two consecutive hours at or above ninety five (95) percent of its Nameplate Capacity and within the generator electrical characteristics given in Schedule 3.

The Performance Test may be carried out as part of the Reliability Run Test described below depending on the convenience of the Construction Contractor.

UPPCL shall maintain the stability of the frequency, voltage and other electrical properties of the UPPCL System throughout the duration of the Performance Test and other Tests. In the event of any instability of voltage, frequency or other electrical properties of the UPPCL System during the Performance Test, which has an adverse effect on the ability of the Station to operate at its Nameplate Capacity, the test results shall to the extent technically feasible be adjusted to take account of such variations but otherwise the Tests shall be void and be recommenced.

ROSA shall give not less than seven (7) days written notice to UPPCL for the Performance Test to be performed at the Station. UPPCL may send its representatives to the Station for the purposes of witnessing the Performance Test.

2. Other Tests: The following other Tests shall be carried out on each unit before it is finally accepted by ROSA:-

i) Functional Verification Test (i.e. Electrical Metering and Relaying)
ii) Characteristics Test
iii) Reliability Run Test
iv) Performance Guarantee Test

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It is clarified that the obligation of Rosa with respect to the Construction Contract shall be limited to only undertaking these other Tests and providing a report thereof to UPPCL and shall not in any way require the witnessing of UPPCL of these Tests.

UPPCL shall accept into the UPPCL System all the electric energy generated during the Tests and shall pay to ROSA the amounts specified under this Agreement.

i) Functional Verification Tests

ROSA shall perform Functional Verification Tests of the protection, control and tariff metering system of the generating Station as well as the switchyard and transmission facilities. The objective of the Functional Verification Tests is to ensure that power equipment, protection and control system will perform as designed to protect the electrical power system in a reliable manner and not jeopardize ROSA's or UPPCL's facilities.

The design of the protection control and the tariff metering system shall include adequate test facilities so that functional tests can be properly performed.

The Functional Verification Tests on relays, meters and control equipment shall be in accordance with manufacturer's recommendations.

ii) Reliability Run Test

After first synchronization, stabilization of various sub-systems and carrying out various functional tests, each Unit shall be put to Reliability Run Test. It shall be carried out for a continuous period of 14 days at the prevailing ambient conditions, out of which 72 hours shall be in continuous operation on full load. During the test the Unit shall be operated under various operating modes and for the entire range of fuel inputs.

During the Reliability Run Test, but not during the 72 hours full load run, the various tests under the Characteristic Tests as below may also be performed.

iii) Characteristics Test

The following set of tests (the " Characteristics Test") shall be carried out in respect of each unit:-

- A representative samples of ramp rates, by ramping up or down the gross turbine load while maintaining the required temperatures and temperature differences associated with each ramp rate within the turbine while maintaining all other operational parameters within equipment limits;
- Response of a Unit to step load changes;
- Maximum capacity of each unit shall be tested with the turbine valves wide open (ie. 105% TMCR) at normal turbine operating pressure;
- Automatic voltage regulator droop test;
- Reactive capability test;
- Minimum load capability without oil support for at least two (2) hours;
- Load rejection test at 25%, 50%, 75% and 100% of Maximum Continuous Rating (MCR) load;
- House load operation;

- Tests for start up times for Cold, Warm and Hot Starts;

These tests shall be generally performed during the Reliability Run Test.

iv) Performance Guarantee Tests

The objective of the Performance Guarantee Tests is to verify the performance (efficiency) figures of each Unit

Boiler Performance Guarantee Test shall be carried out as per ASME PTC 4 based on gross calorific value and the Turbine Performance Guarantee Test shall be as per ASME PTC 6.

The Performance Guarantee Test shall be carried out at 100% of Maximum Continuous Rating to verify the Unit's Gross Plant Heat Rate and Auxiliary Power Consumption.

III. Test Procedures

ROSA will determine and prepare the Test procedures. A test schedule for the Performance Test and other Tests will be agreed in not less than One Hundred and Twenty (120) days prior to the synchronization of each unit.

IV. Data Recording and Measurement

1. ROSA will provide the necessary labour, material, instrumentation and controls to record, observe and evaluate the Test data and maintain the logs of all data taken.
2. Where practical, the data will be recorded in both hard copy and electronic form.
3. ROSA shall specify the variables that will be recorded, the form of recording and the frequency of recording each variable during each Test.
4. All instruments and meters will be calibrated in accordance with Accepted Industry Practice prior to the Tests.

V. Test Reports

1. ROSA will provide to UPPCL report of the Tests results and other relevant data.
2. The format and contents of the test reports may be modified by mutual agreement between ROSA and UPPCL in order to meet the test objectives.

SCHEDULE - 7

DEPRECIATION

Appendix II to Central Electricity Regulatory Commission (CERC) (Terms and Conditions of Tariff) Regulations, 2004

Depreciation Schedule

Description of Assets	Useful Life(yrs)	Rate (Calculated w.r.t. 90%)	
	1	2	3=1*2
A. Land owned under full title	Infinity	---	
B. Land held under lease:			
(a) for investment in land.	The period of lease or the period remaining unexpired on the Assignment of the lease.	---	
(b) for cost of clearing site	The period of lease remaining unexpired at the date of clearing the site.	---	
C. Assets: Purchased new : (a) Plant and machinery in generating Stations including plant foundations :-			
(i) Hydro-electric	35	2.57	90
(ii) Steam-electric NHRS & Waste Heat Recovery Boilers/Plants	25	3.60	90
(iii) Diesel-electric & gas plant	15	6.00	90
(b) Cooling towers and circulating water systems	25	3.60	

(c) Hydraulic works forming Part of hydro-electric system including:-			
(i) Dams, Spilways weirs, canals reinforced concrete Flumes & syphons	50	1.80	90
(ii) Reinforced concrete pipelines and surge tanks, steel pipelines, sluice gates, steel surge (tanks) hydraulic control valves and other hydraulic works.	35	2.57	90
(d) Building & civil engineering works of a Permanent character, not mentioned above:-			
(i) Offices & showrooms	50	1.80	90
(ii)Containing thermo-electric generating plant	25	3.60	90
(iii) Containing hydro-electric generating plant	35	2.57	90
(iv) Temporary erection such as wooden structures	5	18.00	90
(v) Roads other than kutcha roads	50	1.80	90
(vi) Others	50	1.80	90
(e) Transformers, transformer (Kiosk) sub-station equipment & other fixed apparatus (including plant foundations)			
(i) Transformers (including foundations) having a rating of 100 kilo volt amperes and over	25	3.60	90
(ii) Others	25	3.60	90
(f) Switchgear, including cable connections	25	3.60	90
(g) Lightning arrestors: (i) Station type	25	3.60	90

(ii) Pole type	15	6.00	90
(iii) Synchronous condensor	35	2.57	90
(h) Batteries:	5	18.00	90
(i) Underground Cable Including joint boxes and disconnected boxes	35	2.57	90
(ii) Cable duct system	50	1.80	90
(l) Overhead lines including supports:			
(i) Lines on fabricated steel operating at nominal voltages higher than 66 KV	35	2.57	90
(ii) Lines on steel supports operating at nominal voltages higher than 13.2 Kilo volts but not exceeding 66 Kilo vols	25	3.60	90
(iii) Lines on steel or reinforced concrete supports	25	3.60	90
(iv) Lines on treated wood supports	25	3.60	90
(j) Meters	15	6.00	90
(k) Self propelled vehicles	5	18.00	90
(l) Air conditioning plants: (i) Static	15	6.00	90
(ii) Portable	5	18.00	90
(m) (i) Office furniture and fittings	15	6.00	90
(ii) Office equipments:	15	6.00	90
(iii)Internal wiring including fittings and apparatus	15	6.00	90
(iv) Street light fittings	15	6.00	90
(o) Apparatus let on hire:			

(i) Other than motors	5	18.00	90
(ii) Motors	15	6.00	90
(p) Communication equipment:			
(i) Radio and higher frequency carrier system	15	6.00	90
(ii) Telephone lines and telephones	15	6.00	90
(q) Assets purchased second hand and assets not otherwise provided for in the schedule	Such reasonable period as the competent Government determines in each case having regard to the nature, age and condition of the assets at the time of its acquisition by the owner.		

SCHEDULE - 8

DISPATCH PROCEDURES

ROSA shall, whenever possible, subject to equipment and system limitations, control and operate the Station according to UPPCL's System control and dispatch requirement at or near base load. No Unit shall be despatched at less than Fifty per cent (50%) of its Established Baseload Capacity unless mutually agreed.

ROSA and UPPCL shall mutually develop written procedures not later than ninety (90) days prior to the Scheduled Synchronisation Date of the Unit(s) to

- Address availability projections for the Station (annual, monthly and weekly projections).
- Despatching procedures (which shall include monthly, weekly and daily Dispatch Schedules).
- Switching practices outage scheduling, Daily Capacity and energy reports, the method of day to day communications, list of personnel contacts for both Station and UPPCL operating centres.
- Unit operations log and performance specifications of the Station.

The dispatch procedures shall be based on the design of the Stations, the interconnection and the integration into UPPCL's electrical system. The purpose is to ensure system safety, security, stability, reliability and optimising generation to UPPCL's system. These procedures shall allow the Station to operate within its Technical Limits and at optimum efficiency points.

The Metering System will consist of Meters and Instrument transformers (ROSA and UPPCL) which shall satisfy the following :

- Current transformers of nominal accuracy class as per IEC standard
- Potential transformers of nominal accuracy class as per IEC standard

Both the ROSA Meters and the UPPCL Meters shall comply fully with the requirement of the Electricity Rules with respect to technical specification, description, accuracy and calibration.

In the event of dispute of meter inaccuracies, the dispute shall be resolved by the Experts and failing this, it will be sent for Arbitration.

Emergency Plan

ROSA will co-operate with UPPCL in establishing emergency plans, including recovery from a local or widespread electrical blackout. Start-up times in this situation will depend on the Generating Facility conditions when the emergency is declared.

Reduction and Resumption of Deliveries

Dispatch Instructions by UPPCL for any reduction or increase of ROSA's deliveries shall be completed and communicated as soon as possible, in a manner consistent with Accepted Industry Practice. At least six (6) hours of notice of Dispatch Instruction is acceptable. However, only under emergency conditions the notice of Dispatch will be shorter.

Outage Schedule

Long term and short term Scheduled Outages must be jointly coordinated between ROSA and UPPCL in accordance with the Maintenance Programme.

Operating Records

Each Party shall keep complete and accurate operating records and all other data required for the purposes of proper administration.

ROSA will maintain an accurate and up to date operating log at the Station in accordance with Accepted Industry Practice with records of :

(i) Active power and Reactive Power production for each clock hour;
(ii) Changes in operating status;
(iii) Scheduled Outages and Forced Outages;
(iv) Frequency and voltage in the UPPCL System and any other abnormal conditions.

II DAILY DECLARED CAPACITY NOTICE

(a) Following the Unit I Commercial Operation Date, ROSA shall deliver to UPPCL every day at 10.00 hours a notice indicating the Daily Declared Capacity available for a period of next 24 hours. The Notice of "Daily Declared Capacity" shall contain the following information :

(vi) the date and time that the Notice is issued;
(vii) the Scheduled Day to which it relates;
(viii) the Daily Declared Capacity of the Station throughout the relevant Day (and where such Daily Declared Capacity changes, the time at which any change is expected to take effect);
(ix) the Daily Declared Capacity of each Unit throughout the relevant day measured at the generator.
(x) ROSA's expectation, if any, that the Station or a Unit may not be capable of safely operating within the Technical Limits and at optimum efficiency during the relevant Day, what modified limits should apply and for which time periods and a description of the situation.

(b) Whenever ROSA believes that any information that it has provided to UPPCL pursuant to this Schedule no longer accurately reflects its expectations, it shall promptly deliver to the UPPCL Control Centre a written notice ('a Revised Daily Capacity Notice') revising that information.

(c) A Revised Daily Capacity Notice shall contain the following information :

the date and time that the Revised Daily Capacity Notice is issued;
a reference to the previously provided information that is to be revised

a statement of the changes required to be made to the declaration being modified by such Revised Daily Capacity Notice to reflect ROSA's revised expectations regarding the Units and the Project.

(d) A declaration in a Daily Declared Capacity Notice or Revised Daily Capacity Notice increasing the Daily Declared Capacity from zero shall be taken to mean that the Station is capable of being synchronised to the transmission system at the time that the increase is stated to be effective.

(e) When the ROSA has stated in a Daily Declared Capacity Notice or Revised Daily Capacity Notice that it expects the Station or a Unit to be incapable of safely operating in accordance with the Technical Limits, and for which ROSA has provided modified limits, UPPCL shall not request the Station to operate beyond such limits, except in an Emergency.

(f) ROSA shall take reasonable care in preparing Daily Declared Capacity Notices or Revised Daily Capacity Notices with a view to declaring accurately ROSA's expectations regarding the performance of the Station and each of the Units.

Declared Capacity Penalty

UPPCL will dispatch ROSA's latest Declared Capacity

A Declared Capacity Penalty shall apply to ROSA whenever the dispatch Capacity thus requested by UPPCL is greater than the Capacity that the Station actually achieves but is within the Daily Declared Capacity as declared by ROSA in the Daily Declared Capacity Notice or latest Revised Daily Declared Capacity Notice (except where the shortfall constitutes Deemed Energy or is caused by a Force Majeure Event or UPPCL default). Declared Capacity Penalty shall be calculated as follows :

Declared Capacity Penalty = Σ (DC-AC)*T*1.5

Where;

DC = Latest Declared Capacity by ROSA in MW

AC = Capacity actually achieved by the station at the time of receipt of the latest Dispatch Instructions in MW but is less than that desired as per latest Dispatch Instruction.

T = Duration in hours between the time of latest Dispatch Instruction and the time when the Station had last achieved the capacity which is equal to or higher than that desired as per latest Dispatch Instruction or if more recent, the time of delivery of the latest Daily Declared Capacity Notice or Revised Daily Capacity Notice but in nc event shall 'T' exceed 24.

= Summation

SCHEDULE – 9

METERING

Applicable Standards

Latest versions of following Standards (or their equivalent India Standards) will be applicable.

IEC-687	for Static Energy Meters
ISS-13779	for Static Energy Meters
BIS- 2705	for Current Transformers
BIS- 3156	for Potential (Voltage) Transformers
CBIP	Report No.88 for Solid State Meters

Type of Meters

Meters shall be microprocessor based Tri-Vector Meters

Provision should also be made for remote reading and telemetering of energy consumed.

Accuracy Class

The meters shall be of accuracy class as per IEC – 687 or its Indian equivalent standard.

Allowable Error in Accuracy

The allowable error in basic accuracy shall be as per latest IEC – 687 or its Indian equivalent standard as applicable for type and accuracy of meters installed. Overall error of the metering system at 10% to 125% of rated current at Unit power factor shall not exceed ± 0.5%.

Meter Calibration, Testing, Sealing, Re-calibration Period etc.

New meters are to be initially calibrated in accordance with IEC – 687 or its Indian equivalent.

The meter(s) shall be tested and calibrated at least once every year.

The metering circuit should also be checked by primary/secondary injection once every year or after every overhaul (whichever period is less).

Calibration, testing, sealing etc. is to be always done jointly in presence of authorised representatives of both the parties.
Each party will control issue of its own seals/sealing pliers and keep a register of all such pliers and the persons to whom these have been issued.

The CT/PT cubicles/kiosks should be also be suitably sealed.

During each calibration effort must be made to keep the error as near to zero as possible.

Test/Calibration Equipment

Solid state sub-standard meter suitable for checking the accuracy of class 0.2S meters should be used. These should be duly calibrated and sealed by Government authorised meter testing house/lab or by mutually agreed independent test house where such facilities are available.

Similarly suitable primary/secondary injection sets should also be available at the plant.

The test equipment be got calibrated jointly after every fixed period to be decided as per the recommendations of the testing equipment manufacturer.

Current Transformers (CTs) & Potential Transformers (PTs) for Metering Purpose:

The current Transformer(s) are to be as per BIS-2705 for minimum rated output of 15 VA.

The voltage Transformer(s) are to be as per BIS-3156 for minimum rated output of 100 VA.

The CT/PT secondary winding(s) supplying a main meter will be dedicated for that meter unless otherwise agreed. However, the secondary winding(s) supplying a check meter can be used for other purposes as long as there is no degradation of accuracy beyond the defined limits.

The burden on any CT/PT associated meters will not be modified without obtaining approval of other party.

Common return wire for two or more CT secondary circuits is not permitted.

Each meter shall be fed by a separate fused set of leads from the PT.

If main and check meters are to be connected to the same PT then separate fuses have to be provided for each circuit.

Each fuse in the PT circuit will be monitored and alarmed for voltage failure for loss of one or more phases of voltage supply to any meter.

Suitable standard test terminal blocks are to be provided to facilitate on site testing of the meter and metering circuit.

The CT cable size should not be less than 6 sq mm Copper.

PT cable should not have resistance greater than 0.2 ohm/phase.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

SCHEDULE 10

CAPITAL COST / DEBT / EQUITY

This Schedule should lay out Interest Payment Schedule based on lenders agreement and as approved by UPERC. It should also list details of Interest During Construction, Interest on Domestic Debt and Interest on Foreign Debt etc.

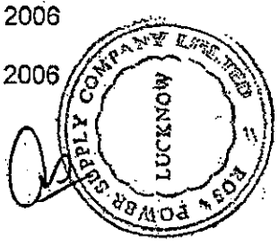
SCHEDULE – 11

UPERC Orders

(a) Order dated February 2, 2006

(b) Order dated November 1, 2006

(c) Order dated November 8, 2006





BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

Petition No.306/2006

IN THE MATTER OF: Approval of Power Purchase Agreement signed with Rosa Power Company Ltd. for purchase of 600 MW power

AND

IN THE MATTER OF:

UP Power Corporation Ltd.
(Through GM, PPA Directorate)
14, Ashok Marg,
Lucknow

:Petitioner

M/s Rosa Power Supply Company
14-A/5, Park Raod,
Lucknow

:Respondent

The following were present :
1. Sri. Rahul Misra, Sr. Analyst, IMACS
2. Sri. Rahul Sharma, AGM, IMACS
3. Sri. Ajay Kr. Singh, Sr. Specialist, IDFC Ltd.
4. Ms. Veena Ravi Shankar, TCE, Bangalore
5. Sri. S.S Rao, Rosa Power Company
6. Sri. Abhay Athalye, Rosa Power Company
7. Sri. R.G Rathor, RPSCL Ltd.
8. Sri. V.K Singh, RPSCL Ltd.
9. Sri. Atul Srivastava, RPSCL Ltd.
10. Sri. S.T Hasan, EE,PPA Directorate, UPPCL
11. Sri. O.P Malhotra, GM, PPA,UPPCL
12. Sri. S.K Agarwal , Director(Finanace), UPPCL

ORDER
(Date of Hearing 2.2.06)

Through the said Petition, the Petitioner has sought approval of Power Purchase Agreement(PPA) signed by UP State Electricity Board, the predecessor of

UPPCL, with Rosa Power Company Ltd. on 24.9.98. It is stated that the original PPA signed on 24.9.98 has been amended in 24.9.99 and now second supplementary agreement has been agreed to be entered into on account of the Electricity Act,2003,UPERC and CERC Regulations on terms and conditions of tariff coming into force as such the. After the filing of the said Petition, the Petitioner has submitted; revised cost estimates of Rosa Thermal Power Station as submitted by the Respondent by letter No.59/GM/PPA Rosa dated 18.1.06, a comparative statement of amendments made in the original PPA as submitted by Respondent by letter No.95/GM/PPA Rosa dated 28.1.06 and a consolidated draft of final PPA as submitted to the Petitioner by the Respondent by letter No.117/GM/PPA/Rosa dated 1.2.06 .

The Respondent made a representation before the Commission in respect to the project, contractual arrangements, terms and conditions agreed with the Petitioner in deviation to UPERC Regulations, the revised cost of the project etc. The Respondent submitted that the revised cost of the project was Rs.2641.63 Cr. for 600 MW project against Rs.2713 Cr. approved by the CEA earlier for 567 MW capacity. It was contended by the Respondent that the cost of Rosa project was comparable with the cost of Nagarjun Sagar project cleared by CERC. The comparison of cost was discussed in detail and found reasonable. The Petitioner had also agreed to the revised cost estimate as put by the Respondent. Regarding foreign exchange component, it was stated by the Respondent that the said cost included a maximum of US $296.6 m as debt at exchange rate of Rs.45.5 and there was no foreign equity. The Petitioner expressed no objection to the same. It was pointed out by the Respondent that it had agreed with the Petitioner to seek deviations from UPERC Regulations in respect to stock of coal, escalation on spares and receivables and decided to adopt the norms specified by CERC in that regard.

Besides above, the Respondents submitted the following:

1. the tax on incentives might be made a pass through,

U.P. ELECTRICITY REGULATORY COMMISSION

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

2. auxiliary consumption should include consumption of the colony as per the order of the Central Govt.,
3. impact of cost of purchase of coal, if any, beyond the availability higher than the target availability be allowed as pass through in tariff,
4. financial closure within 9 months
5. Commissioning of first unit within 37 months and 40 months for second unit from the date of financial closure.

The Petitioner had not objected to any of the above proposals made by the Respondent.

The Commission, in consideration of the mutual agreements arrived between the parties to the PPA and submissions made in the hearing, decides to accord in principle approval to the PPA subject to following conditions:

1. The terms and conditions in the PPA shall be governed by UPERC (Terms and Conditions of Generation Tariff), Regulations,2004 subject to the exception that the stock of coal, escalation on spares and receivables shall be taken as per the CERC Regulations for the purpose of determination of interest on working capital.
2. The capital cost of the project shall be Rs.2641.63 Cr. as ceiling cost for the purpose of determination of tariff,
3. The foreign debt component shall be limited to US $ 296.6 m.
4. There shall be no foreign equity in the project.
5. Financial closure should be made in 4 months from the date of this order, as agreed by the Respondent during the hearing.
6. The date of C.O.D of first unit shall be within 41 months and second unit within 44 months reckoned from the date of this order.
7. Since UPPCL being STU is not to engage in trading as per the provisions of the EA, 2003, as such the PPA in question shall be assigned to the concerned distribution companies as per the decision of the State Govt.

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ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW 3

The Petitioner is directed to submit before the Commission final draft of the agreement duly agreed between the parties on an affidavit after incorporating the said decisions of the Commission for approval within one month of the date of this order.

(R.D. Gupta)
Member

(P.N. Pathak)
Member

(Vijoy Kumar)
Chairman

Lucknow, Dated : 2nd Feb, 2006

U.P. ELECTRICITY REGULATORY COMMISSION * उत्तर प्रदेश विद्युत नियामक आयोग *

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

Petition No.306/2006

IN THE MATTER OF: Approval of Power Purchase Agreement signed with Rosa Power Company Ltd. for purchase of 600 MW power

AND

IN THE MATTER OF:

UP Power Corporation Ltd.
(Through GM, PPA Directorate)
14, Ashok Marg,
Lucknow

:Petitioner

M/s Rosa Power Supply Company
14-A/5, Park Raod,
Lucknow

:Respondent

ORDER

The Commission in its Order dated 2.2.06 directed UP Power Corporation Ltd., (UPPCL), the Petitioner, to submit final draft of Power Purchase Agreement (PPA) after incorporating the decisions of the Commission. The petitioner submitted, vide letter no.278/GM/PPA/Rosa dt.20.3.06, the final draft of PPA on an affidavit jointly signed on behalf of UPPCL and Rosa Power Supply Company Ltd. It is stated in the said affidavit that final draft of the amended and restated PPA is as per directions of the Commission in order dt.2.2.06.

The petitioner, in an application received on 30.10.06, has stated that the Respondent has requested in their letter dt.27.10.06 that the financial closure and other activities for starting the projects could not be taken up due to impending approval of PPA. It is also stated that the Respondent has requested for approval of PPA and making the timelines for financial closure and COD effective from the date of approval of final PPA.

The parties to the petition may note that in Order dt.2.2.06, the financial closure and commissioning of units was to be achieved within 4 months and 41/44 months respectively from the date of the order as agreed by the Respondent in the hearing. These timelines had nothing to do with the approval of final PPA because the Commission had already accorded in principle approval to PPA. The Commission, in its letter dt.13.7.06, required

the Petitioner to inform the progress made by the Respondent in achieving financial closure and actual start of work. The Petitioner, in its letter dt.693/GM/PPA/Rosa dt.27.7.06 addressed to the Respondent and copy to Secretary, UPERC, conveyed that there had not been any positive development in respect of financial closure and signing of fuel supply agreement even after the expiry of schedule specified by UPERC. In another letter no.733/GM/PPA/D-3/Cogen1 dt.4.8.06 written in response to UPERC letter dt.13.7.06, the Petitioner informed that regular persuasion was being made with the developer for achieving the timelines specified by the Commission in Order dt.2.2.06 and the response of the Respondent in that matter was still awaited. It can not be presumed that all of a sudden on 27.10.06, the Respondent realized that impending approval of PPA was not allowing it to achieve financial closure and to start work at site because wake up calls had already been made by the Petitioner, through various letters mentioned in the said letter dt.27.7.06, which of course remained unanswered deliberately. Had that been not true, the Respondent could have approached the Petitioner much earlier with the request as has been made now.

It is evident from the mentioned facts that the Respondent had not been diligent in its endeavor to comply with the Order of the Commission and we could wish to have examined the Respondent for non-compliance. It appears from the affidavit filed by the Petitioner, on 30.10.06, that its interest would not be prejudiced if the time lines for financial closure and COD are made effective from the date of approval of final draft of PPA and therefore in view of this, we put the controversy of non-compliance by the Respondent to rest and approve the draft of final PPA subject to following: that,

(a) the text *'provided that tax on incentives shall not be allowed as an expense and shall not be recovered'* is deleted under definition 'Taxes on Income' under Section 1.1 of Article 1 of draft PPA.

(b) The Commission approved Rs.2641.63 Cr as capital cost of the project as ceiling cost with a foreign debt component limited to US$296.6 M at exchange rate of Rs.45.5/US$ and no foreign equity. It is observed, that in *'Explanation-3'* under definition 'Capital Cost' under Section 1.1 of Article 1, the capital cost of the project is indicated as Rs.12923 M plus US$ 296.6 M without specifying, whether the foreign component is debt or not. In absence of such qualification, the Commission considers that total expenditure in the capital cost in foreign currency shall be limited to US$ 296.6 M (not being in the nature of debt) which

means that the foreign component of debt in the capital cost shall be nil. The said provision under said *'Explanation-3'* shall accordingly be modified and to this extent order dt.2.2.06 stands modified.

(c) The text *'Rosa's internal requirement for electrical energy for its operation of the station'* in section 6.1 of Article 6 is not inconformity with the mutual agreement, as recorded at point 2 of order dt.2.2.06, between the parties in respect to auxiliary consumption. It may be suitable replaced.

The parties to the case shall note that in case of controversy, if any, as to any provision of the Agreement, the order dt. 2.2.06 read with this order shall prevail. However in view of the submissions made by the Petitioner in application filed on 30.10.06, the Commission may consider change in timelines for financial closure and commissioning of units subject to proper justification shown in that regard.

A copy of the signed PPA shall be sent for information of the Commission.

The petition is disposed of.

(R.D. Gupta)
Member

(P.N. Pathak)
Member

(Vijoy Kumar)
Chairman

Lucknow; Dated : 1st Nov, 2006

U.P. ELECTRICITY REGULATORY COMMISSION

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

Petition No.409/2006
in petition No. 306/06

IN THE MATTER OF:- Review of Order dt. 2.2.06 passed in Petition no.306/06 filed by UPPCL in the matter of Approval of Power Purchase Agreement signed with Rosa Power Company Ltd. for purchase of 600 MW power.

AND

IN THE MATTER OF:

M/s Rosa Power Supply Company
(Through Ashwani Kumar, Director)
14-A/5, Park Raod,
Lucknow.

: Petitioner

V/s

UP Power Corporation Ltd.
14, Ashok Marg,
Lucknow

: Respondent

The following were present:

1. Sri. Ashwani Kumar, Director, M/s Rosa Power Supply Company
2. Sri. Ishwar Shandilya, M/s Rosa Power Supply Company
3. Sri. Vibhav Agarwal, M/s Rosa Power Supply Company
4. Sri. Sumeet Notani, RPSCL
5. Sri. S.K Agarwal, Director (Finance), UPPCL
6. Sri. S.N Dubey, Chief Engineer (PPA), UPPCL
7. Sri. S.P Pandey, EE (PPA), UPPCL

ORDER
(Date of hearing 7.11.06).

(1) The Petitioner has stated in the petition that M/s Reliance Energy Generation Ltd. has acquired majority shareholding in Rosa Power Supply Company Ltd. from M/s Aditya Birla Power Company Ltd. on 1.11.06 and shall abide by the project completion cost of Rs.2641.63 Cr. as approved by the Commission. The petitioner has prayed that the date of commercial date of operation of unit no.1 & 2 might

made to take effect from the date of taking over instead of 2.2.06, the date of order passed in petition no, 306/06.

(2) The representative of the Petitioner has prayed to allow the petition and permit changes along with the address of registered office in the PPA. Sri. S.K Agarwal, Director (Finance) has submitted on behalf of the Respondent that Reliance Energy Generation Ltd. (REGL) has taken over the management of the Petitioner company by acquiring majority shares and informed that the previous management of the Petitioner Company had not made any progress in the construction of the project and loss of time could not be compensated by the new management. Sri. Agarwal has also prayed that the date of Commissioning of units might be changed to take effect from the date of taking over of the Petitioner Company by the new management. Sri. Agarwal has submitted further that the new management of the Petitioner Company has requested for change in definition of *'affiliate'* as requested, vide letter dt.2.11.06 taken on record in this matter. The parties to PPA, present in the hearing, were asked to propose the measures, including commercial disincentives, to be taken by the Commission so that change of management does not hamper with the development of the project and scheduled commissioning date undermining the interest of the State and consumers. Representative of the Petitioner has submitted that REGL is a subsidiary company of Reliance Energy Ltd. who has wide experience in power business since 1972 and it is not likely that it would fall short of its commitments. Sri. Agarwal on behalf of the Respondent has submitted that the financial closure of the company is in the advance stage and all clearances available as such there is no chance of further delay. It was felt during discussion, that it was necessary to have necessary control, in such circumstances of deliberate delay, to ensure that accrued benefits from the project see the light of the day and are not marred by disinterests of the developer, particularly in Regulatory regime. The Commission proposed the parties to petition to agree that the management of the Petitioner company should not be subject to change without prior approval of the Commission till the Commissioning of the project andthe Commission shall not approve the project cost to include interest accrued on investments prior to 2.2.06 for the period between 2.2.06 and 1.11.06 as well as any

ELECTRICITY REGULATORY COMMISSION

POWER SUPPLY COMPANY LIMITED LUCKNOW

expenses between 2.2.06 to 1.11.06 that were not committed prior to 2.2.06. . The Petitioner has agreedthat the change in the management, if any, till the commissioning of the project, shall be subject to approval of the Commission and prayed that change in management within the affiliate companies of M/s Reliance Energy Ltd. might be permitted. The Representative of the Respondent also agreed to the proposal. Sri. Agarwal, Director (Finance), UPPCL also prayed not to allow tax on incentive in the tariff .

(3) The Commission required the UPPCL in its letter dt.13.7.06 to inform the progress made in the project. UPPCL subsequently informed in letter dt.27.7.06 that there was no positive development in respect to financial closure or signing of fuel supply agreements. In the correspondence dated 4.8.06, UPPCL apprised of the pursuance being with the developer. The project has already been delayed by eight months and UPPCL, being the beneficiary of the project, could have preempted this delay to a fair extent by bringing the material facts much before instead of waiting till 1.11.06. Constraints have been developed by the parties to the agreement before the Commission to choose either late execution of the project or fresh negotiation of PPA ignoring the non-compliance of order by the previous management of the Petitioner Company. We are convinced that adequate safeguards must be exercised in execution of the project so that interests of the distribution licensee and consumer are not made hostage ~~change~~ in management change. Therefore, the management of the Petitioner Company shall not be subject to change in any manner without prior approval of the Commission and the Petitioner shall furnish a written and unconditional undertaking on an affidavit as agreed during hearing. Tax on incentives has already been approved being income from the core business as such no consideration is required at this stage. The new management has agreed to execute the project during the period specified for commissioning on the cost approved by the Commission. Therefore, in the public interest, the Commission agrees to allow the prayer of the Petitioner subject to:

(i) the capital cost of the project not exceeding Rs.2641.63 Cr. and shall be a ceiling cost for the purpose of determination of tariff vide order dated 2.2.06 read with 1.11.06.

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ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(ii) the date of COD for first unit not being beyond 41 months and second unit within 44 months reckoned from 1st Nov,06, the date of taking over of management by REGL.

(iii) change in the definition of affiliate as proposed in letter dt.2.11.06, addressed to Chairman, UPPCL by the Petitioner Company.

(iv) change in management within the affiliated companies of REGL is allowed.

(v) change in ownership and address of the registered office.

(vi) the interest on investment made prior to 2.2.06 shall not be considered for the purpose of the IDC in capital cost of the project for the period between 2.2.06 and 1.11.06.

(vii) expenses made between 2.2.06 and 1.11.06 that were not committed prior to 2.2.06 shall not be taken in the project cost.

The PPA approved by order dt.1.11.06 shall be suitably modified accordingly and final PPA duly signed by parties sent for information.

(4) The petition is disposed of.

(R.D. Gupta)
Member

(P.N. Pathak)
Member

(Vijoy Kumar)
Chairman

Lucknow; Dated: 8th Nov 2006

ANNEXURE P/2



उत्तर प्रदेश UTTAR PRADESH AA 147662

Supplemental Power Purchase Agreement

THIS SUPPLEMENTAL POWER PURCHASE AGREEMENT (this "Agreement") entered into on the September 11, 2009 at Lucknow, between:-

Uttar Pradesh Power Corporation Limited, a Company registered under the Companies Act, 1956, having its Registered office at 14, Ashok Marg, Shakti Bhawan, Lucknow 226-001 Uttar Pradesh , India (hereinafter referred to as the "UPPCL" which expression shall, unless repugnant to the context or meaning thereof, include its legal successors, permitted assigns and legal representatives) of the **FIRST PART;**

AND

Rosa Power Supply Company Limited, a company incorporated under the Companies Act, 1956, being a generating company within the meaning of section 2(28) of the Electricity Act, 2003 having its Registered office at Administrative Block, P.O Rosar Kothi, Hardoi Road, Shahjahanpur 242 401, (hereinafter referred to as "ROSA" or the "Company"), which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and assigns of the **SECOND PART**;

(Each of the parties of the **FIRST PART** and **SECOND PART** are individually referred to as a "Party" and collectively as the "Parties").

C.E. (P.P.A.)
U. P. P. C. L.
Shakti Bhawan Extn
Lucknow.

ROSA POWER SUPPLY CO. LTD. LUCKNOW

WHEREAS:

A. ROSA had proposed to set up 567 MW coal fired thermal power generation station at Rosa, District Shahjahanpur in the state of Uttar Pradesh on the basis of a Memorandum of Understanding (MOU) between the promoters of the Company and the Government of Uttar Pradesh dated 17.11.1993 and signed a power purchase agreement with the then Uttar Pradesh State Electricity Board ('UPSEB') on 27.12.1996 for supply of power, as amended on 24.09.1999.

B. Subsequently, the capacity of the above said thermal power generation station was reconfigured to 600 MW (2x300 MW) and the Company has executed an amended and restated Power Purchase Agreement on 12.11.2006 with Uttar Pradesh Power Corporation Ltd ('UPPCL'), a successor of erstwhile UPSEB and commenced the process of setting up of 600 MW capacity coal fired thermal power generation station.

C. GoUP had agreed to support the development of the said coal fired thermal power generation station and accordingly signed an Implementation Agreement with the Company on 23.02.1999 (hereinafter referred to as "IA") and furnished a Guarantee dated 29.11.1999 towards the performance of UPSEB of its payment obligations under the power purchase agreement dated 24.09.1999 which Guarantee continues to remain in force.

D. GoUP had further agreed to support the development of the said coal fired thermal power generation station by extending benefits of U.P Power Policy 2003 (as amended) and Industrial Policy in addition to the promotional support provided in terms of the IA (which provided for Guarantee by GoUP towards the payment obligations of UPPCL under the Power Purchase Agreement dated 12.11.2006 and expediting all clearances /sanctions required for the Project) by Supplemental Implementation Agreement dated 12.11.2006 (hereinafter called "SIA").

E. ROSA came up with a proposal to increase the capacity of the said coal fired thermal power generation station by adding additional 600 MW (Unit III and Unit IV of 300 MW each) which has been approved by GoUP vide letter dated 01.12.2006 with the condition that ROSA shall complete 600 MW project as per the schedule fixed by the UPERC and for additional capacity ROSA shall obtain necessary approvals from the UPERC, so that the total capacity of the said coal fired thermal power generation station is 1200 MW (hereinafter referred to as the said "Project").

C.E. (PP)
U.P.P.C.L.
Shakti Bhawan Extn
Lucknow.

F. In addition to 600 MW capacity from the Unit I and Unit II of the Project, the Company proposes to supply/ sell power to the extent of 50% of Net Electrical Output subject to the maximum of 150 MW capacity each from Unit III & Unit IV (aggregating to 300 MW) of the Project to UPPCL or its nominees on the terms and condition to be determined by the UPERC.

G. UPPCL has accepted the above proposal of the Company to purchase 300 MW capacity from Stage II of the Project which the Company intends to develop and for this purpose the Parties have decided to execute these presents, being Supplemental Power Purchase Agreement to the Amended and Restated Power Purchase Agreement dated 12.11.2006 in order to reflect the above understanding reached by the Parties.

NOW, THEREFORE, in view of the foregoing premises and in consideration of the mutual covenants and agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the UPPCL and ROSA entered into this Supplemental Power Purchase Agreement as follows:

1. Definitions

Common Facilities shall mean the facilities setout as Common Facilities in Schedule IA of this Agreement.

Contracted Capacity shall mean 150 MW capacity each from Unit III and Unit IV.

UPERC Approval Date for Stage II shall mean 15.06.2009 which is the date of the approval of this Agreement by UPERC order (enclosed as Schedule III A)

Effective Date shall mean the date of signing of this Agreement;

PPA shall mean the Amended and Restated Power Purchase Agreement dated 12.11.2006 and where the context admits shall mean to include and to be read with this Agreement.

Scheduled Unit III Commercial Operation Date ("SCOD for Unit III") shall mean the date 31.03.2012 subject to the extension of time by UPERC or due to Force Majeure Events

C.E. (P.P.A.)
U.P.P.C.L.
Shakti Bhawan Extn.
Lucknow.

Scheduled Unit IV Commercial Operation Date ("SCOD for Unit IV") shall mean the date 31.07.2012 subject to the extension of time by UPERC or due to Force Majeure Events;

Stage I shall mean two Units of 300 MW each being distinguished as Unit I and Unit II, as described in Schedule I of the PPA;

Stage II shall mean two Units of 300 MW each being distinguished as Unit III and Unit IV, as described in Schedule I A;

Supplemental Power Purchase Agreement shall mean this Agreement;

Unit III Commercial Operation Date ("Unit III COD") shall mean the Commercial Operation Date of Unit III.

Unit IV Commercial Operation Date ("Unit IV COD") shall mean the Commercial Operation Date of Unit IV.

2. Interpretations

2.1. This Agreement shall form part of the PPA in so far as the sale by Rosa and purchase by UPPCL of the Capacity and Energy from Stage II is concerned and all terms and conditions contained in the PPA and not in manner inconsistent with the terms and conditions hereof shall apply, mutatis mutandis to Stage II also and shall be deemed to have been included herein.

2.2. The capitalized terms used in this Agreement but not defined herein shall have the same meaning as stated in the PPA with such appropriate modifications as may be required having regard to Stage II.

2.3. The PPA shall continue to be effective in respect of the Station (comprising Unit I and Unit II) and Stage II (comprising Unit III & Unit IV) shall be governed by the PPA and this Agreement

2.4. This Agreement shall be read in addition to the PPA. However, in the event of any inconsistency between this Agreement and the PPA, this Agreement shall prevail.

3. Term of this Agreement

3.1. This Agreement shall come into effect from the Effective Date and unless terminated earlier in accordance with this Agreement shall be valid for a period of 25 years from the Unit IV COD.

C.E. (P.P.A.)
U.P.P.C.L.
Shakti Bhawan Extn.
Lucknow.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

4. Construction of Stage II

4.1. ROSA shall be responsible for the design, supply, construction, commissioning, testing and operation and warranty of:

a) the Unit III & Unit IV and their supporting facilities;

b) the 400 KV substation switchyard for Stage II and electrical facilities on the Project side of the Interconnection Point;

c) Internal Interconnection Facilities of Stage II.

5. Sale and Purchase of Capacity and Energy

5.1. In addition to the delivery of power in accordance with the PPA, during the term of this Agreement Rosa shall sell and deliver and UPPCL shall purchase the 50% of Net Electrical Output, not exceeding the Contracted Capacity, from Unit III and Unit IV in accordance with the Dispatch Instructions and subject to technical parameters as described in Schedule 5 of the PPA. It is hereby clarified that in addition to 100% of Net Electrical Output of Unit I and Unit II, 50% of Net Electrical Output, not exceeding the Contracted Capacity, from Unit III and Unit IV shall be dedicated to UPPCL.

6. LIQUIDATED DAMAGES DUE TO ROSA DEFAULT

6.1. Liquidated damages due to delay in commissioning and capacity short fall penalty shall be as per Clause 5.8 (a), (b) and (c) of the PPA.

7. Interconnection and Transmission

7.1. UPPCL shall at its own expense complete External Interconnection Facilities in accordance with specifications as outlined in Schedule II A, including connections to the 400 KV systems of UPPCL in order to evacuate the Contracted Capacity under this Agreement.

7.2. UPPCL shall complete construction of the External Interconnection Facilities Ninety (90) days prior to the Scheduled Synchronisation Date of Unit III or any extension thereto due to any Force Majeure Event in accordance with the Construction Schedule of Unit III.

7.3. In the event of failure of UPPCL to complete the construction of the External Interconnection Facilities for Unit III within the said period of 90 days and to evacuate power generated from Unit III leading to Rosa backing down the generation from Unit III, UPPCL shall be liable to Rosa in accordance with Sections 9.5 (a) and 9.5 (b) of the PPA mutatis mutandis for Unit III. If the construction of the External Interconnection Facilities is delayed beyond COD of Unit IV, then provisions of Sections 9.5 (a) and 9.5 (b) of the PPA shall apply mutatis mutandis for Unit IV also.

C.E. (T.P.I.)
U. P. P. C. L.
Shakti Bhawan Extn.
Lucknow.

ROSA POWER SUPPLY COMPANY LIMITED
LUCKNOW

8. Capital Cost of Stage II

8.1. UPERC has vide order dated 15.06.2009 approved the Capital Cost of Stage II of the Project at **Rs. 3098.60 crores** (Rupees Three thousand ninety eight crores and sixty lakhs only). However, it shall be subject to prudence check at the time of determination of tariff.

8.2. All financial parameters in respect of determination of Fixed Charges for Contracted Capacity and the Net Electrical Output of Stage II including debt/ equity ratio, interest on debt, shall be in accordance with Financing Package approved by the UPERC.

8.3. Not less than 90 days prior to the Scheduled Synchronisation Date of Unit III, UPPCL shall extend the cover under existing Escrow Account by increasing the number of specified distribution sections of UPPCL or its distribution companies to maintain funds in the Escrow Account equivalent to 1.25 times monthly tariff amount based on Eighty Five per cent (85%) Plant Load Factor of Unit III and Unit IV and increase the face value of Letter of Credit by an amount equivalent to average monthly billing amount based on Eighty Five Per cent (85%) Plant Load Factor of Unit III and Unit IV.

9. Tariff, Billing, Payment and Change in Law

9.1. The terms & conditions of tariff approved by the UPERC for Stage I shall also apply to Stage II.

9.2. UPPCL shall pay Rosa Tariff towards supply of the Contracted Capacity and the Net Electrical Output of Stage II mutatis mutandis as set out in Article 12 of the PPA and as may be determined by UPERC through notifications of applicable guidelines as formulated by UPERC from time to time.

9.3. Any benefit or incentive received by Rosa consequent to grant of Mega Power status to the Project shall be pass through in Tariff to UPPCL.

10. Infirm Power

10.1. From the Synchronisation Date of each Unit III and Unit IV to its Commercial Operation Date, UPPCL shall have the option to purchase upto 50% (Fifty percent) Infirm Power generated by these Units. The payment for the purchase of such Infirm Power shall be made by UPPCL to Rosa in accordance with the prevailing UPERC (Terms and Conditions of Tariff) Regulations.

11. Startup Power

11.1. Normal Start-up and reserve stand-by power for the Stage II shall be provided by the ROSA Station Transformer. If required and requested by Rosa, UPPCL shall make available Start-up Power One Hundred and Eighty (180) days prior to the Scheduled Synchronisation Date for Unit III or any extension thereto due to any Force Majeure Event in accordance with the Construction Schedule of Stage II.

CE (PPA)
U. P. P. C. L.
Shakti Bhawan Extn.
Lucknow.

6

ROSA POWER SUPPLY COMPANY LUCKNOW

11.2. The payment for the purchase of such Start-up Power shall be made by Rosa to UPPCL in accordance with the prevailing UPERC approved tariff.

12. Common Facilities

12.1. Rosa at no time shall deprive Stage II of the Project of any shared or Common Facilities or resources and at all times give preference to Stage I over Stage II in matters of usage of the Common Facilities.

12.2. Parties shall follow the UPERC orders on sharing of capital cost of common facilities between Stage I and Stage II

12.3. On commissioning of Stage II, the capital cost of common facilities accounted for Stage I shall be shared by Stage I & Stage II in equal proportion.

13. Termination

13.1. In case of Event of Default mentioned in the PPA occurs, either party shall have the right to terminate this Agreement without liability on either Party. However, the rights and obligations which subsist as on the date of termination shall survive such termination.

13.2. The termination of this Agreement shall not automatically bring the termination of the PPA.

13.3. In no event, UPPCL shall have the right to require Rosa to sell Stage II of the Project.

13.4. In the event of termination of the PPA followed by purchase of the Stage I by UPPCL or any third party, the purchaser shall enter into a "Common Services Sharing Agreement" with Rosa for the uninterrupted operation of Stage II after obtaining approval from UPERC. Pending grant of such approval by UPERC, UPPCL shall continue to provide common facilities including supply of water which are required for uninterrupted operation of Stage II of the Project.

14. Schedules

This Agreement shall be complete with the following Schedules

a) Schedule IA ; Description of Stage II
b) Schedule II A: Transmission and Interconnection
c) Schedule III A: UPERC Order approving this Agreement

C.E. (P.P.A.)
U.P.P.C.L.
Shakti Bhawan Extn.
Lucknow.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

7

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement executed as of the day, month and year first above written in the presence of the witness who have signed in their presence and in the presence of each other.

Signed and delivered by UP Power Corporation Limited **(the First Part)** by the hand of Shri R.K.Johar, Chief Engineer, PPA

11/9/07

Witness:

(S.P PANDEY)
LE, PPA

Signed and delivered by Rosa Power Supply Co Ltd **(the Second Part)** by the hand of Shri Ganesan Amudhan, Senior Vice President & Project Head

11/09/07

Witness:

SUMEET NOTANI
SENIOR MANAGER
ROSA POWER SUPPLY Co LTD

SCHEDULE – I A

DESCRIPTION OF STAGE II

1. The Description of the Stage II in this Schedule IA contain a general description of the design of the Stage II as envisaged at the date of execution of this Agreement. The Parties acknowledge that changes may be necessary and/or required on the basis of further site investigations and during the development of the detailed design, construction and installation of the Stage II and its components and Rosa reserves the right to make any such changes in order to meet its overall objectives under the PPA and this Agreement. To the extent there is any conflict between the provisions of the Schedule and the Agreement, the provisions of the Agreement shall prevail.

2. Introduction

   (a) The Stage II will comprise two 300 MW (measured at the generator terminals) coal-fired thermal power plant units (Marked as Unit III and Unit IV) located at Rosa in the district of Shahjahanpur, in the State of Uttar Pradesh, India. 50% of Net Electrical Output, not exceeding the Contracted Capacity, from Unit III and Unit IV shall be dedicated to UPPCL.

   (b) Stage II is the expansion stage of Rosa Power Project and will be set up on the land already available for setting up of Stage I.

   (c) The Stage II will, inert alia, comprise the facilities including:

   (i) Turbine Island containing two steam turbine generators with auxiliaries
   (ii) Boiler Island containing two steam generating units with auxiliaries
   (iii) Plant water facilities including river water pumps
   (iv) Waste water treatment and disposal
   (v) Control Complex
   (vi) Coal/Fuel facility including waste disposal facility
   (vii) Building and Support facilities
   (viii) Electrical System and Switchyard, and
   (ix) Part of Housing Colony

   (d) Coal will be the primary fuel for the Stage II, which will be supplied by Central Coalfields Limited or other coal supplier. Heavy Fuel Oil (Low Sulphur Heavy Stock/ Residual Fuel Oil) will be used as the secondary fuel for start-up and flame stabilisation at lower load. The ignition fuel will be Light Diesel Oil.

   (e) Water for the consumptive use of the Stage will be supplied from the river Garrah flowing adjacent within 1 Km. from the site.

   (f) Fly ash generated by the Stage II will be conveyed pneumatically and removed dry for commercial use or conditioned with recycled water and transported through ash pipeline in the form of lean slurry pumping to the ash disposal area site about 4.5 KM away. Bottom ash will also be transported to the ash disposal site in similar manner.

   (g) The electric power generated at 20 KV will be stepped up to 400 KV in case of Stage II comprising of Unit IV and made available at the Stage II switchyard from where UPPCL shall evacuate the power through the various 400 KV transmission lines to be constructed and terminated at the Stage II switchyard by UPPCL. Power for the Stage II start-up will be brought in through one of these 400 KV lines.

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3. Turbine Island

(a) Each of the two steam turbine generators will be an indoor type tandem compound fully condensing turbine, single reheat, designed for operating steam conditions of 166 ata and 538 °C. The gross output of each Unit at the generator terminals at maximum continuous rating (MCR) will be 300 MW.

(b) The associated three phase, 50 Hz generator will be hydrogen / water-hydrogen cooled, rated at 370 MVA at 0.85 power factor.

(c) Each turbine generator will be provided with an automatic run-up and shut-down system complete with supervising instruments, seal oil unit, hydrogen system, controls and auxiliaries.

(d) The condensate and feed water heating system for each unit will include one surface condenser, two 100% capacity condensate extraction pumps, six / seven stages of feed water heating, three 50% capacity boiler feed pumps and all auxiliaries.

(e) One multi-cell mechanical draft / natural draft cooling tower constructed of fire-proof material per unit will be used to remove the latent heat energy from the condenser shell.

4. Boiler Island

(a) Each of two steam generating units shall be capable of delivering 1036 tph of steam at 175 ata and 541 °C. at the superheater outlet at MCR. Each steam generating unit will be drum type, two pass, balanced draft, single reheat design and will have the necessary auxiliaries, including:

(i) Fuel preparation equipment consisting of motor driven heavy duty pulverisers, gravimetric coal feeders, two primary air fans.
(ii) Heavy fuel oil burners
(iii) Steam sootblowers
(iv) Tri-sector type regenerative air preheaters with water washing devices.
(v) Steam coil air preheaters
(vi) Draft plant consisting of Two 60% capacity each of ID and FD and PA fans
(vii) Full complement of boiler valves, drains, piping and instrumentation
(viii) Chemical feed systems
(ix) Electrostatic Precipitator
(x) Bottom ash and mill rejects handling systems
(xi) Fly ash handling system

5. Plant Water Facilities

(a) The water for the operation will be drawn from the river Garrah flowing within 1 KM west of the site through a river water abstraction facility to be created specially for the Project.

(b) The water pre-treatment system will provide cooling tower make-up, service water, input to the demineralised water plant, fire protection water, potable water for the plant and housing colony etc. The system, to supply the treated water for two units shall be sized to meet the total water requirements of the plant and the housing colony

(c) A De-Mineralised Water Plant (DMW Plant) consisting of two 100% capacity streams to provide demineralised water for boiler make-up, auxiliary cooling circuit make-up, hydrogen generation plant, etc. will be provided.

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6. Waste Water Treatment

(a) The waste water treatment system will treat the waste water from the DMW Plant regeneration, clariflocculator, cooling tower and boiler blowdowns, boiler/power house area and coal/ash handling plant area run-offs, sewage water etc., before releasing it to the natural stream, in order to ensure full compliance with CPCB/UPPCB norms. Storm water drainage shall be separately routed for the final discharge to the natural stream. Care will be taken to minimise the consumptive water requirement and surface water release by recirculating effluent from one system as input to another to the extent possible.

7. Control Complex

(a) A single centralised control room will be provided to control and monitor the Stage II. The control and instrumentation systems will provide integrated operation of the Stage II by means of microprocessor based distributed digital control system and instrumentation. The systems will be designed for safe and reliable performance and ease of operation and maintenance.

(b) The local control systems with stand alone equipment will utilise similar technology and will be linked to the central control system for centralised monitoring and alarm purposes.

8. Coal/ Fuel Facility

(a) Coal Delivery

(i) The annual coal consumption for the Stage is anticipated to be 3.0 MTPA of coal based on the Gross Calorific Value of 4000 kCal/kg (Grade E) and operations at 85% PLF.

(ii) A coal linkage for supply of 2.222 MTPA has been accorded to Stage II. Coal will be supplied by Central Coalfields Limited from its coal block/ mines in Jharkhand. Shortfall quantity will be arranged by Rosa either through imports or through e-auction of Coal India Limited.

(iii) Coal will be brought in through the existing rail system by Indian Railways from Jharkhand approximately 870 KM rail distance away.

(b) Coal Handling

(i) The Stage II will have a two stream conveyor system along with screens, crushers, magnetic separators, automatic weighing and sampling systems up to the boiler bunkers for feeding sized coal. There will also be a stockyard for about 45 days storage of coal with Stacker Reclaimer, emergency reclaim hoppers, etc. Each stream of the coal handling system will be of 1000 tph capacity.

(c) Heavy Fuel Oil Handling

(i) Heavy Fuel oil will be used for start-up as well as for support firing at lower loads. This will be brought in by road tankers and unloaded to twin fuel oil storage tanks.

(ii) The Fuel oil transfer system will be complete with fuel transfer pumps, strip heating, day tanks and delivery system for each of the two units.

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ROSA POWER SUPPLY CO. LTD. LUCKNOW

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9. Building and Support Facilities

(a) The boilers will be semi-open type. The penthouse, drum and burner level floors will be covered by metal cladding. Rest of the passages and walkways will be open to the elements. Chequered plates and anti-skid gratings will be provided excepting in the areas near the burners, which will have RCC floors.

(b) An RCC dual-flue Chimney stack of 275 meters height will be provided for both the boilers.

(c) The turbine building will be an all-steel frame structure with roof truss construction. The operating floors will be reinforced concrete slabs supported on permanent metal decking and steel framing.

(d) In addition, the Stage will, inter alia, include following buildings and structures :-

(i) Switchyard Control Room
(ii) Maintenance Building
(iii) Water Treatment Building
(iv) Fire/Service Water Pump house
(v) Diesel Generator Building
(vi) Warehouses
(vii) Storage Tanks, etc.

10. Electrical System and Switchyard

(a) Each Generator will have its own 355 MVA, 20/400 KV, three phase, 50 Hz, OFAF main output transformer (generator transformer) which will transfer power to the 400 KV section of the Stage II switchyard. Isolated phase bus – ducts will connect the generators to the LV side of their respective generator transformers (GTs) and overhead line taps will connect the HV side of the GTs to the switchyard.

(b) The unit auxiliary power system at each voltage level will have split bus, dual feed configuration, to be fed from the two Unit Auxiliary Transformers directly connected to generator output buses.

(c) The common systems will normally receive power from the two station transformers (STs) connected to the 220 KV bus at the Stage II switchyard.

(d) The station electrical system will consist of the 6.6 KV, 415 V switchgear and other associated equipment to provide power to the plant auxiliary systems. It will also have a DC power source of different voltage levels for emergency services, C & I power supply etc.

11. Housing Colony

(a) A housing colony for staff and officers of the Project will be built about 1 KM from the Project site. It will have service and recreational facilities apart from residential blocks and will be surrounded by a green belt.

12. Common Facilities between Stage I and Stage II

(a) Parties shall follow the UPERC orders on common facilities between Stage I and Stage.

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SCHEDULE – II A

TRANSMISSION AND INTERCONNECTION FACILITIES

PART A – UPPCL'S RESPONSIBILITY

The UPPCL Transmission System which will be used to evacuate Available Energy from Unit III and Unit IV of the Stage II and shall include the following power system hardware.

2 – Double Circuit 400 KV LILO connecting Unnao - Bareilly line

UPPCL shall build the above 2 nos., transmission lines and tie into the Stage II's 400 KV switchyard outgoing gantry.

Start-up power will be imported from the 400 KV UPPCL Transmission System feeding the 400 KV station transformers. The Start-up power shall be made available to the Stage II on a continuous basis, whenever it is needed.

UPPCL shall be responsible for supplying and providing all materials, labour and equipment to complete the work from and after the ROSA 400 KV switchyard outgoing gantry.

PART B – ROSA's RESPONSIBILITY

ROSA shall be responsible for supplying and providing all material, labour and equipment to complete the work of its 400 KV switchyard up to the terminal points at the switchyard outgoing gantry (the "Internal Connection Facilities").

The Stage II includes the 400 KV switchyard that allows evacuation of the Available Energy via 2 (two) 400 KV transmission lines identified above plus space only for terminating two more 400 KV lines in future. Included are the 400 KV circuit breakers, disconnecting switches, station and generator transformers, all protection, control and metering associated with the 400 KV supply lines.

The Stage II shall have stand-by power source in the form of emergency DG sets for safe shut-down of the Stage II in case of a system blackout. It should be clearly understood that the capacity of this stand-by power source will not be adequate for start-up of the Stage II after a trip-out or stoppage of generation and UPPCL will be responsible for providing the start-up power as and when it is required by the Stage II, failure in which shall be treated as inability on the part of UPPCL to evacuate power and Rosa will be eligible for getting Deemed Energy benefits. However in the event of grid failure or transmission line outage, the UPPCL shall not be liable for any deemed generation.

PART C – METERING POINTS AND DELIVERY POINTS

Metering for the power generation and power evacuation at the generator terminal side and at each of the 2 (two) nos. outgoing points, which shall be the Delivery Points, shall be provided. Import of power shall also be effected through any of these two transmission lines and a set of import and export meters will be provided at each of these points to facilitate proper recording.

PART D – INTERCONNECTION PROCEDURES

To ensure that the Stage II 400 KV switchyard together with the transmission facilities will be in service at the agreed time, it shall be the responsibility of both ROSA and UPPCL to set up

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interconnection procedures. These procedures shall be drawn up and executed by a coordinating team with representatives from both parties.

The Coordinating Team shall be responsible for the following:-

a) Ensure that all work required for the proper design, construction, commissioning and testing of Stage II switchyard and UPPCL's transmission facilities including all technical information, design criteria co-ordination and studies are completed according to the ROSA's Construction Schedule.

b) Ensure appropriate co-ordination of all construction activities at the Interconnection Points :

c) Ensure that the review of relay settings and installation and calibration of the metering system is completed on schedule;

d) Co-ordinate the commissioning activities to ensure that all necessary tests of the protection, control and communication system are completed to mutual satisfaction.

e) Ensure compliance with IE Rules and inspection requirements.

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ROSA POWER SUPPLY COMPANY LIMITED
LUCKNOW

SCHEDULE – III A

UPERC ORDER DATED 15.06.2009

C.E. (P.P.)
U.P.P.C.L.
Shakti Bhawan Extn.
Lucknow

Uttar Pradesh Electricity Regulatory Commission

Kisan Mandi Bhawan, II Floor, Gomti Nagar, Lucknow-226010 Phone 2720426 Fax 2720423 E-mail secretary@uperc.org

Ref: UPERC/D(G)/Secy/2009- 0566
Date: 16.6.09

1. Managing Director
UP Power Corporation Ltd.
Shakti Bhawan
14, Ashok Marg,
Lucknow

2. M/s Rosa Power Supply Company
519, Kasmanda Regent Apartment,
2, Park Road, Hazarat Ganj,
Lucknow

Sub: Approval of Supplementary Power Purchase Agreement and project cost of 2X300 MW Rosa Power Project Stage II

Sir,

Kindly find enclosed herewith Order dated 15.6.09 passed in Pet.no.610/09 for your information.

Yours faithfully,

(A.K.Srivastava)
Secretary

U. P. P. C. L.
Shakti Bhawan Extn.
Lucknow.

Encl: A/a

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

BEFORE THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION
LUCKNOW

Petition No.610/2009

IN THE MATTER OF: Approval of Supplementary Power Purchase Agreement and project cost of 2X300 MW Rosa Power Project Stage II

AND

IN THE MATTER OF:

M/s Rosa Power Supply Company
(Through Vibhav Agarwal)
519, Kasmanda Regent Apartment,
2, Park Road, Hazarat Ganj,
Lucknow
: Petitioner

V/s

UP Power Corporation Ltd.
Shakti Bahwan
14, Ashok Marg,
Lucknow
: Respondent

The following were present:

1. Sri. S.K Agarwal, Director(F), UPPCL
2. Sri. G. Amudhan, M/s Rosa Power Supply Company
3. Sri. Vibhav Agarwal, M/s Rosa Power Supply Company
4. Sri. Sumeet Notani, M/s Rosa Power Supply Company
5. Sri.S.N Dubey, CE, UPPCL
6. Sri. S.P Pandey, EE (PPA), UPPCL

ORDER
(Date of hearing 10.6.09)

1. The Petitioner has filed this petition for approval of a Supplementary Power Purchase Agreement for sale of 300 MW power to the Respondent from unit IV of Rosa Power Project Stage II. The approval of cost of the said project, Rs.3098.6 Cr., has also been sought.
2. Under section 86(1)(b) of the Electricity Act,03 and Regulation 126 of UPERC (Conduct of Business Rules)Regulations,2004, a licensee is required to seek approval of power purchase agreement including the price at which the electricity shall be procured and the procurement process. As the petition was filed by a

CE. (P.P.A.)
U.P. P. C. Ltd.
Shakti Bhawan Extn.
Lucknow.

15/6

(b) the financial closure must be achieved as early as possible, however, the first unit (i.e. unit III) of stage II is scheduled for COD by 31.3.12 and that of second unit (i.e. unit IV) by 31.7.12;

(c) provision for liquidated damages shall be made similar to Stage I project; and

(d) any incentive consequent to grant of mega status to the project shall be pass through in tariff as the petitioner has made an application, as averred in the rejoinder, for grant of mega status.

5. Sri. Vibhav Agarwal submitted on behalf of the Petitioner that the 2X300 MW Stage II project was an expansion project within the meaning of clause 5.1 of Tariff Policy as such the parameters for tariff determination for entire capacity should be uniform. He prayed that the project cost might be approved and the issues related to tariff could be taken up separately.

Regarding cost, Sri S.K Agarwal submitted on behalf of the Respondent that the Petitioner had entered into an EPC contract with SEC and UEEPL for Stage I project with base price applicable as on 6th March, 07 and with a provision that the petitioner could place an order for extension project at the same price. However, the petitioner has agreed for higher price for Stage II project which was not acceptable to the Respondent. Sri. Vaibhav Agarwal replied that after signing contract with SEC and UEEPL, it was agreed between them that a notice to proceed for Stage I would be issued by the Petitioner by 30th April, 07, but due to delay in sanction of loan, notice to proceed was delayed and in the mean time on 27th May, 07, SEC informed the Petitioner that it could not maintain the price offered for Stage I due to appreciation in raw material prices & Chinese Yuan against US$ and withdrew the price offered for Stage II. The petitioner subsequently persuaded SEC who agreed to ~~keep~~ change in price offered for Stage I whereas price for Stage II would be linked to variation in Chinese Yuan and US$. Similarly, the price offered for EPC contract for balance of plant of Stage II was also linked to variation in price on account of steel, labor and coal sale price and indices with Stage I price as base price as on 6th March,07. Sri. Vaibhav Agarwal submitted that the petitioner had negotiated the price with SEC

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Lucknow

operates only where any remedy is not available under power purchase agreement (PPA) signed between them but it is available in the said Regulation. In such event, any party to PPA could approach the Commission. Therefore, the terms & conditions of tariff approved by the Commission for Stage I project shall also apply to Stage II project. It is to clarify that UPERC (Terms & Conditions of Generation Tariff) Regulations,2009 as amended from time to time shall apply On commissioning of stage II project, the capital cost of common facilities accounted for Stage I shall be shared by Stage I & II in equal proportion.

6. Subject to observations made and directions issued above, SPPA and cost of Stage II project are approved. This approval of cost is for comfort to all stakeholders; however, it shall be subject to prudence check at the time of determination of tariff. A final supplementary agreement shall be drawn and a copy be sent to the Commission for information. The Petitioner shall submit compliance of directions issued in respect to cost of Stage II project on an affidavit within 2 months of this order.
7. The petition is disposed of.

(R.D. Gupta)
Member

(P.N. Pathak)
Member

15/6/09
(Rajesh Awasthi)
Chairman

Lucknow; Dated: 15th June, 2009

U.P. ELECTRICITY REGULATORY COMMISSION

U.P.R.V.U.N.L.
Shakti Bhawan Extn.
Lucknow.

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Amendment to Supplemental Power Purchase Agreement

This Amendment to Supplemental Power Purchase Agreement entered into on 15th November 2011 at Lucknow, between:

Uttar Pradesh Power Corporation Limited, a Company registered under the Companies Act, 1956 having its Registered offict at 14, Ashok Marg, Shakti Bhawan, Lucknow 226001 Uttar Pradesh, India (hereinafter referred to as the "UPPCL" which expression shall, unless repugnant to the context or meaning thereof, include its legal successors, permitted assigns and legal representatives) of the **FIRST PART :**

AND

Rosa Power Supply Company Limited, a company incorporated under the Companies Act, 1956, being a generating company within the meaning of section 2(28) of the Electricity Act, 2003 having its registered office at Administrative Block, Hardoi Road, Shahjahanpur 242 401, (hereinafter referred to as "ROSA" or the "Company", which expression shall, unless repugnant to the context of meaning thereof, include its legal successors, permitted assigns and legal representatives) of the **SECOND PART :**

(Each of the parties of the **FIRST PART and SECOND PART** are individually referred to as a "Party" and collectively as the "Parties").

19/11

Ex. C.E. (P.P.A.)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

WHEREAS:

A. UP Power Corporation Limited (UPPCL) is a holding company of their subsidiary DISCOMs namely Poorvanchal Vidyut Vitran Nigam, Madhyanchal Vidyut Vitran Nigam, Paschimanchal Vidyut Vitran Nigam and Dakchinanchal Vidyut Vitran Nigam. The aforesaid DISCOMs in their Board of Directors meeting dated 20.07.2010 have authorized UPPCL to enter into this agreement on their behalf and to do all other relevant and incidental things, as may be required.

B. A Supplemental Power Purchase Agreement (SPPA) dated 11.09.2009 was signed between the Company and UPPCL for purchase of 50% of net electrical output not exceeding the contracted capacity from Unit III and Unit IV of Rosa TPP Stage II (2x300 MW) after approval from UP Electricity Regulatory Commission (UPERC) on 15.06.2009.

C. Subsequently, the Company vide their letter dated 31.05.2011 offered the remaining 300 MW capacity of Rosa TPP Stage II to UPPCL based on similar terms and conditions as that of Rosa TPP Stage I thereby dedicating the entire 1200 MW Capacity of Stage I and Stage II to the State of Uttar Pradesh.

D. Government of Uttar Pradesh vide G.O. dated 09.09.11 has decided to purchase remaining 300 MW capacity offered by the Company on the terms and conditions approved by UPERC and directed to enter into an agreement in the same manner as have been done earlier for 300 MW of Rosa TPP Stage II.

NOW, THEREFORE, in view of the foregoing premises and in consideration of the mutual covenants and agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged and intending to be legally bound hereby, the UPPCL and the Company entered into this **AMENDMENT TO SUPPLEMENTAL PPA** as follows :

1. The "Contracted Capacity" mentioned under Clause 1 : "Definition" of SPPA shall now mean 300 MW capacity each from Unit III & Unit IV.
2. Under Clause 5.1 of Clause 5 : "Sale & Purchase of Capacity and Energy" and at other places of SPPA "50% of net electrical output" wherever mentioned, shall now be modified to "100% of net electrical output".
3. The Clause 10.1 of Clause 10 : "Infirm Power" of SPPA is modified to the extent that UPPCL shall purchase entire infirm power from the date of synchronization of Unit III and IV to its commercial operation in accordance with prevailing UPERC (Terms and Conditions of Tariff) Regulations.
4. The Clause 12 : "Common Facilities" of SPPA is deleted. The entire cost of common facilities shall now be dedicated to the capital cost of Rosa TPP Stage II for the purpose of tariff determination.
5. The Clause 13.3 and 13.4 of SPPA under Clause 13 : "Termination" is deleted.

All other terms and conditions of SPPA dated 11.09.09 shall remain unaltered.

The above Amendment to Supplemental Power Purchase Agreement is subject to the approval of Hon'ble Uttar Pradesh Electricity Regulatory Commission (UPERC). The UPERC order approving this Amendment to Supplemental Power Purchase Agreement shall form part of this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement executed as of the day, month and year first above written in the presence of the witness who have signed in their presence and in the presence of each other.

Signed and delivered by UP Power Corporation Limited **(the First Part)** by the hand of Shri R. K. Johar, Ex Chief Engineer - PPA

Witness: S P Pandey, Superintending Engineer, UPPCL

Signed and delivered by Rosa Power Supply Co. Ltd. (**the Second Part**) by the hand of Shri Vibhav Agarwal, Authorised Signatory

Witness: Sumeet Notani, Authorised Person - RPSCL

Uttar Pradesh Electricity Regulatory Commission

Kisan Mandi Bhawan, II Floor, Gomti Nagar, Lucknow-226010 Phone 2720426 Fax 2720423 E-mail secretary@uperc.org

Ref: UPERC/Secy/D(G)/2011-701
Date: 22nd December, 2011

1. Rosa Power Supply Company Limited (RPSCL)
   Administrative Block, Hardoi Road,
   P.O. Rosar Kothi, Tehsil Sadar,
   Distt. Shahjahanpur, U.P.

2. U.P. Power Corporation Ltd.,
   (through CE, PPA)
   14th Floor, Shakti Bhawan Ext.,
   14, Ashok Marg, Lucknow

Dear Sir,

Please find enclosed herewith copy of the Commission's order dated 22.12.11 in petition no. 773 of 2011 in the matter of Deemed energy verification and payments towards bills raised by RPSCL.

Yours Sincerely,

(A. K. Srivatava)
Secretary

Petition No 773 of 2011

BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Date of Order : 22.12.2011

PRESENT:

1. Hon'ble Shri Rajesh Awasthi, Chairman
2. Hon'ble Shri Shree Ram, Member
3. Hon'ble Smt. Meenakshi Singh, Member

IN THE MATTER OF: Approval of Amendment to Supplemental Power Purchase Agreement (SPPA) for procurement of remaining 300 MW power from RPSCL.

AND

IN THE MATTER OF

Petitioner:

U.P. Power Corporation Ltd.,
(through CE, PPA)
14th Floor, Shakti Bhawan Ext.,
14, Ashok Marg, Lucknow

Respondent:

Rosa Power Supply Company Limited (RPSCL)
Administrative Block, Hardoi Road,
P.O. Rosar Kothi, Tehsil Sadar,
Distt. Shahjahanpur, U.P.

The following were present:

1. Sri R.K. Johar, Ex. CE(PPA), UPPCL
2. Sri S.P. Pandey, SE(PPA), UPPCL
3. Sri Vibhav Agarwal, RPSCL
4. Sri Sumeet Notani, RPSCL

Order

(Date of Hearing 29.11.2011)

1. UPPCL as the holding company of its subsidiary DISCOMs viz. PuVVNL, DVVNL, MVVNL and PaVVNL, has been authorized by all these DISCOMs for procurement of power on their behalf. A decision to this effect has been made by Board of Directors in meetings dated 20.7.2010, 27.7.2010 & 28.7.2010 with respective shares of power purchase as 20% for DVVNL, 30% for PuVVNL, 20% for MVVNL and 30% for PaVVNL.
2. M/s Rosa Power Supply Company Limited (RPSCL) is setting up coal based Thermal Power Project of total 1200 MW (4 x 300 MW) capacity at Rosa District Shahjahanpur, UP. A Power Purchase Agreement (PPA) between UPPCL and RPSCL was signed on 12.11.2006 for 600 MW (2 x 300 MW) Unit-1 and Unit-2 of Phase-1. A Supplemental PPA (SPPA) for additional 300 MW i.e. 50% from Phase-2 (2 X 300 MW) of Unit-3 and Unit–4 was entered on 11.9.2009. The PPAs have been duly approved by the Commission.
3. UPPCL has submitted that subsequently RPSCL offered remaining 300 MW capacity of Phase-2 to them on similar terms and conditions as agreed for additional 300 MW (50%) from Phase-2 under the SPPA. The GoUP vide GO dated 9.9.2011 and 13.10.2011 decided to purchase remaining 300 MW capacity offered by RPSCL and directed them to enter into PPA. The Petitioner has stated that in view of expected synchronization of the Unit-3 on 15th December, 2011, they have signed the PPA with RPSCL on 19th November, 2011 with the provision that the PPA shall be subject to approval of the Commission and the order of the Commission approving the PPA shall form a part of the Agreement.
4. During the hearing, it was clarified by Sri S.P. Pandey, that the Amendment to SPPA has been executed with RPSCL in compliance to GoUP order for purchase of remaining 300 MW power and the power shall be purchased on similar terms and conditions as agreed earlier for additional 300 MW (50%) from Phase-2 under SPPA. He added that following Amendment to SPPA

22/12/11

entered for additional 300 MW (50%) from Phase-2 have been made to accommodate 300 MW capacity of Phase-2.

(1) The "Contracted Capacity" mentioned under Clause 1: "Definition" of SPPA shall now mean 300 MW capacity each from Unit III & Unit IV.

(2) Under Clause 5.1 of Clause 5: "Sale & Purchase of Capacity and Energy" and at other places of SPPA" 50% of net electrical output" wherever mentioned, shall now be modified to "100% of net electrical output".

(3) The Clause 10.1 of Clause 10: "Infirm Power" of SPPA is modified to the extent that UPPCL shall purchase entire infirm power from the date of synchronization of Unit III and IV to its commercial operation in accordance with prevailing UPERC (Terms and Conditions of Tariff) Regulations.

(4) The Clause 12: "Common Facilities" of SPPA is deleted. The entire cost of common facilities shall now be dedicated to the capital cost of Rosa TPP Stage II for the purpose of tariff determination.

(5) The Clause 13.3 and 13.4 of SPPA under Clause 13: "Termination" is deleted.

5. Further, it has also been agreed by UPPCL and RPSCL that except for above amendments all other terms and conditions of SPPA shall remain unchanged.

6. In view of aforesaid, the Commission approves above Amendment to SPPA dated 19.11.2011 except above mentioned clause (4) which shall remain unaltered and be as per SPPA dated 11.09.2009.

7. The petition is disposed of.

(Meenakshi Singh)
Member

(Shree Ram)
Member

22/12/11
(Rajesh Awasthi)
Chairman

Place : Lucknow
Dated: 22.12.2011

 ANNEXURE-P/3

Uttar Pradesh Electricity Regulatory Commission

Lucknow

Petition No. 1578 of 2020

Filed by

ROSA POWER SUPPLY COMPANY LTD. (RPSCL)

IN THE MATTER OF:

APPROVAL OF MULTI YEAR TARIFF FOR 4X300 MW ROSA THERMAL POWER PLANT FOR STAGE I AND STAGE II (FY 2019-20 TO FY 2023-24)

Lucknow

Dated: 16.05.2023

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Petition Nos. 1578 of 2020

BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

Date of Order (.....2023)

Present:

Hon'ble Shri Raj Pratap Singh, Chairman

Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

IN THE MATTER OF: Petition under Regulation 15 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of Multi Year Tariff for the Control Period FY 2019-20 to FY 2023-24.

M/s Rosa Power Supply Company Limited (RPSCL)

---------Petitioner

Uttar Pradesh Power Corporation Ltd. (UPPCL)

--------Respondent

The following were present:

1. Shri Abhishek Kumar, Advocate, UPPCL
2. Shri Deepak Raizada, CE - PPA, UPPCL
3. Shri Sumeet Notani, AVP, RPSCL
4. Shri Siddharth Shekhawat, DGM, RPSCL
5. Shri Umesh Kundale, RPSCL
6. Shri Manoj Pongde, RPSCL
7. Shri Mantu Ghosh, RPSCL
8. Shri Narasingha Kiran, RPSCL
9. Shri Akash Agarwal, RPSCL
10. Shri Rama Shankar Awasthi, Consumer Representative
11. Shri Avdhesh Kumar Verma, Adhyaksha, UPRVUP

ORDER

(Date of Public hearing: .../... /2023)

1. INTRODUCTION

1.1. Rosa Power Supply Company Limited (RSPCL) (hereafter known as the Petitioner) set up a coal-based thermal power station with an installed capacity of 1200 MW in two Stages Stage I and Stage II (2x300 MW) each.

The entire capacity is tied up with UPPCL through Long Term Power Purchase Agreement approved by UPERC.

1.2. All four units are operational at present. The unit-wise COD achieved is as under:

Table 1 COD of the Rosa TPP

Units	Approved by the Commission	Actual COD
Stage I		
Unit 1	March 31, 2010	March 12, 2010
Unit 2	June 30, 2010	June 30, 2010
Stage II		
Unit 3	March 31, 2012	January 01, 2012
Unit 4	July 31, 2012	April 01, 2012

2. EARLIER ORDERS OF THE COMMISSION

2.1. UPERC vide orders dated February 02, 2006, November 01, 2006, and November 08, 2006, approved PPA between UPPCL and the Petitioner for procurement of 600 MW of power from Unit 1 and Unit 2. The PPA was entered on 12.11.2006. The project's capital cost was approved as Rs. 2641.63 Crore with COD of Unit 1 and Unit 2 to be achieved before 31.02.2010 and 30.06.2010 respectively. UPERC vide order dated May 08, 2007, approved the financial package of stage I.

2.2. The Commission vide its order dated April 08, 2009, allowed an additional capital cost of Rs. 470.88 Crore, which got added due to change in scope of work, statutory taxes, duties, and change in the cost of materials, making the total approved project cost of Rs. 3112.81 Crore for Stage I subject to prudence check.

2.3. UPERC vide order dated June 15, 2009, approved the supplementary PPA for procurement of 300 MW of power from stage II of the project and approved project cost of Rs. 3098.6 Crore for Stage II subject to prudence check.

Supplementary PPA was signed with UPPCL on September 11, 2009, for the procurement of 300 MW from Stage II.

2.4. UPERC vide its Order dated May 17, 2010, approved provisional tariff for Unit-1 of Stage-I which was applicable for the period in between COD of Unit-1 & Unit-2. After the commercial operation of Unit-2, the final tariff was approved by the Commission vide its Order dated March 28, 2011, for Stage-I for the period from FY 2009-10 to FY 2013-14 subject to prudence check of Capital Cost at the time of filing of Tariff Petition for the next Tariff period.

2.5. Government of Uttar Pradesh vide G.O (Government Order) dated September 09, 2011, decided to purchase the remaining 300 MW offered by the RSPCL on a cost-plus basis (as stipulated in the PPA). The Commission vide its Order dated December 22, 2011, approved the Amendment to Supplementary PPA signed on November 19, 2011, for procurement of a balance of 300 MW from Stage II.

2.6. The Commission vide its Order dated May 21, 2012, provisionally approved fixed charge for Stage II same as Stage-I for FY 2011-12 & 2012-13 as requested by RPSCL and UPPCL.

2.7. The Commission vide its Order dated August 22, 2017, in Petition No. 967 of 2014, 968 of 2014, and 1016 of 2015 approved Tariff for 4x300 MW Rosa Thermal Power Plant for Stage I & Stage II for the Second Control Period (FY 2014-2015 to FY 2018-19). The Commission also further trued up the Tariff of 600 MW Rosa thermal power plant Stage 1 for FY 2009-10 to FY 2013-14 and determined the Tariff for 600 MW Rosa thermal Power Plant Stage II (FY 2011-12 to FY 2013-14). The Commission approved the capital cost as under:

3.2.5 The Commission appointed an Expert Committee for verification and prudence check of the additional capitalization and Capital cost of Stage-I and Stage II. Expert Committee recommended as under:

Particulars	***Approved (Rs. In Crores)***	***Recommended by Expert Committee (Rs. In Crore)***
Stage 1 (as of 31.03.2012)	*3112.83*	*3112.81*
Stage 2 (as of 31.03.2013)	*3098.60*	*3093.02*

Additional Capital Cost	*550.02*	*517.28**

**Expert committee recommended that UPERC may consider the additional capital cost for pass-through in tariff as and when the same are capitalized and submitted to UPERC in duly certified Form 58 certificates.*

3.2.6 The additional capital cost has been recommended by the Committee but since it was not capitalized, the prudence check could not be done by the Committee. The petitioner has submitted that Rs. 413.86 Crore has been capitalized till FY 2015-16 and Rs. 103.42 Crore is proposed to be capitalized in FY 2016-17.

3.2.11 The Commission is of the view that since the additional Capital expenditure has not been verified by the Expert Committee, the additional capital expenditure capitalized till FY 2013-14 only i.e. Rs. 48.20 crores has been considered for the purpose of determination of tariff and True-up of tariff for Stage-II till 2013-14 and for determination of tariff of Stage-I and Stage-II for MYT Period. However, RPSCL may file a separate petition for approval of Additional Capital Cost for the period FY 2014-15 to FY 2018-19, which shall be approved subject to prudence check.

2.8. The Commission, with regard to the additional capitalization on account of the discharge of liabilities, has ruled as under:

3.2.19 ..... Capital Cost has been approved after deduction of net Undischarged Liability and considering discharge. The Capital cost till FY 2013-14 has been allowed after deducting undischarged liability as on COD and year wise discharge of liability till FY 2013-14 as under:

Stage-I	***2010-11***	***2011-12***	***2012-13***	***2013-14***
Opening Liability	*452.98*	*390.56*	*46.86*	*15.21*
Addition	*0.00*	*0.00*	*0.00*	*0.00*
Discharge	*62.41*	*343.70*	*31.65*	*15.21*
Closing Liability	*390.56*	*46.86*	*15.21*	*0.00*

Stage-II	*2012-13*	*2013-14*
Opening Liability	*286.86*	*175.40*
Addition	*0.00*	*46.05*
Discharge	*111.45*	*0.00*
Closing Liability	*175.40*	*221.45*
Capital Advances	*41.02*	*26.68*
Net Capital Liabilities	*134.39*	*194.78*

However, discharge of liability for the period FY 2014-15 to FY 2018-19 shall be considered while truing up of tariff for FY 2014-15 to FY 2018-19"

1.1.1 The Commission vide its Review Order dated April 25, 2018 in the Petition No. 1234 of 2017 in the matter of Review Petition filed by the RPSCL for review of the above referred Order dated August 22, 2017 had revised the various components of ARR for the period FY 2014-15 to FY 2018-19. A summary of the revised components of ARR in the Order dated April 25, 2018 is as shown below:

Table 1: Revised components of ARR approved in Order dated 25.04.2018 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	247.24	247.24	247.24	247.24	247.24
Depreciation	347.31	347.31	347.31	347.31	347.31
Advance against Depreciation	-	-	-	-	-
Interest on Loan	336.55	294.41	252.98	222.69	193.68
Interest on Working Capital	175.60	174.90	174.75	175.11	175.57

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
O&M Expenses (Normative)	239.40	254.52	270.48	287.52	305.64
Total	**1,346.09**	**1318.38**	**1292.76**	**1279.87**	**1269.43**
Ex-bus Energy Sent Out	8131.03	8153.31	8131.03	8131.03	8131.03
Capacity per unit charge	1.66	1.62	1.59	1.57	1.56

2.9. The Petitioner filed Petition no. 1389 of 2018 for quashing of impugned letters dated September 26, 2018, November 29, 2018, and bill statement dated December 05, 2018, regarding UPPCL's share in efficiency gain along with carrying cost for the period FY 2014-15 to FY 2016-17 calculated as per UPERC Generation Tariff Regulations, 2014. The Commission vide its Order dated May 30, 2019, in the above petition has ruled as follows:

"18. The Commission quashes the recovery of Rs. 293.40 crores issued vide debit note dated 26.09.2018 to the petitioner. The commission directs the petitioner to submit the true up application for FY 2015-16 to FY 2017-18 within next two months and the true up application for FY 2018-19 by 31.10.2019. After filing of the true up petition, the Commission will forthwith carry out the true up exercise forthwith carry out the true up exercise for efficiency gains and would determine the efficiency gain due for sharing as per provisions of UPERC, Generation Tariff Regulation, 2014."

2.10. The Commission vide its order dated February 04, 2020, in Petition No. 1233 of 2017 filed by the RPSCL in the matter of approval of additional capitalization for the period FY 2014-15 to FY 2016-17 approved an additional capitalization of Rs. 225.50 crores for the period FY 2014-15 to FY 2016-17. The Petitioner was further directed to file True-Up Petition considering additional capital expenditure as approved by the Commission. The relevant extract of the Order is as follows:

"summary of approval of additional capitalization for FY 2014-15 to FY 2016-17 is as below:

S. No.	*Item*	*Recommended by the Expert Committee*	*Approved by UPERC*	*Remarks*
1	*Wagon Tippler and Associated Facilities*	*272.35*	*125*	*As per para 16.4 (A)*
2	*Other works of CHP*	*20*	*20*	

	Augmentation			
3	*Works other than CHP Augmentation*	*81.03*	*80.5*	*As per Para 16.4 (B)*
Total		*373.38**	*225.5**	

**Expert Committee recommendation of Rs. 421.55 Crore less Rs 48.20 Crore approved earlier by Commission vide order dated 22.08.2017 in Petition no 967/2014, 968/2014, and 1016/2015."*

2.11. The Commission vide its Order dated March 08, 2021, in Petition No. 1525 of 2019 filled by UPPCL seeking recovery of interest on working capital claimed by RPSCL against the interest-free loan earned from the Petitioner on account of deferred tax liability benefits under the Uttar Pradesh Power Policy, 2003 for the period from FY 2010-11 to FY 2018-19 provided that:

"Commission's view

30. Therefore, in the absence of regulatory provision for carrying out True-up of working capital under the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 the claim of UPPCL for the control period of FY 2009-14 i.e., till 31.03.2014 is disallowed. Accordingly claim of carrying cost on this account is also rejected.

Regarding the claim of UPPCL seeking recovery of the excess interest of working capital on account of non-funded components of Entry Tax and VAT on Coal, and secondary fuel, for the control period FY 2014-19, the Commission shall decide the same while carrying out true up exercise of RPSCL in Petition No. 1529 of 2019 filed by the respondent for the control period FY 2014-19 in terms of relevant provisions of UPERC Generation Tariff Regulations, 2019.

The Petition is disposed of in terms of above."

2.12. The Commission vide its order dated April 06, 2011, in Petition No. 1390 of 2018 filled by RPSCL seeking in-principal approval of capital cost required to be incurred by the Petitioner for (i) enhancement of the capacity of existing ICTs from 2X220 MVA to 2X315 MVA between Rosa 220 kV & 400kV Switchyards in FY 2018-19 and (ii) Ash Dyke Bund raising works for Lagoon 2 and Lagoon 1 in FY 2019-20, of Rosa TPP provided that:

"Issue of ICT....

16. Both RPSCL and UPPCL have consensus that there is no constraint of power of tripping on account of the capacity of the 2x200 MVA. There being no Regulatory Provision for in-principal approval, the Commission is not presently inclined to deal with the proposed additional capitalisation of Rs. 25 Crore towards encashment of capacity of ICT between 220 kV and 400 kV switch yard from 2X200 MVA to 3X315 MVA.

Commission's View

19. The Commission, in view of admission by RPSCL that there is no constraint to the power flow; is not inclined to deal at present with the proposed additional capitalisation of Rs. 25 Crore towards the enhancement of capacity of ICT between 220 kV and 400 kV switch yard from 2x200 MVA to 2x315 MVA.

However, with the upcoming power stations, the transmission network strengthening work is also carried out in parallel at all voltage levels in the State. Therefore, UPPTCL may undertake a detailed load flow study considering all future transmission network upgradation projects and generation capacity addition in the state and recommend whether 2x315 MVA ICT is required or not.

20. The Commission shall consider actual expenditure incurred on account of ash dyke after prudence check at the time of dealing with True-up Petition filed by the Petitioner."

2.13. The Commission vide its order dated February 25, 2022, in Petition No. 1529 of 2019 filled by the Petitioner seeking approval of additional capitalization (i) in accordance with the order dated February 04, 2022, in Petition No. 1233 of 2017 (ii) on account of ash dyke bund raising of lagoon-2 (1st raising) & (iii) Claim on account of undischarged liability, discharged during the period FY 2014-15 to FY 2018-19 provided as shown below:

A. Additional capitalization in accordance with the Commission's order dated 04.02.2020 in Petition No. 1233 of 2017

3.3.11 The Commission has gone through the submission of the Petitioner and the. Basis the cash basis certificate dated 5/10/2018, the Commission has segregated the cash expenditure incurred for payments to vendors against each approved scheme for capitalization of Rs. 225.50 Crore, for each year (FY 15 to FY 19) separately. The Petitioner has not provided the exact year of payments to certain vendors in the details submitted and has mentioned various dates. The total payments on various dates in Rs. 18.97 Crores. The Commission has considered all payments mentioned as various dates, as have being paid in FY 2018-19. Accordingly, the Commission has computed the scheme-wise cash expenditure for each year from FY 2014 -15 to FY 2018-19 is shown in Table below:

Table 3-7: Details of scheme-wise Additional Capitalisation on cash basis as computed by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Various dates (FY 2018-19)	Total
Ultra filtration Unit in DM Plant	0.02	0.82	0.00	0.00	0.00	0.00	0.84
Additional DM Water storage tank	0.00	1.90	0.00	0.00	0.00	0.00	1.90

Ash Handling Plant	*2.17*	*7.34*	*17.88*	*0.07*	*0.00*	*0.19*	*27.65*
Hydrogen Generation Plant	*0.25*	*4.73*	*6.16*	*0.04*	*0.00*	*0.00*	*11.18*
Stator Cooling Plant Alkalizer	*0.00*	*0.00*	*0.00*	*0.83*	*0.00*	*0.00*	*0.83*
Turbine Lube Oil Modification	*0.70*	*1.29*	*6.04*	*0.00*	*0.00*	*0.00*	*8.03*
Side Stream Filtration	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*
Install of 5th Circulating Water pump	*0.49*	*7.67*	*0.97*	*0.00*	*0.00*	*0.00*	*9.13*
Electrical System Augmentation	*0.00*	*5.59*	*1.70*	*0.23*	*0.00*	*0.00*	*7.52*
Coal handling Plant Augmentation	*45.60*	*67.73*	*9.95*	*3.27*	*0.06*	*18.40*	*145.00*
Control & Instrumental Aug.	*0.00*	*2.12*	*0.40*	*0.00*	*0.00*	*0.00*	*2.53*
Stores Augmentation	*0.00*	*2.83*	*0.00*	*0.00*	*0.00*	*0.00*	*2.83*
Various Civil Works	*0.05*	*6.83*	*2.29*	*0.63*	*0.00*	*0.38*	*10.18*
Total Capitalization	***49.30***	***108.85***	***45.38***	***5.07***	***0.06***	***18.97***	***227.63***
Disallowance (by Expert Committee)	*1.52*	*0.17*	*0.44*				
Capitalisation allowed on cash basis	***47.78***	***108.68***	***44.94***	***5.07***	***0.06***	***18.97***	***225.50***

3.3.12 Further, the overall cash basis additional capitalization for the control period, and corresponding undischarged liability and discharge of liability considered by the Commission is as under:

Table 3-8: Details of Additional Capitalisation on cash basis as computed by the Commission for the control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

		FY 2014-15	*FY 2015-16*	*FY 2016-17*	*FY 2017-18*	*FY 2018-19*	*Total*
Additional Capitalization apportioned	*A*	*150.16*	*61.26*	*14.08*	*0.00*	*0.00*	*225.50*

Additional Capitalization (Cash basis)	*B*	*47.78*	*16.03*	*5.37*	*0.00*	*0.00*	*69.19*
Undischarged Liability (from above)	*C=A-B*	*102.38*	*45.23*	*8.71*	*0.00*	*0.00*	*156.31*
Discharge of liability on Add cap	*D*	*0.00*	*92.65*	*39.57*	*5.07*	*19.03*	*156.31*
Cumulative Discharge of Liability	*E*	*0.00*	*92.65*	*132.33*	*137.28*	*156.31*	
Total cash basis additional capitalization	*F=B+D*	*47.78*	*108.68*	*44.94*	*5.07*	*19.03*	*225.50*

B. Additional capitalization on account of ash dyke bund raising of lagoon-2 (1st raising)

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3.3.15 Based on above, in order to have a smooth and continuous handling of ash disposal in the generating station as per Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014, the Commission is inclined to allow the expenditure of Rs. 22.49 Crore of incurred during FY 2018-19 towards 1st raising Lagoon 2 of Ash dyke. Further, on Commission query, the Petitioner vide reply dated 27.1.2022, submitted that it has done the expenditure from 100% equity and submitted the Auditor certificate dated 22.1.2022 providing that the completed cash-basis expenditure has been done in FY 2018-19. The Petitioner is directed to ensure that suitable measures shall be taken to achieve its responsibility of 100% ash utilization.

2.14. Furthermore, The Commission vide its order dated February 25, 2022, in Petition No. 1529 of 2019 filled by the Petitioner seeking the revision of the tariff on the liability discharge towards the capital cost of the Rosa TPP during the Control period FY 2014-15 to FY 2018-19 provided as shown below:

C. Claim on account of undischarged liability, discharged during the period FY 2014-15 to FY 2018-19

.....

3.3.22 Based on the above, the Commission has arrived at the year-wise discharge of liability of Rs. 194.78 Crore as under:

Stage-II	***FY 2014-15***	***FY 2015-16***	***FY 2016-17***	***FY 2017-18***	***FY 2018-19***

Opening Liability	*194.78*	*-177.49*	*1.41*	*1.41*	*0.85*
Addition	-	-	-	-	-
*Discharge**	*17.29*	*176.07*	-	*0.56*	*0.85*
Closing Liability	*177.48*	*1.41*	*1.41*	*0.85*	*0.00*

*since 194.78 Crs was approved by Commission after adjusting the advance of Rs. 26.68 Crs, the same has been adjusted accordingly.

3.3.23 Accordingly, the discharge of liabilities of Rs. 194.78 Crore of Stage –II as per Table above and that of additional expenditures from FY 2014-15 to FY 2018-19 as per Table 3-6 is summarized below as liability flow statement:

Table 3-12: Details of Total Discharge of liabilities towards capital cost for FY 2014-15 to FY 2018-19 (Rs. Crore)

Stage-II	***FY 2014-15***	***FY 2015-16***	***FY 2016-17***	***FY 2017-18***	***FY 2018-19***
Opening UDL	*194.78*	*279.86*	*56.37*	*25.51*	*19.88*
Addition to UDL (due to add cap14-15 to 18-19)	*102.38*	*45.23*	*8.71*	*0.00*	*0.00*
Total UDL	*297.16*	*325.10*	*65.09*	*25.52*	*19.88*
Discharge of UDL (Stage II as on 31.03.2014)	*17.29*	*176.07*	*0.00*	*0.56*	*0.85*
Discharge of UDL (add cap 14-15 to 18-19)	*0.00*	*92.65*	*39.57*	*5.07*	*19.03*
Total Discharge of UDL	***17.29***	***268.72***	***39.57***	***5.63***	***19.88***
Closing UDL	*279.86*	*56.37*	*25.51*	*19.88*	*0.00*

The undischarged liabilities w.r.t. stage II and additional capital expenditure during the control period have been discharged completely as on 31.03.2019.

2.15. The Commission vide its Order dated 11.01.2023 in the Review Petition No. 1849 and 1851 of 2022 filed by RPSCL and UPPCL seeking review of True-up True Up Order dated 25.02.2022, held as follows:

GFA for FY 2014-15 to FY 2018-19 (Rs. / Cr)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Capital Cost	6076.97	6142.04	6426.79	6471.73	6477.36
Add-cap during the year (cash basis)	47.78	16.03	5.37	0.00	22.49
Discharge of undischarged liability	17.29	268.72	39.57	5.63	19.88
Net addition	65.07	284.75	44.94	5.63	42.37
Closing Capital Cost	6142.04	6426.79	6471.73	6477.36	6519.73

All the undischarged liabilities w.r.t. Stage II and additional capital expenditure during the control period have been discharged completely as on 31.3.2019.

Revised Table 2: Trued Up Annual Fixed Charges approved by the Commission for the Control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Stage I+ Stage II					
Return on Equity	248.74	256.42	263.69	264.90	266.05
Depreciation	348.41	357.32	365.72	367.01	368.03
Interest on Loan	326.46	284.87	267.18	234.28	236.26
Interest on working capital	168.37	156.02	141.58	134.01	135.32
O&M expenses	239.40	254.52	270.48	287.52	305.64
Total	1331.37	1309.16	1308.65	1287.73	1311.30
Total AFC approved in MYT	1346.09	1318.38	1292.76	1279.9	1269.43
difference	-14.72	-9.22	15.89	7.86	41.87

Revised Table 3: Carrying Cost on AFC as approved by the Commission for FY 2014-15 and FY 2018-19) (Rs. Crore) vide this Order

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Balance of Principal	0.00	-14.72	-23.94	-8.04	-0.19
Addition on account of Fixed Charges true up	-14.72	-9.22	15.89	7.86	41.87
Closing Balance of Principal	-14.72	-23.94	-8.04	-0.19	41.69
Average Balance	-7.36	-19.33	-15.99	-4.11	20.75
Rate of carrying cost	**13.50%**	**13.50%**	**12.80%**	**12.60%**	**12.20%**
Carrying Cost for the year	**-0.99**	**-2.61**	**-2.05**	**-0.52**	**2.53**

Particular	FY 2019-20	FY 2020-21	FY* 2021-22	Total
Opening Balance of Principal	41.69	41.69	41.69	
Addition on account of Fixed Charges true up	0.00	0.00	0.00	
Closing Balance of Principal	41.69	41.69	41.69	
Average Balance	41.69	41.69	41.69	
Rate of carrying cost	**12.55%**	**11.65%**	**10.90%**	
Carrying Cost for the year	**5.23**	**4.86**	**4.12**	**10.57**

*Till 25.2.22

Revised Table 4: Carrying Cost on Efficiency gain as approved by the Commission for FY 2014-15 and FY 2018-19) (Rs. Crore) vide this Order

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Balance of Principal	0.00	-37.63	-60.12	-95.03	-143.20
Gain sharing	-37.63	-22.49	-34.91	-48.17	-34.99
Closing Balance of Principal	-37.63	-60.12	-95.03	-143.20	-178.19
Average Balance	-18.82	-48.88	-77.58	-119.12	-160.70
Rate of carrying cost	**13.50%**	**13.50%**	**12.80%**	**12.60%**	**12.20%**

Carrying Cost for the year	**-2.54**	**-6.60**	**-9.93**	**-15.01**	**-19.61**

Particular	**FY 2019-20**	**FY 2020-21**	**FY * 2021-22**	**Total**
Opening Balance of Principal	-178.19	-178.19	-178.19	
Gain sharing	0.00	0.00	0.00	
Closing Balance of Principal	-178.19	-178.19	-178.19	
Average Balance	-178.19	-178.19	-178.19	
Rate of carrying cost	**12.55%**	**11.65%**	**10.90%**	
Carrying Cost for the year	**-22.36**	**-20.76**	**-17.61**	**-114.42**

*till 25.2.22

Total Carrying cost for FY 2014-15 to FY 2018-19 is Rs. (103.85) Crores Rs. 10.57 Cr+ Rs. (114.42) Cr.

66. The Commission vide its order dated 25.02.2022, the order under Review in instant Petitions, had approved a refund total amount of Rs. 320.08 Crore (Rs. 61.95 Cr for AFC+Rs. 26.26 Cr for carrying cost up to 31.03.2019 on AFC+Rs. 178.19 Cr for efficiency gain+Rs. 53.68 Cr for carrying cost up to 31.03.2019 on efficiency gain).

67. After deciding the review of the contentions of the Petitioner(s) at Para 64 above, the Commission now approves a refund total amount of Rs. 240.36 Crore (Rs. 41.69 Cr for AFC+Rs. 10.56 Cr for carrying cost *up to 25.02.2022* on AFC - Rs. 178.19 Cr for efficiency gain - Rs. 114.42 Cr for carrying cost *up to 25.02.2022* on efficiency gain)) and directs the Petitioner to refund the aforesaid amount in six equal monthly installments starting within three months from the date of True-up tariff Order dated 25.02.2022 in line with Regulation 6(10) of UPERC Generation Tariff Regulations, 2014.

2.16. The Commission, through Suo-moto Orders, on provisional basis, had extended the FY 2018-19 tariff determined under the UPERC (Terms and Conditions of Generation Tariff) Regulation, 2014 applicable for MYT 2014-19, subject to adjustment with applicable interest, if any, till MYT Tariff Order of the Projects for Control Period 2019-24 are issued.

2.17. The Petitioner filed the Petition no. 1578 of 2020 on May 04, 2020, in compliance with Regulation 15 of UPERC (Term and Condition of Generation Tariff) Regulation, 2019, read with section 61, section 62, and section 86 of the act seeking approval of the Multi-year tariff for the control period FY2019-20 to FY 2023-24.

2.18. Further, the Commission vide its order dated May 02, 2022, directed the Petitioner to file by 20.05.2022, a revised Petition considering true-up order issued by the Commission in Petition No. 1529 of 2019 dated February 25, 2022, and accordingly, the Petitioner has filed the revised Petition with a delay of 4 days and has prayed the following:

a. Condone the delay of 4 days in filing this amended MYT Petition and admit the present Petition
b. Approve the additional Capitalisation incurred by the Petitioner
c. Approve the Fixed Charges for supplying the regulated Contracted capacity of 1200 MW to UPPCL for the Control period from FY 2019-20 to FY 2023-24 as proposed by the Petitioner
d. Provide the workable excel model used by the Commission for approval of Multi-Year Tariff for the Control Period from FY 2019-20 to FY 2023-24
e. Condone any shortcomings in the Petition and allow the Petitioner to submit additional information as may be required by the Commission at a later stage.

3. PRELIMINARY SCRUTINY OF THE PETITION AND RECORD OF PROCEEDINGS

3.1. The Petitioner filed the Petition no. 1578 of 2020 on May 04, 2020, in compliance with Regulation 15 of UPERC (Term and Condition of Generation Tariff) Regulation, 2019, read with section 61, section 62, and section 86 of the act seeking approval of the Multi-year tariff for the control period FY2019-20 to FY 2023-24.

3.2. The Commission vide its order dated October 28, 2020, for the hearing conducted on October 27, 2020, in the Petition No. 1578 of 2020 decided to conduct the Technical validation on November 20, 2020, through video conferencing.

3.3. Various deficiencies in respect of Annual fixed charges, statutory charges, operational parameters, etc were observed and communicated to the Petitioner vide letter dated October 29, 2020. The Petitioner submitted their response to the deficiencies in respect of ARR for FY 2019-20 to FY 2023-24 vide submission dated November 18, 2020, and December 23, 2020.

3.4. On June 30, 2021, Uttar Pradesh Power Corporation Limited filed the reply to the instant Petition No. 1578 of 2020. The Commission admitted the Petition for further processing vide order dated March 15, 2022, and directed the Petitioner to further information/clarifications if any, as deemed necessary by the commission during the processing of the Petition and to publish a public notice in one English and one Hindi daily newspaper and decided to hold a public hearing on April 21, 2022.

3.5. The Commission vide its order dated May 02, 2022, for the public hearing on 21.04.2022 directed the Petitioner to file an amended Petition on or before 20.05.2022. The Petitioner submitted the amended Petition of 1578 of 2020 as per the direction of the Commission on May 25, 2022. On August 24, 2022, Uttar Pradesh Power Corporation Limited filed the reply to the instant Petition No. 1578 of 2020. The Commission vide its order dated December 29, 2022, for the Public hearing on December 20, 2022, admitted the amended MYT Petition and decided to hold the Public Hearing on February 14, 2023, and vide its Order dated 20.02.2023 allowed parties to file their written submissions, if any. RPSCL has filed its rejoinder on 10.02.2023 and UPPCL has filed its written submission on 16.03.2023.

2 UPPCL OBJECTION/PETITIONER REPLY

Additional Capitalization:

UPPCL Submission

3.6. UPPCL vide its Reply has contended that the Additional Capitalization of Rs. 19.49 Crore claimed by RPSCL for FY 2020-21 for Ash Dyke Bund Raising for Lagoon-1 (2nd raising) deserves to be rejected on account of the following:

(a) That the Petitioner has placed reliance on Regulation 22(2)(iv) & (vi) of the Tariff Regulations, 2014 which do not apply for FY 2020-21 and prudence check for 2nd raising of Lagoon-1 has to be conducted as per the Tariff Regulations, 2019;

(b) That the Petitioner's reliance on the findings of this Hon'ble Commission under paragraphs 3.3.13 to 3.3.14 of the True-up Order 2022 to justify the claim for 2nd raising of Lagoon-1 in the instant petition is misplaced since the reasoning applied for approval of 1st raising of Lagoon-2 cannot be as it is blindly applied for 2nd raising of Lagoon-1;

(c) That the Petitioner's plea, basis a draft notification issued by the Ministry of Environment, Forests & Climate Change (MoEFCC), to

build the sufficient capacity of the ash dyke by undertaking bund raising was not allowed by this Hon'ble Commission vide True-up Order 2022;

(d) That the Petitioner has not submitted its action plan for 100% ash utilization along with MYT petition as directed by Hon'ble Commission in True-up Order;

(e) That the expenditure incurred by RPSCL to dump ash on land is contrary to its pre-existing obligations and obligations under MoEFCC Notification, 2021 to comply with the requirements of 100% ash utilization including legacy ash.

Petitioner Reply

3.7. In reply to the above objection the Petitioner submitted that it has not sought approval of the Commission for Additional Capitalization of Rs. 19.49 Crore for Ash Dyke Bund Raising for Lagoon-1 (2nd raising) as per the Tariff Regulations, 2014. In the petition, RPSCL has referred Regulation 22(2)(iv) & (v) of the Tariff Regulations, 2014 only to set the context that raising of Ash Dyke was also allowed in Tariff Regulations, 2014. This work related to ash pond and raising of ash dyke fall within the scope and purview of Regulation 20 (2)(v) & (vi) of the UPERC Tariff Regulations, 2019. The said expenditure of Rs. 19.49 Crore squarely falls within the scope and meaning of Regulation 20(2) (v) & (vi) of the UPERC tariff Regulations, 2019 and therefore has been included in the present petition for consideration of the Commission.

3.8. The Petitioner submitted that earlier Commission in its Order dated 06.04.2021 in Petition No. 1390 of 2018 has considered the additional capital expenditure incurred on account of ask dyke bund raising of Lagoon 2 (1st raising). In the referred Order, the Commission has noted that the bund raising of Lagoon-2 (1st raising) and Lagoon-1 (2nd raising) was undertaken and the work of Lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crore. The raising of bund for Lagoon-1 (2nd raising) is underway and shall be completed by October 2019 with estimated cost of Rs. 20 Crore. Further, the Commission, in its Order dated 25.02.2022 in Petition No. 1529 of 2019 has approved additional capital expenditure incurred on account of ask dyke bund raising (Lagoon-2 1st raising). The raising of bund for Lagoon-1 (2nd raising) was completed in FY 2020-21 and accordingly, the Petitioner has claimed Additional Capitalization against it in the instant petition as per the Tariff Regulations, 2019.

3.9. The Petitioner submitted that in the Design Basis Report of Ash Handling System, the specifications capture the design basis for various components of the ash handling system which considers the height of ash dyke to be raised gradually up to 30 M during the operational phase of the project. Therefore, ash dyke bund raising works are additional works which are necessary during the operational life of the power station and were considered in the design of ash handling system.

3.10. The Petitioner submitted that since Rosa TPP falls under that category of ash utilization of 60 to 80% specified in Clause A(4) of the Notification, average 100% ash utilization needs to be achieved in 4 years cycle, i.e., FY 2022-23 to FY 2025-26 and minimum 80% of ash generated in FY 2022-23 is to be utilized in the same year. Further, the legacy ash is required to be utilized progressively to ensure that the utilization of legacy ash shall be completed fully within 10 years from the date of publication of MoEF Notification and minimum legacy ash to be utilized in % of annual ash generated is 20% in 1st year, 35% in 2nd year and 50% during 3rd to 10th year.

3.11. Furthermore, It indicates that sufficient capacity is required in the ash dyke for Rosa TPP for the dumping of ash generated during the year and legacy ash over the next 4 years and 10 years, respectively till the utilization of ash is achieved 100%.

3.12. The Petitioner submitted that MoEF notification dated 31.12.2022 allows additional "operational ash ponds/dyke' for "temporary storage" for plants which have already exhausted their dyke capacity. Since there is no additional land available at Rosa TPP for developing new ash pond at present, in addition to increasing level of ash utilization, raising bund in the existing ash dyke is also required to comply with time lines for ash utilization targets as per MoEF Notification.

3.13. The Petitioner has achieved ash utilization of more than 100% during FY 2018-19 to FY 2020-21. Ash utilization for FY 2021-22 was at 79%. Till January 2023, Rosa has achieved ash utilization of 89% and Rosa is targeting to achieve 100% ash utilization during FY 2022-23. In this context, it is pertinent to mention that as per the report of Ministry of Power on ash utilization, average fly ash utilization for 200 no. of coal / lignite based thermal power stations of various power utilities in the country was 95.95% for FY 2021-22. Out of 200 power plants, only 92 no. of plants have achieved fly ash utilization of 100% and more. Also, fly ash utilization for 80 plants was less than 90% which includes plants of public utilities like NTPC and other private utilities. This underlines the challenges being faced by power plants in the country for achieving 100% ash utilization. The Petitioner has

submitted that it has been performing better than many other plants in the country in term of ash utilization and it is committed to achieve 100% in future in compliance to MoEFCC notifications. The Petitioner has submitted that it is committed to ensure 100% ash utilization and in this regard multiple steps have been taken. One such step is RPSCL has created the facility for dispatch of ash to the ash users located at longer distances through rail mode using existing railway siding facility and dispatch of ash through the rail mode has already been started.

Means of Finance

UPPCL Submission

3.14. The Petitioner has not placed its Board resolution as per Regulation 22(1)(i) of the Tariff Regulations, 2019 regarding the infusion of funds from internal resources.

Petitioner Reply

3.15. In this regard, the Petitioner submitted that it has executed the additional capitalization of Rs. 19.49 Crore from the internal accruals and reserves and surplus and has considered normative, i.e., 70:30 Debt: Equity ratio as per the Tariff Regulations 2019. RPSCL submits its Board Resolution as per Regulation 22(1)(i) of the Tariff Regulations, 2019 regarding the infusion of funds from internal resources.

Return on Equity

UPPCL Submission

3.16. The rate of ROE should be allowed to the Petitioner at 15% as per the Tariff Regulations, 2019 without any additional rate of ROE of 0.5% for early commissioning of the project.

Petitioner Reply

3.17. The Petitioner submitted that as regards ROE there is an inconsistency in Tariff Regulations, 2019 as compared to previous Tariff Regulations, as Tariff Regulations, 2019 are silent about the provision of additional ROE of 0.5% on account of early commissioning of the project. Regulation 2(4) of Tariff Regulations, 2019 specifies that the Commission may be approached in case of any inconsistency with parameters given in Tariff Regulations, 2019 against the parameters determined through earlier Regulations and considering that the Petitioner in the present MYT Petition has claimed the additional return of 0.5% for the control period of FY 2019-20 to FY 2023-24.

3.18. Furthermore, the Petitioner submitted that by completing the project ahead of schedule, it has saved the cost of project by reducing IDC and other costs which otherwise could have led to increased project cost if project was delayed. The benefit of saving in project cost is also passed on to the beneficiary, i.e. UPPCL through reduced AFC over the term of PPA. Additionally, the Petitioner is of the view that additional rate of ROE of 0.5% should not be limited to the control period of tariff regulations and it should be allowed for the entire term of PPA to incentivize the developer for its efforts to complete project ahead of schedule.

Interest on Loan

UPPCL Submission

3.19. The Petitioner has not computed the rate of interest for the debt component as per the Tariff Regulations, 2019 considering the weighted average rate of interest calculated on the basis of actual loans at the beginning of each financial year and the Petitioner should submit the auditor certificates for interest on loan component.

Petitioner Reply

3.20. The Petitioner submitted that in its petition, it has considered the opening loan balance of FY 2019-20 same as closing loan balance approved by the Commission in True-up Order dated 25.02.2022 and subsequent addition, as 70% of the addition on account of additional capitalization has been considered in FY 2020-21. Interest rate has been considered as the weighted average rate of interest calculated on the basis of actual loans at the beginning of each financial year from FY 2019-20 to FY 2023-24. However, the Petitioner has submitted in the revised MYT petition that the interest rate has been considered based on the weighted average rate of interest of the project loan portfolio projected for FY 2019-20 to FY 2023-24, instead of actual loan portfolio at the beginning of each financial year. Due to this, UPPCL has wrongly interpreted that the Petitioner has not computed the rate of interest for debt component considering weighted average rate of interest calculated on the basis of actual loans at the beginning of each financial year.

3.21. Furthermore, the Petitioner submitted that the calculation for rate of interest submitted along with the present MYT petition has been done as per the said provisions, i.e., considering actual loan portfolio at the beginning of each financial year for FY 2019-20 to FY 2023-24.

Depreciation

UPPCL Submission

3.22. Depreciation should be allowed by strictly scrutinizing the Petitioner's submissions as per Regulations 24(iii) of the Tariff Regulations, 2019.

Petitioner Reply

3.23. The Petitioner submitted that Depreciation has been worked out in accordance with Regulations 24(iii) of the Tariff Regulations, 2019. However, it has inadvertently considered Rs. 19.49 Crore of addition to the gross block for FY 2020-21 on account of Ash Dyke Bund raising for Laggon-1 (2nd Raising) under the category of 'roads' in Form 11. It is pertinent to mention that in the True-up proceedings for FY 2014-19, the Petitioner had considered an addition to the gross block for FY 2018-19 on account of Ash Dyke Bund raising for Laggon-2 (1st Raising) under the category of 'Boiler and Plant'.

Operation & Maintenance & Statutory Charges:

UPPCL Submission

3.24. UPPCL submitted that the Commission may specify at this stage itself the actual expenditure by the Petitioner should be considered at the stage of True-up & surplus should be allowed to meet increased O&M Expenditure in the subsequent year.

3.25. The Petitioner's claim for Statutory Charges pertaining to FY 2019-20 to FY 2021-22 should be allowed only subject to prudence check and Statutory Charges claimed for FY 2022-23 and FY 2023-24 ought to be rejected and the same be allowed only subject to prudence check.

Petitioner Response

3.26. The Petitioner submitted that O&M expenses for control period have been considered as per O&M norms applicable for 300 MW units as per Regulation 24(iv) of the Tariff Regulations, 2019. Further, the issue raised by UPPCL regarding actual O&M expenditure and allowing surplus (if any) to meet increased O&M expenditure in the subsequent years is not relevant at the stage of MYT. Moreover, truing-up of O&M expenses is not envisaged in Tariff Regulations, 2019.

3.27. It is pertinent to mention that similar contention of truing-up of O&M expenses was raised by UPPCL in True-up of 2014-19 period. UPPCL had filed a Review Petition (Petition No. 1851 of 2022) seeking review of True-up Order dated 25.02.2022 with prayer to carry out truing-up of O&M expenses for 2014-19 period in line with Regulation 25(iv)(a)(ii) of Tariff Regulations, 2014.

3.28. The Petitioner on reply of Statutory charges submitted that as mentioned in MYT petition, it has considered the Statutory Charges for FY 2019-20 to FY

2021-22 based on the actual cost incurred during these years. RPSCL will submit the relevant supporting documents for its claims of Statutory Charges and application fees for FY 2019-20 to FY 2021-22, if sought by Hon'ble Commission, at later stage.

Interest on Working Capital

UPPCL Submission

3.29. Direct the Petitioner to re-compute Interest on Working Capital (IoWC) strictly as per Regulation 24(v) of the Tariff Regulations, 2019 as RPSCL has considered the fuel cost as per True-up Order 2022 and the rate of IoWC as 12.05% instead of 11.70%.

Petitioner Reply

3.30. The Petitioner submitted that in Form-13B, it has shown calculations for IoWC for FY 2018-19 for reference purpose and put a remark that the calculations for IoWC for FY 2018-19 are as per the True up Order 2022. The same has been misrepresented by UPPCL in its reply.

3.31. Furthermore, in reply to the Bank rate query the Petitioner has submitted that UPPCL's observation on SBI MCLR as on 01.04.2019 is incorrect. The Petitioner has correctly considered SBI MCLR of 8.55% as on 01.04.2019 for calculation of rate of interest as 12.05% for IoWC.

Additional infirmities in Tariff Filing forms

UPPCL Objection

3.32. That UPPCL submitted that the Petitioner has not submitted audited balance sheet- P&L for FY 2019-20 to FY 2021-22 as per Sr. No. 2 of checklist appended to the Tariff filing forms for thermal power plant under Tariff Regulations, 2019. Furthermore, the Petitioner has also not submitted the latest available Cost Audit Report as per Sr. No. 8 of checklist.

3.33. Additionally, UPPCL submitted that the Petitioner has not submitted relevant information in Form 9D of Tariff forms and not filed few of Tariff forms as per the format prescribed under the Tariff Regulations, 2019.

Petitioner Submission

3.34. The Petitioner submitted that Sr. No. 2 of checklist states that station wise and Corporate Audited Balance Sheet and Profit & Loss Accounts with all Schedules & annexures have to be submitted for the existing station for relevant year. It is further submitted that the said documents sought by UPPCL are not relevant at the current MYT tariff determination stage and may be required at true up stage only.

3.35. Furthermore, the Petitioner has submitted the Cost Audit Reports for FY 2014-15 to FY 2018-19 to the Commission in True-up proceedings vide replies dated 09.08.2021 to TVS queries. The Petitioner submits that the Cost Audit Reports for FY 2019-20 to FY 2021-22 are not relevant at the current MYT tariff determination stage and may be required at true up stage only.

3.36. Additionally, the Petitioner Submitted that Form 9D is for statement showing items/assets/works claimed under exclusions. Since, it has not claimed exclusions on assets not allowed in tariff and, it has not filled any information in Form 9D. The Petitioner has submitted that it has submitted all Tariff forms as per the format prescribed under the Tariff Regulations, 2019.

Objection of the Stakeholder

3.37. During the public hearing dated 14.02.2023, the following stakeholders submitted their comments and objection:

3.38. Sh. Rama Shankar Awasthi submitted that the Petitioner has not incorporated various earlier orders of the Commission in the instant Petition, therefore, the Commission is requested to incorporate the same and order. Further, with regard to additional capitalisation against the ash dyke, MoEF&CC has notified certain directions for the same, hence the Commission is requested to prudently allow the cost keeping in view the consumer interest. ROE @15% should be allowed as per the applicable Generation Tariff Regulations 2019. Interest on Working Capital allowed should be as per the actual coal stock instead of the normative specified in the Tariff Regulations.

3.39. Sh. Avdhesh Kumar Verma submitted that in response to the Commission 's deficiency notes in the matter, the Petitioner has not provided the logical reasoning against the claimed capitalisation amount and therefore, should be disallowed. The Petitioner has not provided the details of gain from the fly ash used for construction and other activities and therefore, the cost towards the same should be disallowed. Further, the Commission is requested to allow tariff as per Generation Tariff Regulations, 2019.

3.40. UPPCL submitted that additional capital expenditure should be allowed when actually incurred by the generator after prudence check. The Petitioner has not provided supporting documents for the claim of funding additional capital expenditure through internal resources and therefore should not be permitted by the Commission. Further, instead of complying the MoEF&CC mandated norms to utilise legacy ash, expenditure claimed towards ash dyke height to store additional ash should not be allowed. Actual Interest on Loan should be allowed. ROE @15% should be allowed since this Commission while framing the Generation Tariff Regulations 2019 already rejected the incentive

for early commissioning. Regarding statutory charges, the Petitioner has not provided the requisite documents and therefore should not be allowed. Regarding rate of Interest on Working Capital, RPSCL has claimed different/higher than to be allowed considering prevailing SBI MCLR. The Petitioner has not provided the coal data in terms of the Commission's direction during the last public hearing in the matter.

Commission's View

3.41. **The Commission has considered all the issues raised by the Stakeholders and Petitioner's response to these issues while carrying out the detailed analysis and dealt these issues in the Order.**

4. PETITIONER SUBMISSION

4.1. The Petitioner as per the direction of the Commission resubmitted the revised MYT and ARR petition for FY 2019-20 to FY 2023-24 via amended Petition No. 1578/2020 on May 25, 2022, along with Audited Account for the period of FY 2019-20 and FY 2020-21 and provisional accounts for FY 2021-22. The Summary of the Petition is tabulated below:

Table 3 Annual Fixed Cost Projected by the Petitioner (in Rs. Crore)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	257.12	257.57	258.03	258.03	258.03
Interest on Loan	200.81	164.01	127.61	84.99	45.61
Depreciation	370.88	373.76	373.52	373.52	373.52
O & M Expense	337.30	346.64	358.88	371.75	384.76
Interest on Working Capital	105.39	105.43	105.49	105.50	105.44
Total	**1273.5**	**1247.41**	**1223.53**	**1195.33**	**1164.31**

5. REGULATORY FRAMEWORK

5.1. The Electricity Act, 2003 (hereinafter referred to as EA, 03) came into effect from June 10, 2003 which repealed all the erstwhile electricity Acts in the country viz. Indian Electricity Act, 1910 (9 of 1910), The Electricity (Supply) Act, 1948 (54 of 1948) and the Electricity Regulatory Commissions Act, 1998 (14 of 1998). Under section 61 of EA, 2003, the State Electricity Regulatory Commissions require to notify terms and conditions for the determination of tariff of generation, transmission & distribution. Section 86 of the Act mandates the Electricity Regulatory Commission to determine tariff in respect of Generating Companies and Licensees.

5.2. In the exercise of powers conferred under 181 read with the provisions of section 61 of the EA 2003, UPERC notified UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009 (hereinafter referred to as Generation Regulations, 2009) w.e.f. April 01, 2009, amended on March 20, 2012, which remained effective till March 31, 2014. The Commission further notified the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulations, 2014 have been notified on December 16, 2014. Further, the Uttar Pradesh Electricity Regulatory Commission (Terms

and Conditions of Generation Tariff) Regulations, 2019 was notified on September 11, 2019. These Regulations are applicable for the determination of Tariff for a generating station or a unit thereof required to be determined by the Commission under Section 62 of the Act read with Section 86 thereof from April 1, 2019, to a period of 5 years up to March 31, 2024, unless reviewed earlier or extended by an Order of the Commission.

MYT and ARR for FY 2019-20 to FY 2023-24

Provision under Regulations

6.1. The Commission in its Order dated August 22, 2017 has considered capital cost of the whole project for determination of tariff for the MYT period FY 2014-15 to FY 2018-19 i.e., tariff for Stage-I + Stage-II as a whole. Accordingly, the Commission is of the view to consider similar approach in subsequent MYT control period i.e., from FY 2019-20 to FY 2023-24 in accordance to UPERC Term & Condition of Generation Tariff Regulations, 2019.

6.2. The Operational Norms for Thermal Generating Stations viz. Availability, Plant Load Factor, Station Heat Rate, Auxiliary Consumption, Secondary fuel oil consumption and Transit Losses has been considered as per Regulation 26 of UPERC Term & Condition of Generation Tariff Regulations, 2019 for determining Tariff for the Period from FY 2019-20 to FY 2023-24 for RPSCL (Stage I & II- 4X300 MW).

Gross Fixed Asset

Petitioner's Submissions

6.3. The Petitioner in its amended Petition no. 1578 of 2020 has claimed an additional expenditure of Rs. 19.49 Crore related to the Ash Pond Works. It has further submitted that raising of Ash Dyke falls within the scope and purview of Regulation 22 (2) (iv) and (vi) of the UPERC Tariff Regulations, 2014 and the same are being reproduced as follows:

"(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature for new or existing projects actually incurred after the cutoff date may be admitted by the Commission, subject to prudence check:

....

(iv) Deferred works relating to ash pond or ash handling system in the original scope of work.

....

(vi) Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level; and"

6.4. Furthermore, the Petitioner has submitted that Ash Dyke has been in operation since 2010. In due course of the operation of the Thermal Power Plant, the capacity of Lagoon-1 and Lagoon-2 got exhausted by March 2016. Lagoon-1 was completely filled and some capacity was left in Lagoon 2 therefore, any delay in Bund raising would have affected the plant operation. Therefore, the works of Lagoon-1, 2nd raising had been taken up by elevating the bund wall by height of 6 mtrs to attain a volume of around 12.5 Lakh cubic meters (usable qty of ash 8.8 Lakh MT). The said work of bund raising was completed in FY 2020-21. The completed cost of lagoon 1- 2nd raising is Rs. 19.49 Cr. In view of the finalization of FY 2021-22 annual accounts, Auditor's Certificate with respect to Additional Capitalization shall be submitted shortly. RPSCL has craved the liberty of the Commission to submit necessary documents including Auditor Certificate in due course of time.

6.5. Under MoEFCC Notification 2021, RPSCL's TPP falls under the category of TPPs having ash utilization of 60% to 80% in FY 2021-22 covered by Clause A(4) thereof. Accordingly, RPSCL's TPP has to achieve average 100% ash utilisation in a 4 years' cycle i.e., FY 2022-23 to FY 2025-26. Minimum 80% ash utilization has to be achieved in FY 2022-23 qua ash generated during such year.

6.6. Legacy ash has to be utilized progressively to ensure complete utilization within 10 years from 31.12.2021. Minimum legacy ash utilization in % terms against ash generated during a particular year is 20% in 1st year, 35% in 2nd year and 50% during 3rd to 5th year.

6.7. The above targets indicate that sufficient capacity is required in ash dyke for dumping ash generated during a particular year (over next 4 years) and legacy ash (over 10 years) till 100% ash utilization is achieved.

6.8. MoEFCC Notification 2021 does not imply that a plant is barred from dumping ash in dyke from day 1. Instead, appreciating the difficulty involved in such mega shift, 2nd to Clause A(4) provides that minimum utilization percentage of 80% shall not apply to the first year and first two years of the first compliance cycle for the thermal power plants in the utilization category of 60%-80% and <60% respectively. 3rd proviso to Clause A(4) of MoEFCC Notification 2021 provides that 20% of ash generated in the final year of a compliance cycle can be carried forward to the next cycle for utilization in the next 3 years along with ash generated in that cycle.

6.9. By way of the notification dated 30.12.2022, issued amending the MoEFCC Notification 2021, provision for additional "operational ash ponds/ dyke" for

"temporary storage" has been made. Since there is no additional land available at TPP, raising of existing dyke is needed to comply with ash utilization timelines prescribed by MoEFCC.

6.10. While the responsibility for 100% utilization of ash vests with RPSCL, the same is majorly dependent on constructive contribution from other stakeholders. Continuous efforts to increase ash utilization are being made by RPSCL by identifying promotional schemes for fly ash utilization. RPSCL also installed facilities to ramp up fly ash utilization.

6.11. During FY 2018-19 to FY 2020-21, RPSCL achieved ash utilization of more than 100%. During FY 2021-22, ash utilization was at 79%. Till January 2023, RPSCL achieved ash utilization of 89% and is targeting to achieve 100% utilization during FY 2022-23.

Commission's Analysis and decision

6.12. Relevant extracts of the Tariff Regulations 2019 are reproduced below for ready reference

> *"20. Additional capitalization:*
>
> ...
>
> *(2) Subject to the provisions of clause (3) of this Regulation,* ***the capital expenditure of the following counts for new or existing projects actually incurred after the cutoff date may be admitted by the Commission, subject to prudence check:***
>
> ...
>
> *(v) Deferred works relating to ash pond or ash handling system in the original scope of work;*
>
> *(vi) Raising of ash dyke as a part of ash disposal system;"*

6.13. In terms of Regulation 20(2) of the Tariff Regulations 2019 above, any additional capital expenditure can be capitalized only if it is (a) actually incurred and (b) subject to prudence check.

6.14. As regards actual incurrence of capital cost, RPSCL has placed on record auditor's certificate dated 10.02.2023 along with its rejoinder. From a perusal of the auditor's certificate, it is evident that out of the total additional capitalization of ₹19.49 crores claimed by RPSCL, an amount of around ₹16.73 crores was paid to a single vendor by the name of *"CLE Private Limited (Formerly known as Crest Logistics and Engineers Private Limited"*.

As it is evidenced by disclosure made by the aforesaid Crest Logistics and Engineers Private Limited to the National Stock Exchange of India Limited on 15.03.2013, as available in public domain, the said entity was also formerly known as *"REL Utility Engineers Private Limited".*

6.15. Under the order dated 04.02.2020 in Petition No. 1233 of 2017, this Hon'ble Commission held that REL Utility Engineers Limited appears to be a related party. Relevant extracts of this Commission's findings under the order dated 04.02.2020 are reproduced below for ready reference –

> *"16.4 Issue 4: Approval of additional capital expenditure during 2014-15 to 2016-17*
>
> *Commission's view:*
>
> ...
>
> *(c) Out of three entities who submitted their bids,* ***Reliance Utility Engineers Private Limited's ("RUEPL"), which was later changed to REL Utility Engineers Ltd. appears to be a related party to the petitioner, Rosa Power Supply Company ltd****, as can be seen from Annual Accounts of Reliance Infrastructure Ltd (formerly known as RUEPL). Its offer was considered to be closest to the proximity with the scope of the bid and therefore the deviation in the bids of other entities were loaded with the variation price from the bid submissions made by RUEPL"*

6.16. Regulation 20(2) of the Tariff Regulations 2019 prescribes that any capital expenditure can be capitalized only subject to prudence check. In this regard, Regulation 17(6) of the Tariff Regulations 2019 prescribes that any capital expenditure incurred through related parties without prior approval of the procurer shall be excluded from the capital cost. Relevant extracts of Tariff Regulations 2019 are set out below for ready reference –

> *"(6) Prudence Check of Capital Cost: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:*
>
> ...
>
> ***Provided that any capital expenditure incurred on the project through any related parties, as defined in the Companies Act, 2013, without prior approval of the***

procurer shall be excluded from the Capital cost."

6.17. Applying the above regulation, approximately ₹16.73 crores out of ₹19.49 crores of additional capital cost claimed by RPSCL ought to be disallowed straightaway as the said amount has been incurred through an entity which is admittedly a related party of RPSCL as held by this Commission in its order dated 04.02.2020 in Petition No. 1233 of 2017.

6.18. RPSCL's reliance on this Commission's order dated 06.04.2021 in Petition No. 1390 of 2018 is wholly inappropriate and misleading. As stated by RPSCL, under the said order, it was never this Commission's finding that the additional capital expenditure incurred on account of Lagoon 2 (1st raising) was being considered by it or that Lagoon 1 (2nd raising) was underway and would be completed by October 2019 with an estimated cost of ₹20 crores. The only finding of this Hon'ble Commission under the order dated 06.04.2021 qua ash dyke height raising was that subject to prudence check at the time of true-up, actual expenditure incurred would be considered.

6.19. **Considering that the nature of the transaction, the Commission thus disallows RPSCL's claims for additional capitalization at this stage (i.e., the stage of tariff determination) and directs RPSCL to approach this Commission at the true-up stage along with all UPPCL's consent and all relevant and supporting documents.**

6.20. Therefore, the Commission has considered the Closing Balance of FY 2018-19 as the opening balance of FY 2019-20 for the purpose of GFA calculation and accordingly approve the capitalization and Gross Fixed asset

Table 5 GFA approved by the Commission (in Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening GFA	6519.73	6519.73	6519.73	6519.73	6519.73
Add Cap	0	0	0	0	0
Discharge of Undischarged liability	0	0	0	0	0
Net Addition	0	0	0	0	0
Closing GFA	6519.73	6519.73	6519.73	6519.73	6519.73

2.1 **Return on Equity**

Petitioner Submission

6.21. The Petitioner submitted that the equity base for the thermal power station as of 01.04.2019 has been considered as the closing equity balance for FY 2018-19 as approved by the Commission in its final true-up order for FY 2018-19 and thereafter 30% of the total capitalization has been considered to be funded from equity infusion in each year of the control period. Furthermore, the Petitioner has considered 0.5% of additional RoE on and above the base rate of 15% on account of early commissioning of the Project.

Commission's Analysis and decision

6.22. Under the present petition, RPSCL has taken opening equity base as ₹1658.85 crores which was closing equity base in FY 2018-19. The Closing equity base in FY 2018-19 has been changed from ₹1658.85 crores to ₹1669.16 crores under the order dated 11.01.2023 in Petition Nos. 1849 & 1851 of 2022 (**Review Order**).

6.23. Further, RPSCL has considered Rs. 5.85 crores being 30% of Rs. 19.49 crores of additional capitalization as addition to equity during FY 2020-21. **In view of the decision of the Commission with regard to the admissibility of any additional capital cost claimed by RPSCL, no additional equity over and above Rs. 1669.16 Cr has been considered by the Commission in this MYT Order.**

6.24. Additionally, while this Hon'ble Commission has reduced base rate of return on equity (**ROE**) from 15.5% to 15%, RPSCL has also taken a stand that the Tariff Regulations 2019 are silent on the aspect of additional ROE of 0.5% on account of early commissioning. RPSCL has relied on findings of this Commission's common order dated 22.08.2017 issued in Petition No. 967 of 2014 for true-up of tariff for TPP's Stage-I for FY 2009-10 to FY 2013-14, Petition No. 968 of 2014 for fixing tariff of TPP's Stage-II for FY 2011-12 to FY 2013-14, Petition No. 1016 of 2015 for fixing tariff of TPP's Stage-I & Stage-II for FY 2014-15 to FY 2018-19 (**Tariff Order 2017**). RPSCL has staked claim for rate of ROE as 15.5% i.e., 15% base rate of ROE as per Tariff Regulations 2019 + 0.5% rate of ROE for early commissioning as per Tariff Order 2017.

6.25. Regulation 24 (i) of Tariff Regulations 2019 clearly stipulates that rate of ROE would be 15% and there is no provision for allowing any additional rate of ROE on any count. The regulations are not silent. Regulation 24(i) of the Tariff Regulations 2019 is reproduced herein below:

"24. Capacity (Fixed) Charge:

...

(i) Return on Equity

Return on equity shall be computed in rupee terms on the equity base determined in accordance with these Regulations @ 15% per annum;

Provided that the rate of return of a new project shall be reduced by upto 1% for such period as maybe decided by the Commission, if the generating station is found to be declared under commercial operation without commissioning of any of the ***Restricted*** *Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch center or protection system based on the report submitted by SLDC;*

Provided also that as and when any of the above requirements are found lacking in an existing generating station based on the report submitted by the SLDC, RoE may be reduced by up to 1% for such period as may be decided by the Commission;

Explanation: The premium raised by the generating company while issuing share capital and investment of internal resources ***created*** *out of free reserve of the generating company, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station and forms part of the approved financial package."*

6.26. Further, the Statement of Reasons dated 23.09.2019 (**SOR**) to the Tariff Regulations 2019, may also be referred to:

"1.4 *The Commission held a public hearing on July 05, 2019 at 3:30 pm at the Commission's Office, Lucknow in which stakeholders submitted their comments and suggestions. The comments / suggestions offered by the stakeholders on the then proposed Regulations and the Commission's decision thereon are discussed hereunder:*

Particulars	*Draft Regs No.*	*Comments of the Stakeholders*	*Commission's view*
...			

Particulars	Draft Regs No.	Comments of the Stakeholders	Commission's view
Tariff Determination Process			
...	...	...	...
Return on Equity (ROE)	27(iii)	... 2. LPGCL – ***To allow the RoE at 16.00%*** per annum (15.5% for ROE ***plus 0.50% additional for early completion of the projects***) ***since, investment decision by promoter and bankers were taken when the ROE was (15.5 + 0.50%). If ROE is reduced now, it will not only reduce the return on investment but also create an environment of uncertainty (Regulatory and Financial). Also, considering the present status of power projects across the country, higher risk is associated with the existing and new projects owing to macroeconomic changes, uncontrollable factors, pending litigations etc. are relatively higher for projects based on cost-plus model So, the same ROE of 16% (15.5% + 0.5%) needs to be continued.*** ... 5. RPSCL – ***RoE be retained as 15.5% in light of National Tariff Policy.*** ... 6. UPPCL – ***Requested to limit RoE for Generation business to 13% post-tax per annum***...	***Please refer to Annexure-I.***

6.27. As it is clear from the above quoted and highlighted extracts, the plea for continuing 0.5% additional rate of ROE early commissioning was raised before this Commission at the stage when the Tariff Regulations 2019 were being framed. Additionally, in an attempt to justify retaining the prevailing

rate of ROE at 16% (i.e., 15.5% + 0.50%), the stakeholders made a variety of submissions including that reduction of rate of ROE would amount to creating an environment of regulatory uncertainty because the investment decision by the promoters and bankers was taken at a time when the rate of ROE was 16% (i.e., 15.5% + 0.5%). It was also submitted that considering the present status of power projects across the country and owing to higher risk associated with existing projects under the Section 62 regime due to macroeconomic changes, uncontrollable factors, pending litigations, etc., rate of ROE needs to be continued at 16% (i.e., 15.5% + 0.5%) and that in view of the National Tariff Policy 2016, 15.5% base rate of ROE needs to be continued. From the aforesaid, it is clear that the issue of non-grant of additional 0.5% rate of ROE was brought to the notice of this Commission. Therefore, it cannot be alleged at this stage that deletion of such provision allowing grant of additional 0.5% rate of ROE was inadvertent on the part of this Commission or that the Tariff Regulations 2019 are silent on this aspect.

6.28. Clearly, while framing the Tariff Regulations 2019, this Commission took a conscious and well-informed decision to reduce the rate of ROE from 15.5% to 15% and to delete the provision allowing 0.5% as additional rate of ROE for early commissioning. In restricting the rate of ROE to 15% under the Tariff Regulations 2019, the Commission followed a transparent and well-informed exercise which is backed by sound legal, economic and technical justification, as elaborated under Annexure-I to the SOR to Tariff Regulations 2019. Such justifications have been set out by the Commission to repel the allegations of regulatory uncertainty, hardship, etc. claimed by the generators at the time of framing of the Tariff Regulations 2019.

6.29. The Hon'ble Supreme Court's judgement issued in the case of ***Reliance Infrastructure Limited v. State of Maharashtra*** reported as **(2019)3 SCC 352** [Paras 38 & 40], may be referred to in this regard, wherein it was held that the decision of an expert body, such as this Commission, should not be interfered with if a particular line of logic or rationale has been picked on an appraisal of all guiding principles. In the present case, the Commission being the expert body tasked with framing the tariff regulations i.e., subordinate legislation had a range of options including policy options. Upon taking into consideration guiding factors including the National Tariff Policy 2016 and the suggestions of the stakeholders including RPSCL as well, the Commission employed the Capital Asset Pricing Model model, loaded additional market premium of 300 basis points and determined the rate of ROE as 15% only without any additional ROE of 0.5% for early commissioning.

6.30. **Therefore, considering that on an appraisal of all guiding principles, this Hon'ble Commission has chosen a particular line of logic or rationale where the rate of ROE has been limited to 15% only without any additional ROE of 0.5% for early commissioning, there is no question of granting the same at this stage by exercising powers contrary to law i.e., sub-ordinate legislation framed by the Commission itself.** Relevant extracts of the aforesaid judgment are reproduced below for ready reference:

> *"38. **MERC is an expert body which is entrusted with the duty and function to frame regulations, including the terms and conditions for the determination of tariff.** The Court, while exercising its power of judicial review, can step in where a case of manifest unreasonableness or arbitrariness is made out. Similarly, where the delegate of the legislature has failed to follow statutory procedures or to take into account factors which it is mandated by the statute to consider or has founded its determination of tariffs on extraneous considerations, the Court in the exercise of its power of judicial review will ensure that the statute is not breached. **However, it is no part of the function of the Court to substitute its own determination for a determination which was made by an expert body after due consideration of material circumstances.***
>
> ...
>
> *40. We commenced our discussion by emphasising, in our prefatory observations, **that the power to frame regulations is of a legislative nature.** The CPRI report was an input before MERC in carrying out that exercise. **MERC followed the statutory procedures laid down for the determination of tariffs. It took into account factors which it is mandated by the statute to consider. The National Tariff Policy, suggestions of stakeholders** as well as the assessment carried out by CPRI were duly considered. Hence, the present case does not fall in the paradigm of manifest unreasonableness or arbitrariness to warrant the interference of this Court. It would be rather formulaic for the Court to accept that merely because DTPS was placed on a par in the immediately previous period (2006-07) and the period immediately succeeding (2016-20), that this must necessarily be extrapolated to the intervening period governed by the MYT Regulations, 2011. **A body which is entrusted with the task of framing subordinate legislation has a range of options including policy options. If on an appraisal of all the guiding principles, it has chosen a particular line of logic or rationale, this Court ought not to interfere.**"*

6.31. Further, RPSCL has argued that as approved under earlier tariff orders dated 28.03.2011 in Petition No. 706/2010 and Tariff Order 2017, rate of

ROE should be 15% (base) + 0.5% (incentive for early commissioning) as the additional 0.5% ROE was approved for the entire term. In this regard, it may be noted that early commissioning incentive was allowed by the Commission under the earlier tariff orders strictly in line with the prevailing tariff regulations which had permitted grant of such incentive. Pertinently, it is an indisputable fact that the Tariff Regulations 2019, which are applicable for the current control period, do not provide for any such incentive. Relevant extracts of the Tariff Order 2017 as well as True-Up Order 2022 are reproduced below for ready reference:

(i) Extracts from Tariff Order 2017:

"2. Background

...

2.2 EARLIER ORDERS OF THE COMMISSION:

...

2.2.9 RPSCL filed Petition No. 706 of 2010, for the approval of final tariff for Stage-1 for period from FY 2009-10 to FY 2013-14. Detailed content of the order dated March 28, 2011 is reproduced below for reference,

*(e) In Order dated May 17, 2010, commission had provisionally approved 16% ROE **including 0.5% for early commissioning for maintaining the level playing field as per the prevailing regulation.** Hence, going with aforesaid, the Commission made the following observation,*

...

2.2.10 In petition No. 706 of 2010, commission vide its order dated March 28, 2011, approved final tariff for Stage-1 for period from FY 2009-10 to FY 2013-14 subject to prudence check of capital cost at the time of filing of tariff petition for next tariff period.

For the reference, in following tables, the components of fixed charges, norms of operation as agreed in the PPA and as approved by the Commission is shown,

- *The components of fixed charges as per PPA, as per Regulations and as admitted by the Commission for the purpose of calculation of tariff,*

Sl. No.	*Component of Fixed Charge*	*Approved in PPA*	*As per Regulations, 2009*	*Approved in Order dated 28.03.2011*
...	...	...	...	...

5.	Return on Equity (RoE)	14.00%	15.5% + 0.5%	15% + 0.5%

...

2.2.13 ***In petition No. 787 of 2012, commission vide its order dated May 21,2012 approved provisional tariff for Stage-II same as Stage-I for the period from COD to the date, when final tariff is approved by the commission as agreed by both the parties.*** *A relevant extract of the Commissions direction is reproduced below for reference,*

...

3. *KEY ISSUES INVOLVED IN THE PROCEEDINGS*

...

3.1.4 *The petitioner in petition No. 660 of 2010 for approval of provisional tariff for Stage-I,* ***requested the Commission for increase of RoE to 16.00% from 14.00% as per the Regulations, 2009 only****, as the petitioner was allowed to approach the Commission for specific relief, under the Regulations and amendments thereof, if such provision or remedy was not available in the power purchase agreement signed between them. There was no provision for revision of RoE in PPA and also there was no case for remedy, in absence of undesirable situation, as far as RoE was concerned. However, considering the plea for level playing field, the Commission allowed increased RoE of 16.00%, but while allowing increased RoE, the Commission categorically took the view that the Generator cannot be allowed to get the best from the both. The details are as follows:*

> *"The Commission opines that the norms of operations* ***or other factors should be guided in totality either from the PPA or from the Regulations. The Generator cannot be allowed to get the best from the both****. There is no question that whether Regulations would prevail over PPA or not because Regulation 2(5) clearly specifies that the Regulations are in addition to and not in derogation to the Terms & Conditions of determination tariff approved by the Commission in a PPA. In this case the Petitioner desires RoE as provided in the Regulations which is higher than what has been agreed under the PPA.* ***The Petitioner has structured its claim on the basis of provisions of Regulations, 2009*** *supported by its plea to allow a level playing field. It would be discouraging for the generator if 15.5% RoE, as provided under the Regulation, is not allowed as it would be a deterrent to level playing field for such a Generator who has commissioned the plant ahead of the schedule. It is also pertinent to consider the revision of norms of operation with higher RoE but since the plant is still to be stabilized, it would not be appropriate*

to revise the same at this point of time. Although, to keep the level playing field, the norms of operation may be considered for revision at the time when the Petitioner would approach the Commission for the same. Therefore, the Commission decides to consider RoE 15.5% provisionally for calculation of provisional tariff. The Respondent has contested the incentive for early commissioning although there is no specific provision agreed under the PPA for the same. In case of commissioning ahead of schedule, regulation 23 (3) provides the eligibility for incentive equal to amount of reduction in interest during construction recoverable through tariff in twelve monthly instalments during first year of operation. ***However, Regulation 21 (iii) provides an additional amount of 0.5% for the projects approved by the Commission before 1.4.2009, in absence of any provision made in PPA. As the plea of Petitioner to provide level playing field has been accepted by the Commission, it would be appropriate to provisionally approve 0.5% additional RoE as incentive for early commissioning.****"*

...

6. *FIXATION OF TARIFF FOR 2X300 MW ROSA THERMAL POWER PLANT STAGE II FOR THE PERIOD FY 2011-2012 TO FY 2013-14*

...

6.2 *TARIFF DESIGN AND APPROACH FOR DETERMINATION OF TARIFF*

...

6.2.2. ***Return on Equity has been considered as 16.0 % as provided in Regulation 21 (iii) in the UPERC Generation Tariff Regulations, 2009.***

...

6.3.2. *Annual Fixed Charges as determined by the Commission are as follows:*

i. *Fixed Charges*

For determination of components of fixed charges for MYT period from FY 2011- 12 to FY 2013-14 for Stage-II, the Commission opines that the parameters as provided in UPERC (Terms and Conditions of Generation Tariff) Regulations 2009 and its amendments, will be applicable. Hence, in view of the above the Commission has decided to allow the components of fixed charges as below:

Sl. No.	*Component of Fixed Charge*	*Value*	*Remark*
...	...	...	...
4	***Return on Equity (RoE)***	*15.5%* ***+ 0.5%***	***As per Regulations, 2009***

...

7. FIXATION OF TARIFF FOR 4X300 MW ROSA THERMAL POWER PLANT STAGE I &II FOR THE SECOND CONTROL PERIOD FY 2014-15 TO FY 2018-19

...

7.2 TARIFF DESIGN AND APPROACH FOR DETERMINATION OF TARIFF for MYT PERIOD FROM FY 2014-15 to FY 2018-19

...

7.2.3 **Return on Equity has been considered as 16.0 % as provided in Regulation 25 (iii) in the UPERC (Terms and Conditions of Generation Tariff) Regulations 2014.**

...

7.3.2 Annual Fixed Charges as determined by the Commission are as follows:

I. Fixed Charges

For determination of components of fixed charges for MYT period from FY 2014-15 to FY 2018-19 for Stage-I and Stage-II, the Commission opines that the parameters as provided in UPERC (Terms and Conditions of Generation Tariff) Regulations 2014, will be applicable. Hence, in view of the above the Commission has decided to allow the components of fixed charges as below:

Sl. No.	Component of Fixed Charge	Value	Remark
...	...	...	...
4	**Return on Equity**	15.5% ± **0.5%**	**As per MYT Regulations 2014- 15 to FY 2018-19**

(ii) Extracts from True-Up Order 2022

"3.3 Truing-up of 4x300 MW ROSA TPP (Stage I and Stage II) for FY 2014-15 to FY 2018-19

...

Return on Equity

...

Commission's Analysis:

3.3.37 Further, **the Petitioner is entitled to earn Return on Equity (RoE) as per Regulation 25 of the UPERC Generation Tariff Regulations, 2014**. In this regard, the Regulation 25(iii) of the UPERC Generation Tariff Regulations, 2014 provides that:

...

3.3.38 The rate of return on equity has been considered as 16% (15.50% + 0.50%) as approved by the Commission in Order dated 22.8.2017 in Petition No. 967/2014, 968/2014 and 1016/2015."

6.32. Further, additional rate of ROE of 0.5% has not been approved perpetually for the life of the TPP notwithstanding the provisions of any future regulations as contended by RPSCL. Therefore, it would be impermissible & contrary to law if additional rate of ROE of 0.5% is approved for FY 2019-24 dehors the Tariff Regulations 2019 by placing reliance on the previous orders of this Commission. Even the True-Up Order 2022 explicitly recognizes that additional rate of ROE for early commissioning was being approved as per the Tariff Regulations 2014. Further, such reference has been made merely because under the True-Up Order 2022, the Commission was concerned with truing up of tariff determined under the Tariff Order 2017 in the first place limited to control period FY 2014-19.

6.33. **RPSCL's reliance on Regulation 2(4) of the Tariff Regulations 2019 to argue that the Commission can be approached for hardship caused due to discrepancy/ inconsistency between parameters under a PPA approved prior to 01.04.2019 is also misplaced. Any allegations of hardship due to reduction of rate of ROE by 1% (i.e., due to reduction of rate of ROE from 15.5% to 15% and deletion of provision allowing additional 0.5% additional ROE due to early commissioning), have already been addressed by this Commission under the SOR to Tariff Regulations 2019.**

6.34. **The Commission has approved ROE @ 15.00% in terms of UPERC Generation Regulation, 2019.** Accordingly, the Return on Equity to the Petitioner has been projected below:

Table 5 Return on Equity approved by the Commission (in Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Approved	Approved	Approved	Approved	Approved
Opening Equity	1669.16	1669.16	1669.16	1669.16	1669.16
Addition	0.00	0.00	0.00	0.00	0.00
Closing Equity	1669.16	1669.16	1669.16	1669.16	1669.16
Average Equity	1669.16	1669.16	1669.16	1669.16	1669.16
Rate of Return	15.00%	15.00%	15.00%	15.00%	15.00%
Return on Equity	250.37	250.37	250.37	250.37	250.37

2.2 Interest on Loan

Petitioner Submission

6.35. The Petitioner has computed interest on the loan in accordance with the approach mentioned in regulation 24 (ii) of Tariff Regulations. Furthermore, the interest rate has been considered the weighted average rate of interest rate has been considered the weighted average rate of interest on loan the project loan portfolio projected for FY 2019-20 to FY 2023-24. To arrive at the opening loan balance as on 01.04.2019, the opening loan balance of FY 2014-15 as approved in True up order dated 25.02.2022 has been considered and subsequent addition as 70% of the addition in capital cost on account of capitalization has been considered.

Commission's Analysis and decision

6.36. RPSCL has considered Rs. 13.64 crores as increase in its debt figures during FY 2020-21. The same corresponds to 70% of the additional capital cost of Rs. 19.49 crores claimed by RPSCL. **In view of the decision of the Commission with regard to the admissibility of any additional capital cost claimed by RPSCL, no additional equity over and above Rs. 1669.16 Cr has been considered by the Commission in this MYT Order.**

6.37. Further, RPSCL has taken opening debt base as Rs. 2119.96 crores which was closing debt base in FY 2018-19. The Commission by way of the Review Order has changed the closing debt base in FY 2018-19 to 2109.65 crores.

6.38. Under the present petition, RPSCL has admitted that it has computed the interest on loan component by considering weighted average rate of interest of project loan portfolio projected for FY 2019-20 to FY 2023-24. Under its rejoinder, RPSCL submitted that while in its petition, it had inadvertently stated that the interest rate has been considered basis weighted average rate of interest of project loan portfolio projected for FY 2019-20 to FY 2023-24, it has considered actual loan portfolio at the beginning of each financial year for FY 2019-20 to FY 2023-24.

6.39. Clause 24 (ii) of UPERC Generation Tariff Regulation, 2019 provided the basis for the computation of Interest on loan capital. The Commission accordingly determines the Interest on loans for the control period of FY 2019-20 to FY 2023. Clause 24 (ii) is reproduced below:

(ii) Interest on loan capital

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in these Regulations.

(b) The loan outstanding as on 1st April 2019 shall be worked out as the gross loan as per these Regulations minus cumulative repayment as admitted by the Commission up to 31st March 2019. The repayment for any financial year during the tariff Period shall be deemed to be equal to the depreciation allowed for that financial year.

In case of de-capitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.

(c) The rate of the interest shall be the weighted average rate of interest calculated on the basis of actual loans at the beginning of each financial year and shall be adjusted based on actual loan each financial year accordingly.

(d) If there is no actual loan for a particular financial year but normative loan is still outstanding, the last available weighted average of interest shall be considered.

(e) The Generating company shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company in the ratio of 50:50. The above facts shall be certified by statutory Auditor.

(f) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries

(g) In case any moratorium period is availed of by the generating company, Depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(h) In case, the generating company has contracted floating/ variable rate of interest on loan resetting at certain interval of time the impact of change in rate of interest shall be assessed by the generating company on account of such resetting duly certified by statutory auditor and the capacity charge of the relevant financial year shall be adjusted for such impact and billed accordingly to beneficiary without approaching the Commission for change in tariff on this account.

Provided if the generating company does not have actual loan or have re-financed the loan resulting in no specific loan attributable to the generating station then the weighted average rate of interest of the generating company as a whole shall be considered.

Provided also in case of dispute, any party to such dispute may approach the Commission with proper application and it shall be ensured that the payment to the generating company is not withheld during pendency of the dispute.

6.40. **The Commission has considered the outstanding loan as of 1st April 2019 as the opening loan for FY 2019-20 and the repayment for the control period shall be equal to the depreciation allowed for the year. The Commission has considered the weighted average rate of interest of project loan portfolio as submitted by RPSCL. These rates would be subject to True-up at the time of True-up of FY 2019-24.**

Table 6 Interest on Loan as approved by the Commission (in Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Approved	Approved	Approved	Approved	Approved
Opening Balance	2109.66	1736.78	1363.91	991.03	618.15
Addition	0.00	0.00	0.00	0.00	0.00
Repayment	372.88	372.88	372.88	372.88	372.88
Closing Balance	1736.78	1363.91	991.03	618.15	245.28
Average Loan	1923.22	1550.35	1177.47	804.59	431.72
Interest Rate	10.39%	10.47%	10.63%	10.47%	9.39%
Interest on loan	199.82	162.32	125.16	84.24	40.54

2.3 Depreciation

Petitioner Submission

6.41. The Petitioner submitted that depreciation has been worked out in accordance with the Tariff Regulation and has been calculated on the opening level of GFA of FY 2019-20 as approved by the Commission in the True Up order dated 25.02.2022 as well as on the assets added during the year in the current control period.

Commission's Analysis and decision

6.42. The UPERC Generation Tariff Regulation, 2019 provides the following for the determination of Depreciation:

"24 (iii)Depreciation
For the purpose of tariff, depreciation shall be computed in the following manner, namely:

(a) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof. In case of the tariff of all the units of a generating station for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station taking into consideration the depreciation of individual units c elements thereof.

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station for which single tariff needs to be determined.

(b) The value base for the purpose of depreciation shall be the capital cost of the asset as admitted by the Commission. In case of multiple units of a generating station weighted average life for the generating station shall be applied. Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(c)The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of asset.

Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the station.

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long- term power purchase agreement at regulated tariff.

(d) In case of new projects, depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the rates prescribed in Appendix III to these Regulations.

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

Provided also that any depreciation disallowed on account of lower availability of the generating station shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(e) In case of the existing projects, the balance depreciable value as on 01.04.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets. The rate of depreciation shall be continued to be charged at the rate specified in Appendix III till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

(f) The generating company shall submit the details of proposed capital expenditure during the fag end of the project (five years before the completion

of useful life) along with justification and proposed life extension. The Commission, based on prudence check of such submissions, shall approve the depreciation on capital expenditure during the fag end of the project.

(g) In case of de-capitalization of assets in respect of generating station or unit thereof the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

6.43. The Commission for the purpose of calculation of depreciation has considered clause 24 (iii) UPERF Generation Regulation, 2019. The Commission applied depreciation rates as prescribed in appendix iii of the regulation based on the gross fixed assets and capitalization approved and worked out the depreciation accordingly.

Table 7 Depreciation approved by the Commission (in Crores)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening GFA	6519.73	6519.73	6519.73	6519.73	6519.73
Closing GFA	6519.73	6519.73	6519.73	6519.73	6519.73
Average GFA	6519.73	6519.73	6519.73	6519.73	6519.73
Depreciation	5.72%	5.72%	5.72%	5.72%	5.72%
Depreciation	372.88	372.88	372.88	372.88	372.88

2.4 Operation & Maintenance Expense

Petitioner Submission

6.44. The Petitioner submitted that O&M expenses for the Control Period have been considered as per the O&M norms applicable for 300MW Unit as per Regulation 24 (iv) of the Tariff Regulations, 2019.

6.45. Furthermore, the Petitioner submitted that Regulation 33 allows it to claim Application fee and Statutory charges separately. Accordingly, the same has also been considered based on the actual cost incurred during FY 2019-20 to FY 2021- 22 and projection for FY 2022-23 to FY 2023-24.

Commission's Analysis and decision

6.46. In line with the Regulation 24 (iv) UPERC Tariff Regulation, 2019 the Commission has determined the Operation & Maintenance expense of the

Petitioner for the Control period of FY 2019-20 to FY 2023-24. The Statutory and Application fee.

Table 8 O&M approved by the Commission (in Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses	27.74	28.71	29.72	30.76	31.84
Installed Capacity	1200.00	1200.00	1200.00	1200.00	1200.00
O&M Expenses	332.88	344.52	356.64	369.12	382.08
Statutory Charge	0.00	0.00	0.00	0.00	0.00
Total O&M	332.88	344.52	356.64	369.12	382.08

2.5 Interest on Working Capital

Petitioner Submission

6.47. The Petitioner submitted that Interest on Working Capital (IoWC) has been computed in line with Regulation 24(v) of Tariff Regulations 2019 which provides detailed constituents comprising the Working Capital and interest thereof. Regarding interest rate, interest rate considered is MCLR+ 350 basis points prevailing as on 01.04.2019 as provided under Tariff Regulations 2019.

Commission's Analysis and decision

6.48. For computing cost of coal and secondary fuel oil, average energy charges for the months January 19, February 19 and March 19 have been considered. The methodology for the calculation of interest on Working capital is described in para 24(v) of the UPERC Generation Tariff Regulation, 2019. Para 24 (v) is reproduced below for the reference:

(V) Interest on Working Capital

(a) Working capital shall be allowed on a normative basis and for coal based generating stations shall include:

(i) Cost of coal towards stock for 10 days for pit-head generating stations and 20 days for non-pit head generating stations corresponding to the Target Availability or maximum coal stock storage capacity, whichever is lower.

(ii) Advance payment for 30 days towards Cost of coal for generation corresponding to the Target Availability.

(iii) Cost of Secondary fuel oil for two months corresponding to the target availability and in case of use of more than one secondary fuel oil stock for the

main secondary fuel oil,
(iv) Operation and maintenance expenses, including water charge for one month
(v) Receivables equivalent to 45 days of capacity charges and energy charges for sale of electricity calculated on the target availability

(b) The cost of secondary fuel in cases covered under sub-clauses (i) and (ii) of clause (a) of this regulation shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel "on as received" basis for the three months preceding the first month of the period for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.
(c) .....
(d) Rate of interest on working capital shall be on normative basis and shall be considered as the Bank Rate as on 01.04.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof is declared under commercial operation, whichever is later.

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(e) Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken loan for working capital from any outside agency.

6.49. In line with the above regulation 25(v), the commission has approved the Interest on Working capital for the five-year control period, i.e. from FY 2019-20 to FY 2023-24.

Table 9 Interest on working Capital approved by the Commission (in Rs. Crore)

Interest on Working Capital	2019-20 Approved	2020-21 Approved	2021-22 Approved	2022-23 Approved	2023-24 Approved
Cost towards 20 daysCoal Stock	126.51	126.51	126.51	126.51	126.51
Advance Payment for 30 Days Coal	189.76	189.76	189.76	189.76	189.76
Cost of Secondary Fuel	3.65	3.64	3.64	3.64	3.65
O&M Expenses 1 Month	27.74	28.71	29.72	30.76	31.84
Maintenance Spares @20% O&M	66.576	68.904	71.328	73.824	76.416
Receivables 45 Days	444.11	441.11	438.17	434.70	430.48
Total Working Capital	858.34	858.63	859.12	859.19	858.65
Rate of Interest	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	103.43	103.46	103.52	103.53	103.47

Summary of fixed charges

6.50. Based on the discussion in the above sections, the Annual Fixed Charges as approved in this MYT Order, subject to True-up, against AFC as claimed in the MYT Petition are tabulated below:

Table 10.1 Annual Fixed charge as claimed by the Petitioner (in Rs. Crore)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	257.12	257.57	258.03	258.03	258.03
Interest on Loan	200.81	164.01	127.61	84.99	45.61
Depreciation	370.88	373.76	373.52	373.52	373.52
O & M Expense	337.30	346.64	358.88	371.75	384.76
Interest on Working Capital	105.39	105.43	105.49	105.50	105.44
Total	**1273.5**	**1247.41**	**1223.53**	**1195.33**	**1164.31**

Table 11.2 Annual Fixed charge approved by the Commission (in Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Approved	Approved	Approved	Approved	Approved
Return on Equity	250.37	250.37	250.37	250.37	250.37
Interest on Loan	199.82	162.32	125.16	84.24	40.54
Depreciation	372.88	372.88	372.88	372.88	372.88
O&M Expenses	332.88	344.52	356.64	369.12	382.08
Interest on Working Capital	103.43	103.46	103.52	103.53	103.47
Annual Fixed Charges	1259.38	1233.56	1208.58	1180.14	1149.34
Ex-bus energy Sent out @85% PLF (MU)	8198.11	8175.71	8175.71	8175.71	8198.11
Fixed charges per unit Rs./Kwhr	**1.54**	**1.51**	**1.48**	**1.44**	**1.40**

Representative Calculation of Variable Charges

6.51. Variable charge per unit of Generation – Variable charge per unit has been calculated for the purpose of calculation of normative working capital. Based on the operation norms provided in the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2019 the variable charge per unit of generation for Rosa Power Station for the MYT period from FY 2019-20 to FY 2023-24 the variable charge per unit of generation has been arrived at based on the actual coal price for month of January 2019, February 2019 and March 2019 as submitted by the petitioner. The calculation shown below is representative of the variable cost calculation and has been used to arrive at some of the components of normative working capital.

Table 12 Variable Charge Projection approved by the Commission.

Particulars	Unit	2019-20	2020-21	2021-22	2022-23	2023-24
Capacity	MW	1200.00	1200.00	1200.00	1200.00	1200.00
PLF	%	85.00%	85.00%	85.00%	85.00%	85.00%
Gross Station Heat Rate	Kcal/kWh	2430.00	2430.00	2430.00	2430.00	2430.00
Auxiliary Energy Consumption	%	8.50%	8.50%	8.50%	8.50%	8.50%
Gross Generation	MU	8959.68	8935.20	8935.20	8935.20	8959.68
Auxiliary Energy Consumption	MU	761.57	759.49	759.49	759.49	761.57
Ex-Bus Energy sent out	MU	8198.11	8175.71	8175.71	8175.71	8198.11
Specific oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50
Wt. Avg. GCV of Oil	Kcal/Lt	9.40	9.40	9.40	9.40	9.40
Price of Oil	Rs./KL	48825.51	48825.51	48825.51	48825.51	48825.51
Wt. Avg. GCV of Coal	kCal/kg	4084.97	4084.97	4084.97	4084.97	4084.97
GCV of Primary Fuel less 85 Kcal/Kg on account of variation during storage	kCal/kg	3999.97	3999.97	3999.97	3999.97	3999.97
Price of Coal	Rs./MT	4261.5	4261.5	4261.5	4261.5	4261.5
Heat Contribution from SFO	Kcal/kWh	4.70	4.70	4.70	4.70	4.70
Oil Consumption	KL	4479.84	4467.6	4467.6	4467.6	4479.84
Heat Contribution from Coal	Kcal/kWh	2425.30	2425.30	2425.30	2425.30	2425.30
Specific Coal Consumption	kg/kWh	0.61	0.61	0.61	0.61	0.61
Coal Consumption	MMT	5.43	5.42	5.42	5.42	5.43
Total Oil Cost	Rs. Cr	21.87	21.81	21.81	21.81	21.87
Total Cost of Coal	Rs Cr	2315.07	2308.74	2308.74	2308.74	2315.07
Total Fuel Cost	Rs Cr	2336.94	2330.56	2330.56	2330.56	2336.94
Rate of Energy Charge from Secondary Fuel Oil ex-bus	Paise/kWh	2.67	2.67	2.67	2.67	2.67
Rate of Energy Charge from Coal ex-Bus	Paise/kWh	282.39	282.39	282.39	282.39	282.39
Rate of Energy Charge ex-bus	Paise/kWh	285.06	285.06	285.06	285.06	285.06

6.52. The Commission also observed that RPSCL is billing fixed charges for the period, so far covered in control period, from 1st April 2019 till date, @ fixed charges approved by the Commission vide its order dated 22.08.2017 and 25.04.2018 in Petition No 967/2014, 968/2014 & 1016/2015 and 1234/2017 wherein this Commission approved the MYT Tariff for the period from FY 2014-15 to FY 2018-19 in Petition No. 973 of 2014, 1036 to 1040 of 2015, 1079 to 1083 of 2016 respectively. The yearly billed amount for FY 2019-24, till date, would depend upon the availability and energy scheduled during different months in the year.

6.53. The carrying cost on the Multi Year Tariff amount for control period FY 2019-20 to FY 2023-24 shall be worked out till the date of order as per the prevailing Bank Rates in terms of Regulation 15(3) of the UPERC Tariff Regulations, 2019. In accordance with the UPERC Tariff Regulations the rate of interest for Carrying Cost shall be equal to the One Year Marginal Cost of Lending Rate (MCLR) of Interest as specified by State Bank of India as on 1st April of the respective year plus 350 basis points for control period 01.04.2019 till the date of order.

Above effective rates are as tabulated below:

Year	Effective Rate of Interest for respective FY
FY 2019-20	12.05%
FY 2020-21	11.25%
FY 2021-22	10.50%
FY 2022-23	11.90%

6.54. The over recovered amount; difference in monthly billing based on 2018-19 approved tariff as per UPERC Generation tariff Regulations, 2014 Vs that as approved in this Order as per UPERC Generation tariff Regulations, 2019 along with Carrying Cost till the date of this Order, in terms of Regulation 15(3), shall be payable by RPSCL to UPPCL in six monthly instalments starting from the next billing cycle.

OTHER PROVISION

RECOVERY OF APPLICATION FEE AND STATUTORY CHARGES

7.1. In addition to the above tariff the Petitioner shall be allowed to recover the payment of statutory charges like electricity duty, water cess, payment to Pollution Control Board, and Regulatory Fee paid to the Commission, on the production of details of actual payments made and duly supported with the certificate of the Statutory Auditors in accordance with Regulation 33 of UPERC Generation Tariff Regulation, 2019.

SHARING OF BENEFITS

7.2. Financial gains shared between the Petitioner and Beneficiaries in accordance with Regulation 34 of UPERC Generation Tariff Regulation, 2019.

INCENTIVE

7.3. Incentive to all thermal power stations shall be at flat rate of 65 Paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target plant load factor.

REBATE

7.4. For payment of bills of capacity charges and energy charges beneficiaries shall be eligible for rebate in accordance with Regulation 37 of UPERC Generation Tariff Regulation, 2019.

LATE PAYMENT SURCHARGE

7.5. For late payment of bills of capacity and energy charges beneficiaries shall pay late payment surcharge in accordance with the Regulation 38 of the Generation Tariff Regulation 2019.

With the above directions, the Petition is disposed of.

(Vinod Kumar Srivastava)
Member (Law)

(Raj Pratap Singh)
Chairman

Place: Lucknow
Date: 16.05.2023

Petition No. 1578 of 2020

BEFORE

THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

(Date of Order: 22.05.2023)

PRESENT:
Hon'ble Shri Raj Pratap Singh, Chairman
Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

IN THE MATTER OF: Petition under Regulation 15 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of Multi Year Tariff for the Control Period FY 2019-20 to FY 2023-24.

M/s Rosa Power Supply Company Limited (RPSCL)

---------**Petitioner**

Uttar Pradesh Power Corporation Ltd. (UPPCL)

--------**Respondent**

CORRIGENDUM ORDER

1. This Corrigendum to the Order dated 16.05.2023, due to certain inadvertent typographical error, is being issued under Regulation 58 (b) of the UPERC (Conduct of Business) Regulations, 2019:

   a) In the table titled" Effective interest rate for FY", at para 6.53, the interest rate of FY 2022-23 may be read as "10.50%" in place of 11.90%" and

   b) Another row, after the row of FY 2022-23, is added as: FY 2023-24 with interest rate of FY 2023-24 as"12.00%".

2. The above inadvertent error is being rectified in the present corrigendum Order.

(Vinod Kumar Srivastava)
Member (Law)

(Raj Pratap Singh)
Chairman

Place: Lucknow
Dated: 22.05.2023

RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

ROSA/UPERC/2024-25/TU-19-24/004 **02/12/2024**

The Secretary
Uttar Pradesh Electricity Regulatory Commission,
UPSLDC Complex
Vibhuti Khand, Gomti Nagar, Lucknow-226010

Sub:- Petition seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2019-20 to FY 2023-24.

Dear Sir,

Kindly find enclosed herewith the Petition on the subject matter in 06 copies (01 original+05 Photo copies), filed by Petitioner Rosa Power Supply Co Ltd, for kind consideration of Hon'ble Commission.

Thanking you,

Yours faithfully,

For Rosa Power Supply Company Ltd

(Sumeet Notani)
Authorized Signatory

CC: The Chief Engineer (PPA), UPPCL.

Encl: As above.

U.P.E.R.C LUCKNOW
DATE 02/12/2024
TIME.....
RECEIVED

1+5 Copy

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Government of Uttar Pradesh

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Certificate No.	:	IN-UP82972810635378W
Certificate Issued Date	:	30-Nov-2024 11:46 AM
Account Reference	:	NEWIMPACC (SV)/ up14172204/ LUCKNOW SADAR/ UP-LKN
Unique Doc. Reference	:	SUBIN-UPUP14172204628287583127 12W
Purchased by	:	ROSA POWER SUPPLY COMPANY LIMITED
Description of Document	:	Article 4 Affidavit
Property Description	:	Not Applicable
Consideration Price (Rs.)	:	
First Party	:	ROSA POWER SUPPLY COMPANY LIMITED
Second Party	:	UPERC
Stamp Duty Paid By	:	ROSA POWER SUPPLY COMPANY LIMITED
Stamp Duty Amount(Rs.)	:	100 (One Hundred only)

BEFORE THE HON'BLE UTTAR RADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2024

IN THE MATTER OF:

Petition under Regulation 16 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2019-20 to FY 2023-24.

Scrutiny and Verified
Before me
AND
Adv. Notary
Lucknow
Regd. No. 31/64/2000

IN THE MATTER OF:

Rosa Power Supply Company Ltd. ...Petitioner

Versus

Uttar Pradesh Power Corporation Limited ...Respondents

Statutory Alert:
1. The authenticity of this Stamp certificate should be verified at 'www.shcilestamp.com' or using e-Stamp Mobile App of Stock Holding. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY COMPANY LIMITED ROSA POWER SUPPLY CC

I Sumeet Notani, S/o Shri D.P Notani, aged 52 years, Authorised Signatory, Rosa Power Supply Company Limited, having its office at 520- Kasmanda House, 2- Park Road, Hazratganj, Lucknow 226001 do hereby solemnly affirm and state as under.

1. That I am the Authorised Signatory of Rosa Power Supply Company Limited and am aware of the facts and circumstances of the present case and am otherwise authorized to swear and affirm the present Affidavit.

2. That I have gone through the contents thereto and state that same are true to my knowledge based on the records maintained by Rosa Power Supply Company Limited in ordinary course of its business,

3. That the annexure appended hereto are true copies of their respective originals.

Deponent

VERIFICATION

I, the deponent above named do hereby verify that the contents of my above affidavit are true and correct no part of its false and nothing material has been concealed there from.

Verified at Lucknow on this 2nd December 2024

Deponent

NOTARY
R.C. VERMA
Adv. & NOTARY
Lucknow U.P. India
Regd. 31/64/2000
STATE OF UTTAR PRADESH

Sworn and Verified
Before me

R.C. VERMA
Adv. & Notary
Lucknow U.P. India
Regd. No. 31/64/2000

PROOF OF ONLINE FEE PAYMENT FOR TRUE UP PETITION FILED FOR 2019-24 MYT PERIOD

UTR NO.IBKL241126654500

26/11/2024 14:54:58 26/11/2024 Dr. 1,00,000.00

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BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2024

IN THE MATTER OF:

Petition under Regulation 16 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2019-20 to FY 2023-24.

AND IN THE MATTER OF:

Rosa Power Supply Company Limited ... Petitioner

Versus

Uttar Pradesh Power Corporation Limited ... Respondent

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10	**Annexure P/8**- A true copy of Documentary evidence of interest rate considered at bank rate (MCLR+ 350 basis points)	714-716
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BEFORE THE HON'BLE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION, LUCKNOW, UTTAR PRADESH

PETITION NO. _____ OF 2024

IN THE MATTER OF:

Petition under Regulation 16 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2019 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2019-20 to FY 2023-24.

AND IN THE MATTER OF:

Rosa Power Supply Company Limited ... Petitioner

Versus

Uttar Pradesh Power Corporation Limited .... Respondent

MOST RESPECTFULLY SHOWETH:

I. CONSPECTUS.

1.1. The Petitioner, i.e., Rosa Power Supply Company Limited (**"Petitioner/RPSCL"**) is a Generating Company within the meaning of Section 2 (28) of the Electricity Act, 2003 (**"the Act"**). RPSCL is a wholly owned subsidiary of Reliance Power Ltd., which has set up a 1200 MW coal fired thermal power generation station as an Independent Power Producer (**"IPP"**) at Rosa in District Shahjahanpur (Uttar Pradesh) consisting of four Units with a capacity of 300 MW each in two stages of 600 MW each (**"Rosa TPP"** or **"the Project"**).

1.2. The present Petition has been filed in compliance to the Regulation 16 of the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2019 (**"UPERC Tariff Regulations, 2019/ Tariff Regulations, 2019"**) read with Section 61, Section 62 and Section 86 of the Act. Through the instant

Petition, RPSCL is seeking truing up of tariff approved for the Control Period FY 2019-20 to FY 2023-24 on account of the following:

a) Additional Capital Expenditure on bund raising for Ash Dyke Lagoon-1 (2nd Raising) in accordance with the Regulation 20(2)(v) & (vi) of UPERC Tariff Regulations, 2019; and,

b) Additional Capital Expenditure for Side Stream Filtration System in accordance with the Regulation 20(2)(vii) of UPERC Tariff Regulations, 2019; and,

c) Annual Fixed Charges for the Control Period FY 2019-20 to FY 2023-24.

II. BRIEF FACTS

2.1 The Petitioner has entered into a Power Purchase Agreement ('**PPA**') dated 12.11.2006 with Uttar Pradesh Power Corporation Limited ("**UPPCL**"), which was duly approved by this Hon'ble Commission for supplying 600 MW capacity from Stage 1 vide Order dated 02.02.2006, 01.11.2006 and 08.11.2006. A true copy of the PPA dated 12.11.2006 along with the Orders dated 02.02.2006, 01.11.2006 and 08.11.2006 passed by the Hon'ble Commission have been annexed herewith and marked as **ANNEXURE P/1 (Colly).**

2.2 Subsequently, a Supplementary PPA ('**SPPA**') and an Amendment to the SPPA ("**ASPPA**") were signed with UPPCL on 11.09.2009 and 19.11.2011, respectively, for supplying 300 MW each from Stage 2 pursuant to the approval by this Hon'ble Commission on 15.06.2009 (for SPPA) and 22.12.2011 (for ASPPA). A true copy of the SPPA & ASPPA dated 11.09.2009 & 19.11.2011 along with the Orders dated 15.06.2009 and 22.12.2011 passed by the Hon'ble Commission have been annexed herewith and marked as **ANNEXURE P/2 (Colly).**

2.3 Hon'ble Commission, vide Order dated 17.05.2010 in Petition No. 660/2010, filed by the Petitioner for seeking provisional tariff for Unit 1 of Rosa TPP,

had provisionally approved 0.5% additional Return on Equity ("**ROE**") on account of early commissioning of Rosa TPP and further, in Petition No. 706 of 2010, Hon'ble Commission while determining tariff for Phase I has finally approved 0.5% additional ROE on account of early commissioning vide Order dated 28.03.2011.

2.4 Petitions No. 967/2014, 968/2014 and 1016/2015 were filed by the Petitioner for seeking Truing up of Tariff for 600 MW Rosa TPP Stage-I for FY 2009-10 to FY 2013-14, fixation of Tariff for 600 MW Rosa TPP Stage-II for FY 2011-12 to FY 2013-14 and fixation of Tariff for 4 x 300 MW Rosa TPP for Stage I and Stage II for the Control Period FY 2014-15 to FY 2018-19, respectively. This Hon'ble Commission passed an Order dated 22.08.2017 in the aforesaid Petitions approved the truing up of FY 2009-10 to FY 2013-14 and MYT for FY 2014-15 to FY 2018-19 of Rosa TPP. While determining tariff for Stage II from FY 2011-12 to FY 2013-14, Hon'ble Commission had approved additional ROE of 0.5% on account of early commissioning of Stage II and directed the Petitioner to file Petition for truing up of tariff for FY 2014-15 to FY 2018-19 at the end of the Control Period. Accordingly, Petitioner had filed a Truing up Petition for seeking truing up of tariff for FY 2014-15 to FY 2018-19 which has been decided by this Hon'ble Commission vide Order dated 25.02.2022.

2.5 Subsequently, the Petitioner had filed a Petition (Petition No. 1849 of 2022) for review of True-up Order dated 25.02.2022 seeking review of certain aspects like computation of Interest on Working Capital (IoWC), Debt: Equity ratio approved by the Hon'ble Commission. Further, UPPCL also had filed a Petition (Petition No. 1851 of 2022) for review of True-up Order seeking True-up of O&M expenses for FY 2014-15 to FY 2018-19 and review of carrying cost allowed. The Hon'ble Commission issued the Order in Petition No. 1849 & 1851 of 2022 on 11.01.2023.

2.6 Pending the finalization of UPERC Tariff Regulations, 2019, Hon'ble Commission issued the Suo-motu Order dated 30.05.2019 extending the applicability of UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 (**"UPERC Tariff Regulations, 2014"**) with effect from 01.04.2019 and also directed that tariff during FY 2019-20 shall remain as determined under UPERC Tarif Regulations, 2014 on provisional basis subject to the adjustment with interest. Accordingly, the Petitioner for FY 2019-20 had raised the energy invoices as per the tariff approved for FY 2018-19 in the Tariff Order dated 22.08.2017.

2.7 This Hon'ble Commission issued the Tariff Regulations, 2019 on 11.09.2019 according to which the Petitioner was required to file the Multi Year Tariff Petition (**"MYT Petition"**) for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24. Accordingly, the Petitioner filed a Petition in Petition No. 1578 of 2022 on 04.05.2020 for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24.

2.8 This Hon'ble Commission vide Suo-motu Order dated 11.05.2020 ordered that due to outbreak of Covid-19 and subsequently declaration of country wide lockdown, provisional tariff for next 6 months, i.e., 01.04.2020 to 31.10 2020 shall remain as determined under UPERC Tarif Regulations, 2014. Subsequently, Hon'ble Commission vide Suo-Motu orders dated 11.12.2020, 11.06.2021, and 15.11.2021 extended the applicability of provisional tariff.

2.9 This Hon'ble Commission vide Order dated 02.05.2022 had directed the Petitioner to file the amended MYT Petition for the reasons mentioned therein. Accordingly, the Petitioner filed a revised Petition on 24.05.2022 for seeking approval of MYT Tariff for the Control Period FY 2019-20 to FY 2023-24.

2.10 Pending issuance of Orders on MYT Petition, Hon'ble Commission issued Suo-Motu Order dated 18.07.2022 and directed that the provisional tariff shall remain as determined under UPERC Regulations, 2014, subject to

adjustment with applicable interest, if any, till MYT Petitions for Control Period FY 2019-20 to FY 2023-24 are disposed of.

2.11 This Hon'ble Commission passed an Order dated 16.05.2023 in the aforesaid Petition (herein after referred to as "**MYT Order**") and approved MYT Tariff for the Control Period FY 2019-20 to FY 2023-24. Accordingly, the Petitioner had raised the energy invoices as per the tariff approved for FY 2018-19 in the Tariff Order dated 22.08.2017 till the MYT Order is issued. A true copy of the Order dated 16.05.2023 passed by the Hon'ble Commission has been annexed herewith and marked as **ANNEXURE P/3.**

2.12 In the aforesaid MYT Petition, the Petitioner had claimed additional capitalization of Rs. 19.49 Crore in FY 2020-21 towards 2nd raising of ash dyke Lagoon-1 and Statutory Auditor's Certificate was provided in support of actual cost incurred. However, the Hon'ble Commission in the MYT Order dated 16.05.2023 held that as per Regulation 17(6) of Tariff Regulations, 2019, any capital expenditure incurred through Related Parties, without prior approval of procurer, shall be excluded from the capital cost and Rs. 16.73 Crore is ought to be disallowed as it was paid to a Related Party of the Petitioner. Therefore, the Hon'ble Commission disallowed entire claim of additional capitalization at the stage of tariff determination and directed Rosa to approach the Hon'ble Commission at the true-up stage along with UPPCL's consent and all relevant supporting documents.

2.13 The Petitioner had filed a Petition in Petition No. 2019 of 2023 for review of MYT Order to the limited extent that the Petitioner is not required to seek approval from UPPCL for additional capital expenditure incurred for Lagoon 1 (2nd Raising) since the work was not executed through Related Party. A true copy of the Review Petition dated 18.08.2023 has been annexed herewith and marked as **ANNEXURE P/4.**

2.14 This Hon'ble Commission dismissed the Review Petition vide Order dated 02.05.2024 by ruling that the ground for review have been already

appropriately dealt by the Hon'ble Commission in the MYT Order dated 16.05.2023 and there is no error apparent on face of record. A true copy of the Order dated 02.05.2024 passed by the Hon'ble Commission has been annexed herewith and marked as **ANNEXURE P/5.**

2.15 As per Regulation 16 of Tariff Regulations, 2019, the Petitioner is required to file a petition for truing up of capital expenditure and tariff for the Control Period FY 2019-20 to FY 2023-24 by 30.11.2024. Accordingly, RPSCL is filing the present True Up Petition for True up of tariff for Control Period FY 2019-20 to FY 2023-24. It is to be noted that since 30.11.2024 a holiday, the present True Up Petition is being filed on the next working day, i.e., on 02.12.2024. Accordingly, the Hon'ble Commission is requested to condone the delay of 2 days on this account.

2.16 It is respectfully submitted that the present Petition is being filed without prejudice to the rights of the Petitioner under law.

III. TRUING UP OF CAPITAL EXPENDITURE AND TARIFF FOR THE CONTROL PERIOD FY 2019-20 TO FY 2023-24

A. Additional Capitalization

i) Ash Dyke Bund raising for Lagoon-1 (2nd Raising)

3.1 This expenditure is for the work related to Ash Pond works which are of continuous nature during the entire operational life of the power plant. Ash pond management is dynamic in nature and needs capacity enhancement and strengthening periodically. It is an industry wide practice being followed by the power plants across the world on a periodic basis. Raising of Ash Dyke falls within the scope and purview of Regulation 20 (2)(v) & (vi) of the UPERC Tariff Regulations, 2019 and the same are being reproduced as follows:

> *"20. **Additional capitalization:***
>
> ....
>
> *(2) Subject to the provision of clause (3) of this regulation, the capital expenditure of the following nature for new or existing projects actually*

incurred after the cutoff date may be admitted by Commission, subject to prudence check;

.....

(v) Deferred works relating to ash pond or ash handling system in the original scope of works;

....

(vi) Raising of ash dyke as a part of ash disposal system."

3.2 Rosa TPP's Ash dyke has been in operation since year 2010. In due course of operation of Rosa TPP, the capacity of Lagoon-1 & Lagoon-2 got exhausted by March 2016. Lagoon-1 was completely filled and some capacity was left in Lagoon-2 and therefore, any delay in Bund raising would have affected the plant operation. Therefore, the works of Lagoon-1, 2nd raising had been taken up by elevating the bund wall by height of 6 mtrs to attain additional volume of around 12.5 Lakh cubic meter (usable quantity of ash 8.8 Lakh MT). The said work of bund raising was completed in FY 2020-21.

3.3 Hon'ble Commission, in its Order dated 06.04.2021 in Petition No. 1390 of 2018, had considered the additional capital expenditure incurred on account of ask dyke bund raising of Lagoon 2 (1st raising). In the referred Order, the Hon'ble Commission has noted that the bund raising of Lagoon-2 (1st raising) and Lagoon-1 (2nd raising) was undertaken and the work of Lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crore. The raising of bund for Lagoon-1 (2nd raising) is underway and shall be completed by October 2019 with estimated cost of Rs. 20 Crore. Further, Hon'ble Commission, in its Order dated 25.02.2022 in Petition No. 1529 of 2019, had approved additional capital expenditure incurred on account of ask dyke bund raising (Lagoon-2 1st raising). Relevant paras of True-up Order dated 25.02.2022 are reproduced below for ready reference:

3.3.13 The Petitioner in Petition No. 1390 of 2018 had seek in-principal approval of additional capital cost for Ash dyke raising in lagoon-2 (1st raising) undertaken by the RPSCL owing to uncontrollable factor faced in term of Regulation 21 read with Regulations 22 of UPERC (Terms

and Conditions) Tariff Regulations, 2014. In this regard, the Commission vide its Order, dated April 06, 2021 has stated as follows:

*"**Issue of Ash dyke***

17. The existing ash dyke of RPSCL with Lagoon-1, 2A and 2B has total capacity of approx. 48 lakh Cum. The usable capacity of existing ash dyke is 33.6 MT. the bund raising of lagoon-1 after its exhaustion was completed in March 2016, creating an additional capacity of 17 lakh Cum. and has been capitalized under additional capital expenditure work of Rs. 550 crores approved by the Commission. However, as against lagoon-1 was exhausted bund raising of lagoon-2 (1st raising) and lagoon-1 (2nd raising) was undertaken. The work on lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crores. ***The raising of bund for lagoon 1 (2nd raising) is underway and shall be completed by October 2019 with estimated cost of Rs. 20 Crores.*** *During the hearing on 05.11.2019, petitioner has submitted that it has filed True-up petition no.1529/2019 based on the actual expenditure incurred and the Commission may consider the same.*

18. RPSCL has already filed True-up Petition No. 1529/2019 considering actual expenditure on Ash dyke which shall be considered after prudence check by the Commission."

3.3.14 Further, it is observed that the Petitioner in its true-up has claimed the additional capitalization of Rs. 22.49 Crore against the first raising of Lagoon 2 of Ash dyke under Regulation 22 (2)(iv) and (vi) of the UPERC Generation Tariff Regulations, 2014. Accordingly, the Commission asked Petitioner to provide justification to substantiate it claim under Regulation 22 (2) (iv) and (vi) of the UPERC Generation

Tariff Regulations, 2014. In response, the Petitioner submitted the Report on Specification for Ash Handling System for Stage-I, specifying design basis for various component of the ash handling system which considers the height of ash dyke to be raised gradually up to 30M during operational Stage of the project. Further, the Petitioner also submitted Statutory Auditor Certificate certifying that, the Capital Expenditure of Rs. 22.49 Crore has been incurred toward "Ash dyke bund raising of Lagoon – 2 (1st raising) which was capitalized on December 31, 2018."

3.4 The raising of bund for Lagoon-1 (2nd raising) was completed in FY 2020-21 and the actual expenditure incurred for undertaking the aforementioned works is Rs.19.49 Crore. This additional capital expenditure squarely falls within the scope and meaning of Regulation 20(2)(v) & (vi) of the UPERC Tariff Regulations, 2019 and therefore, has been included in the present petition for consideration of this Hon'ble Commission. It is highlighted that the Capital Expenditure incurred by RPSCL also been independently verified by a qualified auditor. A true copy of the Statutory Auditor's Certificate has been annexed herewith and marked as **ANNEXURE P/6.**

3.5 It is also relevant to state that the Hon'ble Central Electricity Regulatory Commission (**"CERC"**) through its various Orders permitted Additional Capitalization of Ash Bund raising for the projects approved under Section 62 of the Act and some of the Orders issued by Hon'ble CERC are as follows:

(a) **NTPC Ltd. vs. Andhra Pradesh Eastern Power Distribution Company Ltd [Petition No. 270/GT/2014]:**

"14 The petitioner has claimed Rs. 383.00 lakh in 2014-15, Rs. 2300.00 lakhs in 2015-16, Rs. 1406.00 lakhs in 2016-17, Rs. 1124.00 lakh in 2017-18 and Rs. 2783.00 lakh in 2018-19 towards works of ash dyke raising consisting of two Lagoons i.e. lagoon-1and lagoon-2. We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the

approved scheme under original scope of work. ***As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19. However, the petitioner is directed to submit at the time of truing up of tariff, the detail break-up of the activities along with the cost incurred for each work under the Raising of Ash Dyke works, the estimated expenditure envisaged for Ash Handling system/ Ash Dyke Raising in the original scope of work, the actual expenditure incurred as on COD of the generating station and from COD to 2018-19.***"

(b) **NTPC Ltd. vs. West Bengal State Electricity Distribution Company Limited & Ors. [Petition No. 281/GT/2014]:**

"***14.*** *We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected towards ash dyke raising is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the approved scheme under original scope of work. The petitioner has submitted newspapers extracts from 2011 depicting the coverage of the issues pertaining to ash disposal.* ***As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19."***

ii) Side Stream Filtration System

3.6 It may be noted that direct raw water was being used for Stage 2 as colling water make-up and based upon raw water quality. It was observed that during the monsoon season, the raw water turbidity was very high, i.e., 40 to 80 Nephelometric Turbidity Unit (NTU), while the design requirement should be less than 10 NTU.

3.7 Under the above high turbid conditions, the water is better handled in Pre-Treatment Plant (i.e. Side Stream Filtration System) consisting of an Aerator, Reactor Clarifier, Connecting Channel and Cooling Tower make-up Pumping and other interconnecting Piping System. The Clarifier removes the turbidity and keeps it below 1- NTU thereby meeting the clarified water quality requirement. Therefore, a clarifier in Pre-Treatment plant for Stage

2 of capacity 1625 M3/hr was installed. This is an additional system to remove the turbidity of raw water.

3.8 It may be noted that the Petitioner vide Petition No.786 of 2012 had claimed additional capital cost of Rs. 595.09 Crore which included cost of Rs. 14.17 Crore for Side Stream Filtration System. Hon'ble Commission vide Order dated 25.06.2012 in Petition No.786 of 2012 had provisionally approved the additional capital cost of Rs. 550.02 Crore on the BoP of the project subject to prudence check and final approval of the Hon'ble Commission.

3.9 Further, the Expert Committee appointed by Hon'ble Commission for prudence check of additional capitalization had recommended to approve additional capitalization of Rs. 517.28 Cr which included Rs. 14.17 Cr towards cost of Side Stream Filtration System. However, since till FY 2016-17, only engineering work was completed and actual work was not completed, the Expert Committee in its final recommendation had not considered any additional capitalization for Side Stream Filtration System.

3.10 However, the Expert Committee, in its report on prudence check of additional capital cost for Rosa TPP dated November 2018, had mentioned that the total works of Rs. 86.14 Cr are under various stage of implementation and the Hon'ble Commission may approve the same for tariff determination as and when the pending works are completed and capitalized. The relevant extract of the report is reproduced below:

> *"Thus, of the total capitalized cost of Rs. 432.74 Crores, the committee hereby recommends an amount of Rs. 421.55 Crores for the purpose of tariff determination.*
>
> ***Apart from the above, the total works amounting to Rs. 432.74 Crores under additional capital expenditure are still in various stages of implementation. The committee recommends that the Hon'ble UPERC can suitably consider this amount for the tariff determination as and when works are completed and capitalised.***

As these works have not been initiated/ completed on the same, the Committee has no comments to offer at this stage."

3.11 Work of Side Stream Filtration System has been capitalized in FY 2020-21 for Rs. 11.08 Crore and it falls within the scope and purview of Regulation 20 (2)(vii) of the UPERC Tariff Regulations, 2019 and the same are being reproduced as follows:

*"20. **Additional capitalization:***

....

(2) Subject to the provision of clause (3) of this regulation, the capital expenditure of the following nature for new or existing projects actually incurred after the cutoff date may be admitted by Commission, subject to prudence check;

....

(vii) Liability for works executed prior to the cut-off date;"

3.12 In view of the above, the Petitioner request the Hon'ble Commission to approve the additional capitalization claimed for FY 2020-21 for Side Stream Filtration System.

iii) Additional Capitalization for the Control Period

3.13 In view of above, additional capitalization considered for determination of Tariff for the Control Period from FY 2019-20 to FY 2023-24 has been given in the table below:

Table 1: Additional Capitalization claimed for the Control Period (Rs. Crore)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Additional Capitalization for raising of bund for Lagoon-1 (2nd raising)	0.00	19.49	0.00	0.00	0.00
Additional Capitalization for Side Stream Filtration System	0.00	11.08	0.00	0.00	0.00
Total Additional Capitalization	**0.00**	**30.57**	**0.00**	**0.00**	**0.00**

iv) Means of Finance for Additional Capitalization

3.14 The Petitioner has executed the additional capitalization of Rs. 30.57 Crore from the internal accruals and reserves & surplus. UPERC Tariff Regulations,

2019 has limited the equity investment up to 30%. Equity more than 30% has to be considered as normative debt. Therefore, for undertaking additional capitalization normative, i.e., 70:30, Debt: Equity ratio has been considered.

3.15 The Petitioner submits its Board Resolution as per Regulation 22(1)(i) of the Tariff Regulations, 2019 regarding infusion of fund for additional capitalization towards bund raising from internal resources in **ANNEXURE P/7**. Board Resolution for additional capitalization towards Side Stream Filtration System will be submitted separately.

v) Hon'ble Commission's directions in MYT Order regarding Additional Capitalization

3.16 The Petitioner, in its MYT Petition (Petition No. 1578 of 2020), had sought approval of the additional capitalization of Rs. 19.49 Crore towards raising of bund for Lagoon-1 (2nd raising). Further, the Petitioner had submitted the Statutory Auditor's Certificate thereby furnishing details of the expenditure incurred by RPSCL towards Ash Dyke Bund Raising of Lagoon 1 (2nd raising). As per the Statutory Auditor's Certificate, RPSCL made the payment to CLE Pvt. Ltd. ("**CLE**") and evidently during the time when the Tariff Regulations, 2014 were in vogue, as is evident from the Statutory Auditor's Certificate dated 10.02.2023 that was placed on record.

3.17 However, this Hon'ble Commission in the MYT Order, disallowed the RPSCL's claims of Rs. 19.49 Crore for additional capitalization towards Ash dyke bund raising for Lagoon 1 (2nd raising). The reason given for such disallowance was that approximately Rs.16.73 Crore out of Rs. 19.49 Crore was incurred through a related party, i.e., CLE and prior approval of UPPCL was required for the said capital expenditure in terms of Regulation 17(6) of Tariff Regulations, 2019. This Hon'ble Commission, however, did direct RPSCL to approach this Hon'ble Commission at the stage of truing-up along with all UPPCL's consent and all relevant and supporting documents.

3.18 For ease of reference, the relevant extract of the MYT Order dated 16.05.2023 is reproduced hereunder:

> *"6.15. Under the order dated 04.02.2020 in Petition No. 1233 of 2017,* ***this Hon'ble Commission held that REL Utility Engineers Limited appears to be a related party.*** *Relevant extracts of this Commission's findings under the order dated 04.02.2020 are reproduced below for ready reference -*
>
> > *"16.4 Issue 4: Approval of additional capital expenditure during 2014-15 to 2016-17*
> >
> > *Commission's view:*
> > *...*
> > *(c) Out of three entities who submitted their bids,* ***Reliance Utility Engineers Private Limited's ('RUEPL"), which was later changed to REL Utility Engineers Ltd. appears to be a related party to the petitioner, Rosa Power Supply Company ltd****, as can be seen from Annual Accounts of Reliance Infrastructure Ltd (formerly known as RUEPL). Its offer was considered to be closest to the proximity with the scope of the bid and therefore the deviation in the bids of other entities were loaded with the variation price from the bid submissions made by RUEPL"*
>
> *6.16. Regulation 20(2) of the Tariff Regulations 2019 prescribes that any capital expenditure can be capitalized only subject to prudence check. In this regard,* ***Regulation 17(6) of the Tariff Regulations 2019 prescribes that any capital expenditure incurred through related parties without prior approval of the procurer shall be excluded from the capital cost.***
> *...*
> *6.17. Applying the above regulation, approximately Rs. 16.73 crores out of Rs. 19.49 Crores of additional capital cost claimed by RPSCL ought to be disallowed straightaway as the said amount has been incurred through an entity which is admittedly a related party of RPSCL as held by this Commission in its order dated 04.02.2020 in Petition No. 1233 of 2017.*
>
> *6.18. RPSCL's reliance on this Commission's order dated 06.04.2021 in Petition No. 1390 of 2018 is wholly inappropriate and misleading. As stated by RPSCL, under the said order, it was never this Commission's finding that the additional capital expenditure incurred on account of Lagoon 2 (1st raising) was being considered by it or that Lagoon 1 (2nd raising) was underway and would be completed by October 2019 with an estimated cost of Rs20 crores. The only finding of this Hon'ble Commission under the order dated 06.04.2021 qua ash dyke height raising was that subject to prudence check at the time of true-up, actual expenditure incurred would be considered.*

6.19. Considering that the nature of the transaction, the Commission thus disallows RPSCL's claims for additional capitalization at this stage (i.e., the stage of tariff determination) and directs RPSCL to approach this Commission at the true-up stage along with all UPPCL's consent and all relevant and supporting documents."

[Emphasis Supplied]

3.19 Aggrieved by the above finding, the Petitioner filed a Review Petition (Petition No. 2019 of 2023) on 18.08.2023 for review/ modification of Order dated 16.05.2023 passed in Petition No. 1578 of 2020 to the limited extent that the Petitioner is not required to seek approval from UPPCL for additional capital expenditure incurred for Lagoon 1 (2nd Raising) since the work was not executed through Related Party.

3.20 The Petitioner in Review Petition had submitted that:

(a) the work order for Lagoon 1 (2nd Raising) was placed to CLE when Tariff Regulations, 2014 were in force and in fact the entire payment was also made before the notification of Tariff Regulations, 2019. Therefore, at the time when the work order was placed and the payments were made, RPSCL could not have taken into consideration that a provision requiring prior approval in case the work is being carried out through a related party would be introduced

(b) CLE does not fulfill any of the conditions as envisaged under Section 2 (76) or Section 2 (6) of the Companies Act, 2013 which pertain to *"Related Party"* and *"Associate Company"* in as much as CLE in no manner has any significant influence on RPSCL. Therefore, CLE can in no manner be construed as a related party to RPSCL.

3.21 Grounds for the Petitioner's submission that it is not required to seek UPPCL's consent for the capital expenditure incurred for Lagoon 1 (2nd raising) are elaborated in details in Review Petition. A true copy of the Review Petition dated 18.08.2023 has been already annexed herewith as Annexure P/4.

3.22 However, this Hon'ble Commission dismissed the Review Petition vide Order dated 02.05.2024 by ruling that the ground for review have been already appropriately dealt by the Hon'ble Commission in the MYT Order dated 16.05.2023 and there is no error apparent on face of record. A true copy of the Order dated 02.05.2024 passed by the Hon'ble Commission has already been annexed herewith as Annexure P/5.

3.23 It is submitted that this Hon'ble Commission notified Tariff Regulations, 2019 on 11.09.2019 which were made applicable from 01.04.2019. Regulation 17(6) of the Tariff Regulations, 2019 specifies that any capital expenditure incurred on the project through any related parties, as defined in the Companies Act, 2013, without prior approval of the procurer shall be excluded from the capital cost. For ease of reference Regulation 17 (6) of the Tariff Regulations, 2019 is reproduced hereunder:

> *"17. Capital Cost:*
> .....
> *(6) Prudence Check for Capital Cost: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:*
> *(a) Prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by Central Electricity Regulatory Commission from time to time*
> ....
> ***Provided that any capital expenditure incurred on the project through any related parties, as defined in the Companies Act, 2013, without prior approval of the procurer shall be excluded from the Capital Cost."***

3.24 The following is relevant for consideration:

(a) RPSCL in Petition No. 1390 of 2018 had submitted the fact before this Hon'ble Commission that the bund raising of Lagoon-2 (1st raising) and Lagoon-1 (2nd raising) was undertaken and the work of Lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crore. The raising of bund for Lagoon-1 (2nd raising) is underway and shall be completed by October 2019 with estimated cost of Rs. 20 Crore.

(b) Further, Hon'ble Commission in its Order dated 25.02.2022 in Petition No. 1529 of 2019 has approved additional capital expenditure incurred on account of ask dyke bund raising (Lagoon-2, 1st raising). The raising of bund for Lagoon-1 (2nd raising) was completed in FY 2020-21 and accordingly, RPSCL claimed Additional Capitalization against it in the MYT Petition. The ongoing work for Lagoon-1 (2nd raising) was also brought to the notice of Hon'ble Commission in 2018 in Petition no. 1390 of 2018.

3.25 Tariff Regulations 2014 for the determination of Tariff for a generating station were applicable for a period of 5 years till 31.03.2019. Regulation 19(6) of the Tariff Regulations 2014 lays down the principles to be followed for prudence check of the capital expenditure, the same is reproduced hereunder:

> ***"19. Capital Cost:***
>
> .....
>
> *(6) Prudence Check of Capital Expenditure: The following principles shall be adopted for prudence check of capital cost of the existing or new projects:*
>
> *(a) In case of the thermal generating station, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Central Electricity Regulatory Commission from time to time:*
>
> *(b) Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff:*
>
> *(c) Provided further that in cases where benchmark norms have been specified, the generating company shall submit the reasons for exceeding the capital cost from benchmark norms to the satisfaction of the Commission for allowing cost above benchmark norms.*
>
> *(d) The Commission may issue new guidelines or adopt the guidelines prescribed by the Central Electricity Regulatory Commission for vetting of capital cost of projects by an independent agency or an expert and in that event the capital cost as vetted by such agency or expert may be considered by the Commission while determining the tariff for the generating station.*
>
> *(e) The Commission may issue new guidelines or adopt the guidelines prescribed by the Central Electricity Regulatory Commission for*

scrutiny and approval of commissioning schedule of the projects which shall be considered for prudence check.
(f) Where the power purchase agreement entered into between the generating company and the beneficiaries provides for ceiling of actual capital expenditure, the Commission shall take into consideration such ceiling for determination of tariff for prudence check of capital cost."

3.26 Without prejudice to the contentions that CLE is not a related party to RPSCL, RPSCL has awarded the work to CLE for the works of the 2nd raising of ash dyke Lagoon 1 when the Tariff Regulations, 2014 were in force. As per the Regulation 19(6) of Tariff Regulations, 2014, there was no requirement to seek prior approval from UPPCL for incurring any capital expenditure through a related party for any Additional Capital Expenditure.

3.27 In may be noted that:

(a) As per Section 2(76) of the Companies Act, 2013, related party has been defined as follows:

"(76) "related party", with reference to a company, means—
(i) a director or his relative;
(ii) a key managerial personnel or his relative;
(iii) a firm, in which a director, manager or his relative is a partner;
(iv) a private company in which a director or manager or his relative is a member or director;
(v) a public company in which a director or manager is a director or and holds along with his relatives, more than two per cent of its paid-up share capital;
(vi) any body corporate whose Board of Directors, managing director or manager is accustomed to act in accordance with the advice, directions or instructions of a director or manager;
(vii) any person on whose advice, directions or instructions a director or manager is accustomed to act:
Provided that nothing in sub-clauses (vi) and (vii) shall apply to the advice, directions or instructions given in a professional capacity;
(viii) any body corporate which is—
(A) a holding, subsidiary or an associate company of such company;
(B) a subsidiary of a holding company to which it is also a subsidiary;
..."

(b) An associate company as per Section 2 (6) of the Companies Act is defined as follows:

> *"(6) —associate company||, in relation to another company, means a company in which that other company has a significant influence, but which is not a subsidiary company of the company having such influence and includes a joint venture company. Explanation.—For the purposes of this clause, —significant influence|| means control of at least twenty per cent. of total share capital, or of business decisions under an agreement;"*

3.28 In this regard, it is pertinent to mention herein that as per Section 2 (6) of the Companies Act, 2013, an associate company qua another company means a company in which the other company has a significant influence but at the same time such a company is not a company having significant influence. Further, '*significant influence*' refers to control of at least 20% of the total share capital, or of business decisions under an agreement which clearly is not there in the present case as CLE neither directly nor indirectly holds 20% or more of the voting power of RPSCL. Thus, RPSCL and CLE are not the related parties to each other.

3.29 This Hon'ble Commission vide MYT Order had directed RPSCL to approach this Hon'ble Commission at the true-up stage along with all UPPCL's consent and all relevant and supporting documents. In view of the above, the Petitioner once again submits that RPSCL is not required to seek UPPCL's consent for the capital expenditure already incurred for Lagoon 1 (2nd raising) since CLE is not a Related Party to RPSCL and requests this Hon'ble Commission to approve the same as part of truing up for the Control Period FY 2019-20 to FY 2023-24. Statutory Auditor's Certificate has already been annexed herewith as Annexure P/6 and any other relevant and supporting documents, if required by this Hon'ble Commission, will be submitted during proceeding of the present truing up Petition.

B. *Fixed Charges for the Control Period FY 2019-20 to FY 2023-24*

3.30 The Hon'ble Commission in the MYT Order dated 16.05.2023 has approved Fixed Charges for the Petitioner for the Control Period FY 2019-20 to FY 2023-24 as shown below:

Table 2: Fixed Charges approved in MYT Order (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	372.88	372.88	372.88	372.88	372.88
Interest on Loan	199.82	162.32	125.16	84.24	40.54
Return on Equity	250.37	250.37	250.37	250.37	250.37
Interest on Working Capital	103.43	103.46	103.52	103.53	103.47
O&M Expenses	332.88	344.52	356.64	369.12	382.08
Total	**1,259.38**	**1,233.55**	**1,208.57**	**1,180.14**	**1,149.34**

3.31 Hon'ble Commission vide MYT Order has approved GFA of Rs. 6519.73 Crore for FY 2019-20 to FY 2023-24. As discussed earlier, the Petitioner has considered additional capitalization of Rs. 19.49 Crore in FY 2020-21 towards raising of bund for Lagoon-1 (2nd raising). Thus, for the purpose of truing up, the Petitioner has considered GFA for the Period FY 2019-20 to FY 2023-24 as shown below:

Table 3: GFA considered for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening GFA	6519.73	6,519.73	6,550.30	6,550.30	6,550.30
Add-cap during the year	0.00	30.57	0.00	0.00	0.00
Closing GFA	6519.73	6,550.30	6,550.30	6,550.30	6,550.30

3.32 For truing of tariff for the Period FY 2019-20 to FY 2023-24, the Petitioner has calculated Fixed Charges in accordance with the Regulation 24 of Tariff Regulations, 2019 as elaborated below:

a. *Return on Equity*

3.33 Hon'ble Commission had approved the closing equity of Rs. 1658.85 Crore for of FY 2018-19 in True-up Order dated 25.02.2022 which was revised to Rs. 1669.16 Crore in Order dated 11.01.2023. Therefore, to arrive at the opening equity as on 01.04.2019, the closing equity of FY 2018-19 as

approved in Review Order dated 11.01.2023 has been considered. Subsequent equity addition as 30% of the addition of capital cost in FY 2020-21 has been considered.

3.34 Return on Equity has been computed in accordance with the Regulation 24(i) of Tariff Regulations, 2019 on the equity component of the capitalized cost on the normative debt: equity ratio. Further, return on equity has been considered as 15% as per terms of Tariff Regulations.

3.35 Return on Equity calculated for the Control Period is as under:

Table 4: Return on Equity claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1,669.16	1,669.16	1,678.33	1,678.33	1,678.33
Add: Increase due to addition during the year	0.00	9.17	0.00	0.00	0.00
Closing Equity	1,669.16	1,678.33	1,678.33	1,678.33	1,678.33
Average Equity	1,669.16	1,673.75	1,678.33	1,678.33	1,678.33
Rate of ROE	15.0%	15.0%	15.0%	15.0%	15.0%
Return on Equity	**250.37**	**251.06**	**251.75**	**251.75**	**251.75**

b. Interest on Loan Capital

3.36 Hon'ble Commission had approved the closing debt of Rs. 2119.96 Crore for of FY 2018-19 in True-up Order dated 25.02.2022 which was revised to Rs. 2109.65 Crore in Review Order dated 11.01.2023. Therefore, to arrive at the opening debt as on 01.04.2019, the closing debt of FY 2018-19 as approved in Order dated 11.01.2023 has been considered. Subsequent debt addition as 70% of the addition of capital cost in FY 2020-21 has been considered. Further, repayment for the control period has been considered same as depreciation calculated for the year.

3.37 Interest on loan capital has been computed in accordance with the approach mentioned in Regulation 24(ii) of Tariff Regulations. Further, interest rate has been considered as the weighted average rate of interest of the actual loans at the beginning of each year for FY 2019-20 to FY 2022-23 and has been adjusted based on actual loan each year. It may be noted that entire loan is repaid in FY 2022-23 and there is no actual loan outstanding for FY

2023-24; however, normative loan is still outstanding. Therefore, as per provision of Regulation 24(ii)(d), the last available weighted average interest rate of 9.79% (i.e. weighted average interest rate of FY 2022-23) has been considered for calculation of interest on loan capital for FY 2023-24.

3.38 Interest on loan capital calculated for the Control Period is as under:

Table 5: Interest on loan capital claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative loan – Opening	4,850.56	4,850.56	4,871.96	4,871.96	4,871.96
Cumulative repayment of Normative loan upto previous year	2,740.90	3,109.93	3,480.47	3,850.79	4,221.12
Net Normative loan – Opening	2,109.66	1,740.63	1,391.49	1,021.17	650.84
Add: Increase due to addition during the year / period	0.00	21.40	0.00	0.00	0.00
Less: Normative repayment	369.03	370.54	370.32	370.32	364.09
Net Normative loan – Closing	1,740.63	1,391.49	1,021.17	650.84	286.75
Average Normative loan	1,925.14	1,566.06	1,206.33	836.00	468.79
Weighted average rate of interest	10.71%	10.97%	13.11%	9.79%	9.79%
Interest on Loan	**206.21**	**171.79**	**158.13**	**81.81**	**45.88**

c. Depreciation

3.39 Tariff Regulations, 2019 specifies the depreciation rates for different types of assets. It is submitted that depreciation has been worked out in accordance with the Regulation 24(iii) of Tariff Regulations, 2019 and has been calculated on the opening level of GFA of FY 2019-20 as well as on the assets added during the year in the current Control Period.

3.40 As per the Regulations, the rate of depreciation shall be continued to be charges at rates specified in Appendix III of Regulations till cumulative depreciation reaches 70% and thereafter, remaining depreciable value shall

be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

3.41 It may be noted that 70% of depreciation works out to be Rs. 4,585.21 Crore and if depreciation is calculated at the rate of 5.65% for FY 2023-24, the cumulative depreciation at the end of FY 2023-24 (i.e., Rs. 4,591.44 Crore) is exceeding 70% depreciation. Therefore, depreciation for FY 2023-24 has been limited to 70%, i.e., to Rs. 4,585.21 Crore as per provisions of Tariff Regulations, 2019 and the resultant depreciation rate works out to be 5.56%.

3.42 Depreciation computed for the Control Period is as under:

Table 6: Depreciation claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening GFA	6,519.73	6,519.73	6,550.30	6,550.30	6,550.30
GFA addition	0.00	30.57	0.00	0.00	0.00
Closing GFA	6,519.73	6,550.30	6,550.30	6,550.30	6,550.30
Average GFA	6,519.73	6,535.02	6,550.30	6,550.30	6,550.30
Rate of Depreciation	5.66%	5.67%	5.65%	5.65%	5.55%
Depreciation	**369.03**	**370.54**	**370.32**	**370.32**	**364.09**

d. O&M Expenses

3.43 O&M expenses for the Control Period have been considered as per the O&M norms applicable for 300 MW Unit as per Regulation 24 (iv) of the Tariff Regulations, 2019.

3.44 In addition to above, Regulation 24 (iv)(f) of the Tariff Regulations, 2019 allows water charges for thermal generating stations separately. Therefore, water charges have also been considered based on the actual cost incurred during FY 2019-20 to FY 2023-24.

3.45 Accordingly, the O&M expenses considered for the Control Period are given in the table below:

Table 7: O&M Expenses claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Cost in (Rs. Lakh/MW)	27.74	28.71	29.72	30.76	31.84
O&M Expenses	332.88	344.52	356.64	369.12	382.08
Water Charges	1.72	1.98	1.74	2.26	2.39
Total O&M Expenses incl. Water charges	**334.60**	**346.50**	**358.38**	**371.38**	**384.47**

e. Interest on Working Capital

3.46 Interest on Working Capital (IoWC) has been computed in line with Regulation 24(v) of Tariff Regulations, 2019 which provides detailed constituents comprising the Working Capital and interest thereof. Regarding interest rate, interest rate considered is at bank rate (MCLR+ 350 basis points) as on 1st April of each of the financial year during the control period as provided under Tariff Regulations, 2019. Documentary evidence for the same has been annexed herewith and marked as **ANNEXURE P/8.**

3.47 For computing cost of coal and secondary fuel oil, average energy charges for the months January 2019, February 2019 and March 2019 have been considered. Copy of the monthly energy invoices for the January 2019, February 2019 and March 2019 have been annexed herewith and marked as **ANNEXURE P/9.**

3.48 Accordingly, IoWC for the Control Period is computed in the table below.

Table 8: Interest on Working Capital claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Coal for 50 days	321.17	321.17	321.17	321.17	321.17
Cost of Secondary Fuel for 2 months	3.65	3.64	3.64	3.64	3.65
O&M Expenses for 1 month	27.88	28.88	29.86	30.95	32.04
Maintenance Spares @20% of O&M Expenses	66.92	69.30	71.68	74.28	76.89
Receivable for 45 days	446.71	444.07	442.87	434.97	432.64
Total Working Capital	**866.32**	**867.05**	**869.22**	**864.99**	**866.39**

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Rate of Interest	12.05%	11.25%	10.50%	10.50%	12.00%
Interest on Working Capital	**104.39**	**97.54**	**91.27**	**90.82**	**103.97**

f. Application Fee & Statutory Charges

3.49 Regulation 33 of the Tariff Regulations, 2019 allows Petitioner to claim Application fee and Statutory charges separately. Therefore, these expenses have also been considered based on the actual cost incurred during FY 2019-20 to FY 2023-24 as shown below:

Table 9: Application Fee and Statutory Charges claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Application Fee and Statutory Charges	0.34	2.66	0.55	0.19	0.40

g. Summary of Fixed Charges

3.50 Based on the cost components mentioned in previous paras, Petitioner submits its summary of Fixed Charges for the current Control Period in the following table and requests the Hon'ble Commission to approve the same.

Table 10: Fixed Charges claimed for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	369.03	370.54	370.32	370.32	364.09
Interest on Loan	206.21	171.79	158.13	81.81	45.88
Return on Equity	250.37	251.06	251.75	251.75	251.75
Interest on Working Capital	104.39	97.54	91.27	90.82	103.97
O&M Expenses including water charges	334.60	346.50	358.38	371.38	384.47
Application Fee and Statutory Charges	0.34	2.66	0.55	0.19	0.40
Total	**1,264.95**	**1,240.10**	**1,230.40**	**1,166.28**	**1,150.56**

C. Summary of Truing-up of Tariff for the Control Period FY 2019-20 to FY 2023-24

3.51 A summary of Truing up for the Control Period FY 2019-20 to FY 2023-24 considering the above claims is shown in the table below:

Table 11: Summary for Truing up of Fixed Charges for the Control Period (Rs. Crore)

Particulars	2019-20			2020-21		
	Approved	Truing up	Diff.	Approved	Truing up	Diff.
Depreciation	372.88	369.03	(3.85)	372.88	370.54	(2.34)
Interest on Loan	199.82	206.21	6.39	162.32	171.79	9.47
Return on Equity	250.37	250.37	0.00	250.37	251.06	0.69
Interest on Working Capital	103.43	104.39	0.96	103.46	97.54	(5.92)
O&M Expenses including water charges	332.88	334.60	1.72	344.52	346.50	1.98
Application Fee and Statutory Charges	0.00	0.34	0.34	0.00	2.66	2.66
Total Fixed Charges	**1,259.38**	**1,264.95**	**5.57**	**1,233.55**	**1,240.10**	**6.55**

Particulars	2021-22			2022-23		
	Approved	Truing up	Diff.	Approved	Truing up	Diff.
Depreciation	372.88	370.32	(2.56)	372.88	370.32	(2.56)
Interest on Loan	125.16	158.13	32.97	84.24	81.81	(2.43)
Return on Equity	250.37	251.75	1.38	250.37	251.75	1.38
Interest on Working Capital	103.52	91.27	(12.25)	103.53	90.82	(12.71)
O&M Expenses including water charges	356.64	358.38	1.74	369.12	371.38	2.26
Application Fee and Statutory Charges	0.00	0.55	0.55	0.00	0.19	0.19
Total Fixed Charges	**1,208.57**	**1,230.40**	**21.83**	**1,180.14**	**1,166.28**	**(13.86)**

Particulars	2023-24			Total FY 2019-20 to FY 2023-24		
	Approved	Truing up	Diff.	Approved	Truing up	Diff.
Depreciation	372.88	364.09	(8.79)	1,864.40	1,844.31	(20.09)
Interest on Loan	40.54	45.88	5.34	612.08	663.82	51.74
Return on Equity	250.37	251.75	1.38	1,251.85	1,256.68	4.83
Interest on Working Capital	103.47	103.97	0.50	517.41	487.99	(29.42)
O&M Expenses including water charges	382.08	384.47	2.39	1,785.24	1,795.33	10.09
Application Fee and Statutory Charges	0.00	0.40	0.40	0.00	4.15	4.15
Total Fixed Charges	**1,149.34**	**1,150.56**	**1.22**	**6,030.98**	**6,052.29**	**21.31**

D. Carrying Cost:

3.52 The Carrying Cost on the Trued-up amount for FY 2019-20 to FY 2023-24 as per the prevalent Bank rates in terms of Regulation 16 (4) of the UPERC Tariff Regulations, 2019 has been tabulated hereunder:

Table 12: Carrying cost computation for the Control Period (Rs. Crore)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Balance of Principal	0.00	5.57	12.12	33.94	20.09
Addition on account of Fixed Charges true up	5.57	6.55	21.83	(13.86)	1.22
Closing Balance of Principal	5.57	12.12	33.94	20.09	21.31
Average Balance	2.78	8.84	23.03	27.02	20.70
Carrying Cost on addition	12.05%	11.25%	10.50%	10.50%	12.00%
Total Carrying Cost	**0.34**	**0.99**	**2.42**	**2.84**	**2.48**
Total Carrying Cost					**9.07**

IV. Prayers

4.1 The Petitioner therefore in terms of submissions made above, most respectfully prays that this Hon'ble Commission be pleased to adjudicate upon the present Petition to:

a. Admit the Present Petition;

b. Approve Addition Capital Expenditure on Ash Dyke bund raising for Lagoon-1 (2nd Raising) in accordance with the Regulation 20(2)(vi) of UPERC Tariff Regulations, 2019;

c. Additional Capital Expenditure for Side Stream Filtration System in accordance with the Regulation 20(2)(vii) of UPERC Tariff Regulations, 2019; and,

d. Approve Truing up of Annual Fixed Charges for the Control Period FY 2019-20 to FY 2023-24;

e. Provide the workable excel model used by the Hon'ble Commission for approval of Truing up; and

f. Condone any shortcomings in the petition and allow the Petitioner to submit additional information as may be required by the Hon'ble Commission at a later stage.

Place: Lucknow **Rosa Power Supply Company Limited**

Date: 02.12.2024 **(Authorised Signatory)**

Uttar Pradesh Electricity Regulatory Commission

Lucknow

Petition No. 1529 of 2019

Filed by

ROSA POWER SUPPLY COMPANY LTD. (RPSCL)

IN THE MATTER OF:

TRUING UP OF TARIFF FOR 4X300 MW ROSA THERMAL POWER PLANT FOR STAGE I AND STAGE II (FY 2014-15 TO FY 2018-19)

Lucknow

Dated: 25.02.2022

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Petition Nos. 1529 of 2019

Before

UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

LUCKNOW

Date of Order:

Present:

Hon'ble Shri Raj Pratap Singh, Chairman

Hon'ble Shri Kaushal Kishore Sharma, Member

Hon'ble Shri Vinod Kumar Srivastava, Member (Law)

IN THE MATTER OF:

Petition under Regulation 6 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2014-15 to FY 2018-19.

M/s Rosa Power Supply Company Limited (RPSCL)

Petitioner

AND

Uttar Pradesh Power Corporation Ltd. (UPPCL)

Respondent

The Following were present:

1. Shri. Siteesh Mukherjee, Advocate, UPPCL
2. Shri. Abhishek Kumar, Advocate, UPPCL
3. Shri. Venkatesh, Advocate, RPSCL
4. Shri. Suhael Bhuttan, Advocate, RPSCL
5. Shri. Abhishek Nangia, RPSCL
6. Shri. Sumit Notani, RPSCL
7. Shri. Vamshee Mukund, RPSCL

1 BACKGROUND & PROCEDURAL HISTORY

1.1 Background

1.1.1 RPSCL set up a coal based thermal power station with installed capacity of 1200 MW in two Stages Stage I and Stage II of (2 x 300 MW) each. The entire capacity is tied up with UPPCL through Long Term Power Purchase Agreement approved by UPERC.

1.1.2 All the four units are operational at present. The unit wise COD achieved as under:

Table 1-1: Timelines approved by the Commission and the Actual COD

Units	Timelines approved by the Commission	Actual COD
Stage I		
Unit 1	March 31,2010	March 12, 2010
Unit 2	June 30, 2010	June 30,2010
Stage II		
Unit 3	March 31, 2012	January 01, 2012
Unit 4	July 31, 2012	April 01, 2012

1.2 Earlier orders of the Commission

1.2.1 UPERC vide orders dated February 02, 2006, November 01, 2006 and November 08, 2006, approved PPA between UPPCL and RPSCL for procurement of 600 MW of power from Unit 1 and Unit 2. The PPA was entered on 12.11.2006. The capital cost of the project was approved as Rs. 2641.63 Crore with COD of Unit 1 and Unit 2 to be achieved before 31.03.2010 and 30.06.2010 respectively. UPERC vide order dated May 08, 2007, approved the financial package of Stage I.

1.2.2 The Commission vide its Order dated April 08, 2009 allowed additional capital cost of Rs 470.88 Crore, which got added due to change in scope of work, statutory taxes, duties and change in cost of materials, making the total approved project cost of Rs 3112.81 Crore for Stage I subject to prudence check.

1.2.3 UPERC vide order dated June 15, 2009, approved the supplementary PPA for procurement of 300 MW of power from Stage II of the Project and approved Project cost of Rs 3098.6 Crore for Stage II subject to prudence check. Supplementary PPA was signed with UPPCL on September 11, 2009, for procurement of 300 MW from Stage II.

1.2.4 UPERC vide its Order dated May 17, 2010 approved provisional tariff for Unit-1 of Stage-I which was applicable for the period in between COD of Unit-1 & Unit-2. After commercial operation of the Unit-2, final tariff was approved by the Commission vide its Order dated March 28, 2011 for Stage-I for period from FY 2009-10 to FY 2013-14 subject to prudence check of Capital Cost at the time of filing of Tariff Petition for the next Tariff period.

1.2.5 Government of Uttar Pradesh vide G.O (Government Order) dated September 09, 2011 decided to purchase the remaining 300 MW offered by the RSPCL on cost plus basis (as stipulated in the PPA). The Commission vide its Order dated December 22, 2011, approved the Amendment to Supplementary PPA signed on November 19, 2011, for procurement of balance 300 MW from Stage II.

1.2.6 The Commission vide its Order dated May 21, 2012 provisionally approved fixed charge for Stage-II same as Stage-I for FY 2011-12 & 2012-13 as requested by RPSCL and UPPCL.

1.2.7 The Commission vide its **Order dated August 22, 2017 in the Petition No. 967 of 2014, 968 of 2014 and 1016 of 2015** approved Tariff for 4x300 MW Rosa Thermal Power Plant for Stage I & Stage II for the Second Control Period (FY 2014- 2015 to FY 2018-19). The Commission also further trued up the Tariff of 600 MW Rosa thermal power plant Stage 1 for FY 2009-10 to FY 2013-14 and determined the Tariff for 600 MW Rosa thermal Power Plant Stage-II (FY 2011-12 to FY 2013-14). The Commission approved the capital cost as under:

"3.2.5 The Commission appointed an Expert Committee for verification and prudence check of the additional capitalization and Capital cost of Stage-I and Stage-II. Expert Committee recommended as under:

Particulars	***Approved (Rs. In Crores)***	***Recommended by Expert Committee (Rs. In Crores)***
Stage 1 (as at 31.03.12)	*3112.83*	*3112.81*
Stage 2 (as at 31.03.13)	*3098.60*	*3093.02*
Additional Capital Cost	*550.02*	*517.28**

**Expert committee recommended that UPERC may consider the additional capital cost for pass through in tariff as and when the same are capitalised and submitted to UPERC in duly certified Form 5B certificates.*

3.2.6 The additional capital cost has been recommended by the Committee but since it was not capitalized, the prudence check could not be done by the Committee. The petitioner has submitted that Rs. 413.86 Crore has been capitalized till FY 2015-16 and Rs. 103.42 Crore is proposed to be capitalized in FY 2016-17.

.....

3.2.11 The Commission is of the view that since the additional Capital expenditure has not been verified by the Exert Committee, the additional capital expenditure capitalized till FY 2013-14 only i.e. Rs. 48.20 crore has been considered for the purpose of determination of tariff and True-up of tariff for Stage-II till 2013-14 and for determination of tariff of Stage-I and Stage-II for MYT Period. However, RPSCL may file a separate petition for approval of Additional Capital Cost for the period FY 2014-15 to FY 2018-19, which shall be approved subject to prudence check.

1.2.8 The Commission, with regard to the additional capitalization on account of discharge of liabilities has ruled as under:

" 3.2.19 .....Capital cost has been approved after deduction of net Undischarged Liability and considering discharge. The Capital cost till FY 2013-14 has been allowed after deducting undischarged liability as on COD and year wise discharge of liability till FY 2013-14 as under:

Stage-I	2010-11	2011-12	2012-13	2013-14
Opening Liability	452.98	390.56	46.86	15.21
Addition	0.00	0.00	0.00	0.00
Discharge	62.41	343.70	31.65	15.21
Closing Liability	390.56	46.86	15.21	0.00

Stage-II	2012-13	2013-14
Opening Liability	286.86	175.40
Addition	0.00	46.05
Discharge	111.45	0.00
Closing Liability	175.40	221.45
Capital Advances	41.02	26.68
Net Capital Liabilities	134.39	194.78

However, discharge of liability for the period FY 2014-15 to FY 2018-19 shall be considered while truing up of tariff for FY 2014-15 to FY 2018-19"

1.2.9 The Commission vide its Review Order dated April 25, 2018 in the Petition No. 1234 of 2017 had revised the various components of ARR for the period FY 2014-15 to FY 2018-19.

1.2.10 The Petitioner filed **Petition No. 1389 of 2018 for** quashing of impugned letters dated September 26, 2018, November 29, 2018 and bill statement dated December 5, 2018 regarding UPPCL's share in efficiency gain along with carrying cost for the period FY 2014-15 to FY 2016-17 calculated as per UPERC Generation Tariff Regulations, 2014. The Commission vide its Order dated May 30, 2019, in above petition has ruled as follows:

"18. The Commission quashes the recovery of Rs.293.40 crores issued vide debit note dated 26.09.2018 to the petitioner. The Commission

directs the petitioner to submit the true up application for FY 2015-16 to 2017-18 within next two months and the true up application for FY 2018-19 by 31.10.2019. After filing of the true up petition, the Commission will forthwith carry out the true up exercise for efficiency gains and would determine the efficiency gain due for sharing as per provisions of UPERC, Generation Tariff Regulations, 2014."

1.2.11 The Commission **vide its Order dated February 04, 2020 in the Petition No. 1233 of 2017** filed by the RPSCL in the matter of approval of additional capitalization for the period FY 2014-15 to FY 2016-17 approved an additional capitalization of Rs. 225.50 Crore for the period FY 2014-15 to FY 2016-17. The Petitioner was further directed to file True-Up Petition considering additional capital expenditure as approved by the Commission. The relevant extract of the Order is as follows:

"Summary of approval of additional capitalization for FY 2014-15 to FY 2016-17 is as below:

Sr. No.	*Item*	*Recommended by the Expert Committee*	*Approved by UPERC*	*Remarks*
1	*Wagon Tippler and Associated Facilities*	*272.35*	*125*	*As per Para 16.4 (A)*
2	*Other works of CHP Augmentation*	*20*	*20*	
3	*Works other than CHP Augmentation*	*81.03*	*80.5*	*As per Para 16.4 (B)*
Total		*373.38**	*225.5**	

**Expert Committee recommendation of Rs. 421.55 Crore less Rs 48.20 Crore approved earlier by Commission vide order dated 22.08.2017 in Petition no 967/2014, 968/2014 and 1016/2015."*

1.2.12 The Commission vide its Order dated March 08, 2021 in the Petition No. 1525 of 2019 filed by UPPCL seeking recovery of interest on working capital claimed by RPSCL against the interest free loan earned from the Petitioner on account of deferred tax liability benefits under the Uttar Pradesh Power Policy, 2003 for the period from FY 2010-11 to FY 2018-19 provided that:

"Commission's View

30. Therefore, in the absence of regulatory provisions for carrying out True-up of working capital under the UPERC (Terms and Conditions of Generation Tariff) Regulations, 2014 the claim of UPPCL for the control period of FY 2009-14 i.e., till 31.03.2014 is disallowed. Accordingly claim of carrying cost on this account is also rejected.

Regarding the claim of UPPCL seeking recovery of the excess interest

on working capital on account of non-funded components of Entry Tax and VAT on coal, and secondary fuel, for the control period FY 2014-19, the Commission shall decide the same while carrying out true up exercise of RPSCL in Petition No. 1529 of 2019 filed by the respondent for the control period FY 2014-19 in terms of relevant provisions of UPERC Generation Tariff Regulations, 2019.

The Petition is disposed of in terms of above."

1.2.13 The Commission **vide its Order dated April 06, 2021 in the Petition No. 1390 of 2018** filed by RPSCL seeking in principle approval of capital cost required to be incurred by the Petitioner for (i) enhancement of capacity of existing ICTs from 2X200 MVA to 2X315 MVA between Rosa 220 kV & 400 kV Switchyards in FY 2018-19 and (ii) Ash Dyke Bund raising works for Lagoon 2 and Lagoon 1 in FY 2019-20, of Rosa TPP provided that:

*"**Issue of ICT.....***
16. Both RPSCL and UPPCL have consensus that there is no constraint of power or tripping on account of the capacity of the 2x200 MVA. There being no Regulatory Provision for in-principal approval, the Commission is not presently inclined to deal with the proposed additional capitalisation of Rs. 25 Crore towards enhancement of capacity of ICT between 220 kV and 400 kV switch yard from 2x200 MVA to 3x315 MVA.

Commission's view
19. The Commission, in view of admission by RPSCL that there is no constraint to the power flow, is not inclined to deal at present with the proposed additional capitalisation of Rs. 25 Crore towards the enhancement of capacity of ICT between 220 kV and 400 kV switch yard from 2x200 MVA to 2x315 MVA.

However, with the upcoming power stations, the transmission network strengthening work is also carried out in parallel at all voltage levels in the State. Therefore, UPPTCL may undertake a detailed load flow study considering all future transmission network upgradation projects and generation capacity addition in the state and recommend whether 2x315 MVA ICT is required or not.

20. The Commission shall consider actual expenditure incurred on account of ash dyke after prudence check at the time of dealing with True-up Petition filed by the Petitioner."

1.3 RPSCL`S Petition Seeking Truing-Up of Capital Expenditure and Tariff for the Control Period (FY 2014-15 To FY 2018-19)

1.3.1 RPSCL has filed instant Petition No. 1529 of 2019 under Regulation 6 of UPERC (Terms and Conditions for Determination of Generation Tariff)

Regulations, 2014 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2014-15 to FY 2018-19 on November 20, 2019.

1.3.2 Further, the Commission, vide its Order dated February 04, 2020 in Petition No. 1233 of 2017 approved the additional capital expenditure and directed RPSCL to file the True up Petition considering the approved additional capital expenditure.

1.3.3 Accordingly, RPSCL filed the amended True-up Petition on February 24, 2020, wherein it has prayed the following:

a. Admit the present petition;

b. Approve tariff on the additional capital expenditure as approved by the Commission vide Order, dated 04.02.2020 in Petition No. 1233 of 2017;

c. Approve sharing of financial gains on account of controllable parameters for the control period during FY 2014-15 to FY 2018-19;

d. Approve capital cost and tariff for the Ash Dyke bud raising for lagoon-2 (1st Raising);

e. Approve tariff on the capital cost liability discharged during the period FY 2014-15 to FY 2018-19;

f. Approve truing-up of tariff for the control period FY 2014-15 to FY 2018-19;

g. Allow petitioner to recover the complete net truing-up amounts for FY 2014-15 to FY 2018-19 from UPPCL, immediately after the issuance of the truing-up Order;

h. Provide the workable excel model used by the Commission for approval of truing-up; and

i. Condone any shortcomings in the petition and allow the Petitioner to submit additional information as may be required by the Commission at a later stage.

1.4 Preliminary scrutiny of the Petition:

Preliminary Data Gap (Set -I)

1.4.1 The Commission vide Order dated 28.10.2020 had decided to conduct a Technical validation session on 20.11.2020 for which preliminary data gaps/ information /details shall be sought by the Commission. A preliminary analysis of the amended True-up Petition was conducted by the Commission wherein it was observed that some of the critical submissions were missing. The Commission vide Letter No. UPERC/Secy/D(G)/2020-21-1237 dated October 29, 2020 issued the preliminary deficiencies/queries in the Petition No. 1529 of 2019 and directed the Petitioner submit its reply by November 12, 2020.

1.4.2 However, the Petitioner did not submit its reply on the said date, and the Commission vide its Letter No. UPERC/Secy/D(G)/2020-21-1353 dated November 19, 2020 informed the Petitioner of the Technical Validation Session (TVS) scheduled on November 20,2020. The Petitioner submitted part replies to the Preliminary deficiencies/queries, which were received by the Commission on November 20, 2020.

1.4.3 The Commission vide its Letter No. UPERC/Secy/D(Generation)/2020-21-1511 dated December 17, 2020 again directed the Petitioner to submit remaining data. The Petitioner, vide letter dated December 23, 2020 submitted earlier pending replies which were received by the Commission on December 24, 2020.

Data Gap Set -II

1.4.4 The Commission after analysis of the replies, further sought queries vide its Letter No. UPERC/Secy/D(G)/21-1763 dated February 05, 2021 and the Petitioner submitted the replies on March 22, 2021.

Data Gap Set -III

1.4.5 The Commission vide its Letter No. UPERC/Secy/D(G)/ 21-323 dated July 2, 2021 communicated to the Petitioner that TVS in the matter of Petition No. 1529 of 2019 for true up of the period FY 2014-15 to FY 2018-19 is scheduled on July 7, 2021 at 11.00 AM through video conferencing and directed the Petitioner to depute authorized representative to discuss the issues pertaining to the True up Petition.

1.4.6 Subsequently, the above referred TVS in the Petition No. 1529 of 2019 was held on the scheduled date time and the minutes of TVS including certain additional queries were communicated to the Petitioner vide Letter No. UPERC/Secy/D(G)//21-355 dated July 8, 2021. The Commission directed the Petitioner to submit the replies to the queries sought vide TVS minutes latest by July 23, 2021 and also to submit the replies to the comments submitted by UPPCL vide its letter dated June 30, 2021.

1.4.7 The Petitioner vide its letter dated July 26, 2021 requested the Commission for 15 days extension to reply on afore said queries and subsequently submitted the data gap replies on August 10, 2021.

Data Gap Set -IV

1.4.8 Based on Petitioner's reply dated August 10, 2021, the Commission communicated certain additional queries to the Petitioner vide Letter No. UPERC/Secy/D(G)//21-552 dated August 17, 2021. The petitioner in this regard submitted its replies on September 29, 2021.

Data Gap Set -V

1.4.9 Based on Petitioner's reply dated September 29, 2021, the Commission sought additional information from the Petitioner vide Letter No. UPERC/Secy/D(G)/21-1319 dated December 22, 2021, which have been submitted on 27.01.2022.

UPPCL's Comment in the Petition

1.4.10 The Commission vide Order dated 28.10.2020 granted six weeks time to the Respondent UPPCL to submit their reply to the Petition. Subsequently, the Commission vide its Letter No. UPERC/Secy/D(G)/ 21-180 dated June 7, 2021 directed the Respondent i.e., UPPCL to submit its comments on the Petition No. 1529 of 2019 earliest by June 30, 2021. In response, UPPCL submitted its comments in Petition vide its letter dated June 30, 2021 and copy of same was also submitted to RPSCL.

1.4.11 The Petitioner submitted its rejoinder vide its letter dated August 31, 2021, in reply to the objections raised by the UPPCL, same has been received by the Commission on September 01, 2021.

1.4.12 Based on the Petitioner's rejoinder dated August 31, 2021, UPPCL vide its letter dated November 20, 2021 submitted sur-rejoinder, wherein it has

highlighted several deficiencies in Petitioner's rejoinder. Based on sur-rejoinder dated November 20, 2021, the Commission vide it letter vide its letter ref no. UPERC/Secy/D(G)/2020-21-1211, dated December 09, 2021 directed UPPCL to submit an affidavit, provide further clarification regarding fuel charges as submitted in sur-rejoinder.

1.4.13 UPPCL vide its letter dated December 21, 2021 requested the Commission to provide time extension. Further, UPPCL vide its letter to the Commission dated December 29, 2021, submitted additional affidavit providing the requested information.

The summary of data gaps by the Commission and replies submitted is as under:

Sl. no.	Particular	Communicated to RSPCL through letter dated	Reply submitted by the RSPCL/UPPCL through its letter dated
1.	Preliminary Data Gap raised by the Commission	October 29, 2020	November 18, 2020 December 23, 2020
2.	Data Gap Set II- raised by the Commission	February 05, 2021	March 22, 2021
3.	Data Gap raised by the Commission based on TVS (Data Gap Set III)	July 7, 2021	August 09, 2021
4.	Data Gap Set IV- raised by the Commission	August 17, 2021	September 29, 2021
5.	Comment/ Objection by UPPCL in the Petition	June 30, 2021	August 31, 2021
6.	Sur-Rejoinder by UPPCL	November 20, 2021	-
7.	Query to UPPCL on fuel charges	December 09, 2021	December 29, 2021
8.	Data Gap Set V- raised by the Commission	December 22, 2021	January,27,2022

1.4.14 **This is to bring on record that the Commission had scheduled the TVS on November 20, 2020, however due to delay in/incomplete information filing by RPSCL, the TVS was held on July 7, 2021 and subsequent information was submitted on September 29, 2021 and January 27, 2022. Further, UPPCL had submitted its reply only on June 30,2021 and submitted subsequent information on December 29, 2021.**

1.4.15 The comments/ suggestions/ objections/ representations on true-up Petition and RSPCL's response thereon, have been captured in detail at Annexure-A of this Petition.

1.5 Data gap raised by the Commission and RSPCL's response thereon

1.5.1 The summary of data gap raised by the Commission during the scrutiny of Petition and RPSCL's response on same is shown in Table below:

Ref. no.	Query Sought	Remark
1st Set of Queries raised by the Commission on October 29 ,2020		
A (1)	RPSCL shall submit all the Forms with all internal linkages and formulae in workable excel file.	Forms with linkages and punched values was submitted.
A (2)	RPSCL shall submit the Petition in soft copy.	Submitted
A (3)	All further replies and rejoinders shall be submitted in workable soft and hard copy.	
B (1)	The Petitioner to furnish the detailed calculation of depreciation as per the Form 11 provided in the Appendix II of the Generation MYT 2014 Regulations.	Petitioner did not submit the details in requested Format.
B (2)	The Petitioner to fill the Forms as provided in the Appendix II of the Generation MYT 2014 Regulations to the minutest information as possible without leaving any form.	Petitioner stated that the requested format shall be submitted Post TVS discussion.
B (3)	The Petitioner to submit the audited accounts of the company for 2014-15 to 2018-19.	Submitted
B (4)	The Petitioner shall submit the month wise for FY 2014-15 to FY 2018-19 computation of normative fuel cost and actual fuel cost for the Control Period in the prescribed Format.	Petitioner did not provide requested computation.
B (5)	The above details shall be supported by documentary evidence for month wise energy scheduled, coal invoices along with details of various types of coal received and prices, FSA copy, contract copy of imported coal, communication with UPPCL for purchase of imported coal, if any.	Petitioner partially submitted the document only for the month of Oct 2018.
B (6)	The Petitioner shall submit details of month-wise and Stage-wise coal quantity in the form of Opening Balance, Coal Supplied, Coal consumption, and Closing balance for Indigenous Coal and Imported Coal separately along with GCV as received certified	RPSCL submitted auditor certificate only for the month of Oct 2018.

Ref. no.	Query Sought	Remark
	by accredited agency for FY 2014-15 to FY 2018-19.	
B (7)	Petitioner shall submit actual month wise details of GSHR, Secondary Oil Consumption and transit loss etc.	Submitted requested data.
B (8)	Petitioner should submit all cost / expenditure/ liability related certificates duly certified by Statutory Auditor. The Petitioner should also submit details of actual capitalisation against the add cap approved by the Commission for FY 2014-15 to 2018-19.	Petitioner did not submit liability flow statement certified by the auditor.
B (9)	The Petitioner shall submit the details of actual loan portfolio for the Control Period FY 2014-15 to FY 2018-19 and provide documentary evidence for the source-wise rate of interest.	Documentary evidence for the source-wise rate of interest not submitted. Loan portfolio submitted were not matching with audited account.
B (10)	The Petitioner has considered Rate of Interest on Working capital as 13.50% for FY 2014-15 to FY 2018-19 while the RBI bank rate as per the website is 9.00% for FY 2014-15, 8.50% for FY 2015-16, 7.75% for FY 2016-17, 6.50% for FY 2017-18 and 6.25% for FY 2018-19. The Petitioner should clarify the basis of consideration of the same.	Petitioner has retained the IoWC as allowed in Order dt. 22.08.2017, keeping all component same, except the revision of receivable based on change in fixed charges.
B (11)	The Petitioner shall submit the details of month wise and Stage wise sale of energy for FY 2014-15 to FY 2018-19 to all the beneficiaries through open market.	Petitioner submitted that no open market sale has been done.
2nd Set of Queries raised by the Commission on February 05, 2021		
A (1)	The Petitioner should furnish actual yearly O&M expenses from the audited accounts for the Control Period (FY 2014-15 to FY 2018-19).	Petitioner submitted that Regulations do not specify for true up of O&M expenses.
A (2)	The Petitioner should submit the documentary proof of actual rate of interest of Loan for Control Period.	Documentary evidence for the source-wise rate of interest not submitted.
A (3)	The Petitioner should submit the details of sharing of financial gains on the impact of floating rate of interest.	Petitioner stated that there is no re-financing of loan during FY 2014-15 to FY 2018-19.
A (4)	The Petitioner should submit the bills of statutory charges paid by it for FY 2014-15 to FY 2018-19 if any.	Petitioner submitted the details of water charges, water cess, payment ot pollution control board,

Ref. no.	Query Sought	Remark
		taxes etc.
B (1)	The Petitioner should provide separately details of Coal cost and Oil cost (in Rs. Crore) for the Control Period (FY 2014-15 to FY 2018-19).	The Petitioner has only submitted secondary fuel oil details.
B (2)	The GCV certification for domestic/ imported coal shall also be submitted	RPSCL has submitted GCV certificate provided by CIMFR for the Month of Dec 2018 only.
3rd Set of Queries raised by the Commission on July 08,2021 (TVS)		
1	The Petitioner is required to submit the reconciliation of the figures of closing loan and interest amount for 'Foreign currency loans from banks' and 'Rupee loans from banks' as submitted in Form 13 for the period FY 2014-15 to FY 2018-19 with the audited accounts for each year of the Control Period along with justification/clarifications with respect to any adjustments made.	Interest rate submitted was as per interest rate approved in MYT Order, dated 22 August 2017. The interest expense was not properly reconciled with the audited accounts and certain variations were observed.
2	The Petitioner is required to submit the revised Annexure 2 including the following information: (i) Month wise Actual Auxiliary Consumption (%) for the period FY 2014-15 to FY 2018-19. (ii) Month wise power scheduled for the period FY 2014-15 to FY 2018-19. (iii) Month wise domestic coal consumption for the period FY 2014-15 to FY 2018-19. (iv) Month wise imported coal consumption for the period FY 2014-15 to FY 2018-19.	Petitioner do not provide the same and submitted that the essential component for computation of gain sharing is under reconciliation between RPSCL and UPPCL.
3(i)	In respect of Annexure 4 of the Petitioner's submission dated March 22, 2021, the Petitioner is required to provide **complete set of GCV Certificates of Domestic Coal as certified by CIMFR** for at least one month (for all the samples collected in that particular month) in a quarter for the period FY 2014-15 to FY 2018-19 i.e., certificates of at least 4 months per year for the 5-year period FY 2014-15 to FY 2018-19 (i.e., 20 months). With respect to the GCV Certificates already submitted for the month of December 2018,	Petitioner submitted that from April 2014 to October 2018, **GCV was certified by the RSPL's own laboratory (NABL accredited lab)** and CIMFR certificate commenced from the month of November 2018. Petitioner has submitted

Ref. no.	Query Sought	Remark
	Petitioner is required to submit the GCV certificates for all the missing samples in the month of December 2018 viz. 4 No. of Samples collected on December 1, 2018, all the samples collected during December 15, 2018 to December 17, 2018.	the hand written lab entries, coal analysis report from April 2014 to October 2018
3(ii)	During the TVS, it was informed that RPSCL raises monthly invoices for energy charges based on GCV certified in their own labs and then upon receipt of GCV certificates from CIMFR after about 18 days, adjustments in the next monthly invoices are done. In this regard, the Petitioner is required to submit the copy of the Contract carried out with CIMFR.	Submitted the requested details
3(iii)	In respect of Statutory Auditor Certificate and Annexure 2A provided as part of Annexure 4 (Page No. 460 -461) of Petitioner's submission dated 20.11.2020 wherein the details for the month of October 2018 were only certified, the Petitioner is required to provide the same (Page No. 460-461) for rest of months during the period FY 2014-15 to FY 2018-19.	Petitioner submitted requested details. However, certificate for some months were missing in its submission.
3(iv)	Complete set of GCV Certificates of Imported Coal certified by Independent Agencies along with accreditation details for all the months (for all the samples collected in that particular month) in which there is a receipt of Imported Coal.	Petitioner submitted requested details.
4	The Petitioner is required to provide Cost Audit Report for each year of the period FY 2014-15 to FY 2018-19.	Petitioner submitted requested details.
5	The Petitioner is required to provide the Actual O&M expenses incurred during the period FY 2014-15 to FY 2018-19 with detailed breakup with respect to Audited Accounts.	Detailed break-up of actual O&M expenses incurred during the period FY 2014-15 to FY 2018-19 are not provided.
6	The petitioner is required to provide statutory auditor certificate in support of additional capitalisation based on cash basis along with the debt equity ratio for the period FY 2014-15 to FY 2018-19.	The Petitioner submitted that due to quarterly account closure issuance of certified from statutory auditors are delayed and the same will be submitted shortly.

Ref. no.	Query Sought	Remark
7	The Commission, vide its Order dated August 22, 2017 had approved the 'Closing Liability' and 'Net Capital Liabilities (net of Capital Advances)' of Rs. 221.45 Crore and Rs. 194.78 Crore. The Petitioner, in the instant Petition claimed discharge of liabilities of Rs. 221.45 Crore (sum of Rs. 82.37 Crore and Rs. 139.08 Crore discharged during the years FY 2014-15 Crore and FY 2015-16 respectively). In this regard, the Petitioner is required to provide: (a) the justification on the above discrepancy, and; (b) the final figures along with the liability flow statement for each year of the control period FY 2014-15 to FY 2018-19 on cash basis as provided in Form 14A duly certified by the statutory auditor.	Liability flow statement not provided by the petitioner
8	The Petitioner has claimed an additional capitalization of Rs. 22.49 Crore towards 1st raising Lagoon 2 of Ash dyke in FY 2018-19 under Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014. In this regard, the Petitioner is required to substantiate its claim under Regulation 22 (2)(iv) i.e., the raising of ash dyke works were included under the original scope of works along with supporting documents.	Petitioner has not provided any supporting document to substantiate its claimed additional capitalisation under Regulation 22 (2)(iv).
9	The Petitioner, in the Petition dated February 24, 2020 has provided the Auditor certificate in support of following: (a) Sharing of Efficiency Gain on controllable Parameters. (b) liability to vendors towards capital cost. (c) additional capitalization of Rs. 22.49 Crore (d) documentary proof in support of actual loan It has been submitted that the above certificates were independently verified by a qualified Auditor. In this regard, the Petitioner is required to provide all the above certificates duly certified by the Statutory Auditor.	The Petitioner submitted that due to quarterly account closure issuance of certified from statutory auditors are delayed and the same will be submitted shortly.
4th Set of Queries raised by the Commission on August 17, 2021		
1	Petitioner to provide actual loan portfolio for each year reconciled with the audited account, along with	Petitioner submitted the Weighted average

Ref. no.	Query Sought	Remark
	the computation of weighted average Interest Rate. Also required to certify the weighted average loan computation from the statutory auditor.	Interest rate computation certified by the Auditor, however, the same was also found to be erroneously computed.
2	Petitioner is required to submit the missing statutory auditor certificate w.r.t coal stock details.	Submitted requested details
3	The Petitioner to provide summary for month-wise and vessel-wise Imported coal procurement detail.	Petitioner provided the details in requested format.
4	The Petitioner in 3rd Data gap, submitted that the Energy charge calculations are yet to be reconciled with UPPCL. In view of the above, the Petitioner is required to provide the revised final working of coal data and gain sharing.	Petitioner submitted that revised Energy Charge computation is still under review by the UPPCL.
5	The Petitioner to submit replies to the comments/ objections raised by UPPCL.	The Petitioner submitted the same separately on 31.8.2021.
6	The Petitioner has discharged the liability of Rs. 194.78 Crore in FY 2014-15 and FY 2015-16. The Petitioner is required to substantiate same with the liability flow statement certified by the statutory auditor.	Petitioner provided vendor-wise Liability as on 31.03.2019. Year wise discharge details not provided.
7	Petitioner to provide Statutory Auditor Cert. in support of additional capitalization claimed on Cash basis for FY 2014-15 to FY 2018-19, along with the debt-to-equity ratio for period.	Petitioner provided requested details.
8	Petitioner to provide Statutory Auditor Cert. in support of additional capitalization of Rs. 22.49 Crore.	Petitioner provided the auditor certificate on accrual basis
9	Petitioner to provide Auditor Cert. in support of sharing of efficiency gain on controllable parameter.	Petitioner submitted that monthly invoice reconciliation are under review.
10	Petitioner to substantiate its claim against additional capitalization of Rs. 22.49 Crore towards 1st raising Lagoon 2 of Ash dyke in FY 2018-19 under Regulation 22 (2) (iv) of the UPERC Generation Tariff Regulations, 2014. (Deferred work related to ash pond or ash handling system in the original scope of work)	Petitioner provided the Report on Specification for Ash Handling System for Stage-1.

Ref. no.	Query Sought	Remark
11	The Petitioner is required to submit justification for submission of documents with no authority signatory and stamp. Further, the Petitioner is also required to provide the documentary proof in support of its claim of NABL Accreditation of lab.	Petitioner submitted the requested details.
12	Petitioner to provide the month-wise scheduled generation (MUs) duly certified by SLDC.	Petitioner submitted the requested details.
5th Set of Queries raised by the Commission on December 22, 2021		
1.	Petitioner was asked to the Auditor certified cash-basis expenditure for Ash Dyke along with Debt:Equity deployed	Petitioner submitted the required details.

2 REGULATORY FRAMEWORK

2.1.1 The Electricity Act, 2003 (hereinafter referred to as EA, 03) came into effect from June 10, 2003 which repealed all the erstwhile electricity Acts in the country viz. Indian Electricity Act, 1910 (9 of 1910), The Electricity (Supply) Act, 1948 (54 of 1948) and the Electricity Regulatory Commissions Act, 1998 (14 of 1998). Under section 61 of EA, 2003, the State Electricity Regulatory Commissions require to notify terms and conditions for determination of tariff of generation, transmission & distribution. Section 86 of the Act mandates the Electricity Regulatory Commission to determine tariff in respect of Generating Companies and Licensees.

2.1.2 In exercise of powers conferred under 181 read with the provisions of the section 61 of the EA 2003, UPERC notified UPERC (Terms and Conditions of Generation Tariff) Regulations, 2009 (hereinafter referred to as Generation Regulations, 2009) w.e.f. April 01, 2009 amended on March 20, 2012, which remained effective till March 31, 2014. The Commission further notified the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulations, 2014 have been notified on December 16, 2014. Further the Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions of Generation Tariff) Regulations, 2019 have been notified on September 11, 2019. These Regulations are applicable for determination of Tariff for a generating station or a unit thereof required to be determined by the Commission under Section 62 of the Act read with Section 86 thereof from April 1, 2019 to a period of 5 years up to March 31, 2024, unless reviewed earlier or extended by an Order of the Commission.

3 TRUING UP OF 4X300 MW ROSA TPP (STAGE I AND STAGE II) FOR FY 2014-15 TO FY 2018-19

3.1 Commission`s approved MYT for FY 2014-15 to FY 2018-19

3.1.1 The Commission vide its Order dated August 22, 2017 in Petition No. 967/2014, 968/2014 and 1016/2015 approved the Tariff for the Second Control Period (FY 2014-15 to FY 2018-19).

3.1.2 Further the Commission vide its Order dated April 25, 2018 in the Petition No. 1234 of 2017 reviewed the Order and revised the Tariff for the Second Control Period (FY 2014-15 to FY 2018-19). The Annual fixed charges approved by the Commission were as under:

Table 3-1: Revised components of ARR approved in Order dated April 25, 2018 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Return on Equity	247.24	247.24	247.24	247.24	247.24
Depreciation	347.31	347.31	347.31	347.31	347.31
Advance against Depreciation	-	-	-	-	-
Interest on Loan	336.55	294.41	252.98	222.69	193.68
Interest on Working Capital	175.60	174.90	174.75	175.11	175.57
O&M Expenses (Normative)	239.40	254.52	270.48	287.52	305.64
Total	**1,346.09**	**1318.38**	**1292.76**	**1279.87**	**1269.43**
Ex-bus Energy Sent Out	8131.03	8153.31	8131.03	8131.03	8131.03
Capacity per unit charge	1.66	1.62	1.59	1.57	1.56

3.1.3 The truing up exercise in the present Petition has been undertaken by the Commission in the backdrop of and in reference to the aforesaid order and earlier passed orders as detailed in section "1.2 'Earlier Orders of the Commission" above.

3.2 Approach to this Order

3.2.1 The UPERC Generation Tariff Regulations, 2014 provides the following for True Up:

"6. Truing up of Capital Expenditure and Tariff:

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up.

(2) The generating company shall make an application, as per Appendix II to these regulations, for carrying out truing up exercise in respect of the generating station or any of its units or block of units thereof by 31.10.2019.

(3) The generating company shall submit for the purpose of truing up, details

of capital expenditure and additional capital expenditure incurred duly audited and certified by the auditors.
Provided the Commission may appoint a separate independent auditor who, under the supervision of the Commission, shall undertake technical and financial audit of the generating station at any time.

(4) The Commission shall also carry out truing up of tariff of generating stations based on the performance of following controllable parameters:

(a) Gross Station Heat Rate;
(b) Secondary Fuel Oil Consumption;
(c) Auxiliary Energy Consumption; and
(d) Re-financing of Loan.

(5) The Commission shall carry out truing up of tariff of generating stations based on the performance of following uncontrollable parameters:

(a) Force Majeure;
(b) Change in Law; and
(c) Primary Fuel Cost

(6) The financial gains by a generating company on account of controllable parameters shall be shared between generating company and the beneficiaries. The financial gains computed as per following formulae in case of generating station on account of operational parameters contained in Clause (4) (a) to (c) above shall be shared in the ratio of 80:20 between generating company and the beneficiaries:

Net Gain = (ECR_N – ECR_A) x Scheduled Generation

Where,

ECR_N – Normative Energy Charge Rate computed on the basis of norms specified/approved for Gross Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption.

ECR_A – Actual Energy Charge Rate computed on the basis of actual Gross Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption for the month.

Provided that in case of financial gains on account of parameters contained in Clause (4)(d) above shall be shared in accordance with Clause (i) (e) of Regulation 25 & Regulation 44 of these regulations.

(7) The financial gains and losses by a generating company on account of uncontrollable parameters shall be passed on to beneficiaries of the generating company.

(8) Where after the truing up the tariff recovered exceeds the tariff approved by, the Commission under these regulations the generating company shall refund to the beneficiaries, the excess amount so recovered along with simple interest at the rate equal to the Bank Rate prevailing as on 1st April of the respective Year.

(9) Where after the truing up the tariff recovered is less than the tariff approved by the Commission under these regulations the generating company shall recover from the beneficiaries, the under-recovered amount along with simple interest at the rate equal to the Bank Rate, prevailing as

on 1st April of the respective Year.

(10) The amount under-recovered or over-recovered, along with simple interest at the rate equal to the Bank Rate as on 1st April of the respective Year, shall be recovered or refunded by the, generating company, in six equal monthly installments starting within three months from the date of the tariff order issued by the Commission after the truing up exercise."

3.2.2 RPSCL filed instant Petition No. 1529 of 2019 under Regulation 6 of UPERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2014 read with Section 61, Section 62 and Section 86 of Electricity Act, 2003 seeking approval of truing up of Capital Expenditure and Tariff for the Control Period FY 2014-15 to FY 2018-19 on November 20, 2019. The Annual Fixed charges claimed in the Petition were as under:

Table 3-2: Annual Fixed Charges claimed by Petitioner for True-up of the Control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
STAGE I+ STAGE II					
Return on Equity	249.21	254.53	257.87	257.87	258.41
Depreciation	349.66	355.99	359.96	359.96	360.61
Interest on Loan	339.26	303.94	265.74	234.38	205.09
Interest on working capital	175.76	175.49	175.58	175.92	176.40
O&M expenses	239.40	254.52	270.48	287.52	305.64
Total	**1,353.30**	**1,344.47**	**1,329.63**	**1315.65**	**1306.15**

3.2.3 Further, the Commission, vide its Order dated February 04, 2020 in Petition No. 1233 of 2017 approved the additional capital expenditure and directed RPSCL to file the True up Petition considering the approved additional capital expenditure. Accordingly, RPSCL filed the amended Petition on February 24, 2020. The Annual Fixed charges claimed are as under:

Table 3-3: Amended Annual Fixed Charges claimed by Petitioner for True-up of the Control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
STAGE I+ STAGE II					
Return on Equity	253.36	263.82	268.43	268.69	269.23
Depreciation	354.60	367.05	372.54	372.85	373.49
Interest on Loan	344.96	315.91	277.95	245.87	215.56
Interest on working capital	176.10	176.23	176.39	176.73	177.18
O&M expenses	239.40	254.52	270.48	287.52	305.64
Total	**1,368.42**	**1,377.53**	**1,365.79**	**1,351.65**	**1,341.11**

3.2.4 The Commission in the instant Order has considered the Petitioner's amended submission dated February 04, 2020.

3.3 Truing-up of 4X300 MW ROSA TPP (Stage I and Stage II) for FY 2014-15 to FY 2018-19

ADDITIONAL CAPITALIZATION CLAIMED IN ACCORDANCE WITH THE COMMISSION'S ORDER DATED 04.02.2020 IN PETITION NO. 1233/2017

3.3.1 The Petitioner had filed the Petition No. 1233 of 2017 under section 62 of the Electricity Act, 2003 read with Regulation 22 of the UPERC Generation Tariff Regulations, 2014 and in terms of liberty granted in Para 3.2.11 of the Order dated 22.08.2017 in Petition No. 967/2014, 968/2014 and 1016/2015 and prayed for determination and approval of tariff in respect of additional capital works capitalized for the period FY 2014-15 to FY 2018-19. The Commission, after considering the submissions of RPSCL and UPPCL passed an Order dated 04.02.2020 approving an additional capital expenditure of Rs 225.50 Crore for the period FY 2014-15 to FY 2016-17. The said approval was against the claim of Rs 421.55 Crore (including Rs. 48.20 Crore which was already approved by the Commission during the previous true up proceedings) recommended for approval by the Expert Committee appointed by the Commission. The approved additional Capital Expenditure is shown in the Table below:

Table 3-4: Details of Additional Capital Expenditure as approved by the Commission (Rs. Crore)

Sr. No.	Item	Cost recommended by the Expert Committee	Approved by the Commission vide Order dated 04.02.2020
1	Wagon Tippler and Associated Facilities	272.35	125
2	Other works of CHP Augmentation	20	20
3	Works other than CHP Augmentation	81.03	80.5
Total		**373.38***	**225.5***

**Expert Committee recommended approval of Rs 421.55 Crore including Rs 48.20 Crore which has been approved earlier by this Hon'ble Commission vide order dated 22.08.2017 in Petition no 967/2014, 968/2014 and 1016/2015.*

3.3.2 The Petitioner has considered the said expenditure during the period FY 2014-15 to FY 2016-17 and the actual additional capitalization in these years being higher than that of approved by the Commission, worked out the year wise approved additional capital expenditure for FY 2014-15 to FY 2016-17 by apportioning the total approved expenditure of Rs 225.50 Crore in the ratio of actual capitalization during the particular year to the total additional capitalization during the period FY 2014-15 to FY 2016-17 i.e. Rs 384.56 Crore as shown in the Table below:

Table 3-5: Details of Apportioned Capitalisation as claimed by the Petitioner for FY 2014-15 to FY 2016-17 (Rs. Crore)

Particular	FY 2014-15	FY 2015-16	FY 2016-17	Total
Actual Capitalization	294.49	71.17	18.90	**384.56**
Approved by Commission in Order dated February 4, 2020				**225.50**
Apportioned based on actual capitalization	172.68	41.74	11.08	**225.50**

ADDITIONAL CAPITALIZATION ON ACCOUNT OF ASH DYKE BUND RAISING OF LAGOON-2 (1ST RAISING) in FY 2018-19 as CLAIMED IN PETITION NO. 1390/2018

3.3.3 The Petitioner has submitted that for the work related to Ash Pond Works which are of continuous nature during the entire operational life of the power plant, it has claimed expenditure in FY 2018-19. The Petitioner submitted that Ash pond management is dynamic in nature and needs capacity enhancement and strengthening periodically. It is an industry wide practice being followed by the power plants across the world on a periodic basis. Further, raising of Ash Dyke falls within the scope and purview of Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014 and the same are being reproduced as follows:

"(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature for new or existing projects actually incurred after the cutoff date may be admitted by the Commission, subject to prudence check:

....

(iv) Deferred works relating to ash pond or ash handling system in the original scope of work.

....

(vi) Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level; and"

3.3.4 The Petitioner submitted that Rosa TPP's Ash dyke has been in operation since 2010. In due course of operation of Rosa TPP, the capacity of Lagoon-1 & Lagoon-2 got exhausted by March 2016. In such circumstances, the Bund raising work of Lagoon-1 was commenced by RPSCL in FY 2015-16. RPSCL created an additional capacity of 17 Lakh Cum to meet out its

requirement. However, the aforesaid bund raising also got exhausted and therefore RPSCL was forced to undertake the work for 1st Bund Raising works of Lagoon 2.

3.3.5 The Petitioner submitted that actual expenditure incurred for undertaking the aforementioned works is Rs.22.49 Crore for which the Petitioner is requesting this Commission to approve the same in this Petition in terms of Regulation 22 (iv) & (vi) of the UPERC Generation Tariff Regulations, 2014. It is highlighted that the Capital Expenditure incurred by RPSCL also been independently verified by a qualified auditor.

3.3.6 The Petitioner further added that the CERC repeatedly permitted Additional Capitalization of Ash Bund raising through various Orders and they are as follows:

"(a) NTPC Ltd. vs. Andhra Pradesh Eastern Power Distribution Company Ltd [Petition No. 270/GT/2014]:

"14 The petitioner has claimed Rs. 383.00 lakh in 2014-15, Rs. 2300.00 lakhs in 2015-16, Rs. 1406.00 lakhs in 2016-17, Rs. 1124.00 lakh in 2017-18 and Rs. 2783.00 lakh in 2018-19 towards works of ash dyke raising consisting of two Lagoons i.e. lagoon-1and lagoon-2. We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the approved scheme under original scope of work. As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19. However, the petitioner is directed to submit at the time of truing up of tariff, the detail break-up of the activities along with the cost incurred for each work under the Raising of Ash Dyke works, the estimated expenditure envisaged for Ash Handling system/ Ash Dyke Raising in the original scope of work, the actual expenditure incurred as on COD of the generating station and from COD to 2018-19."

(b) NTPC Ltd. vs. West Bengal State Electricity Distribution Company Limited & Ors. [Petition No. 281/GT/2014]:

"14. We have examined the matter. It is observed from the submissions of the petitioner that expenditure projected towards ash dyke raising is for planned works related to ash pond/ ash handling system which is of continuous nature during the operational life of generating station and the works claimed are as per the approved scheme under original scope of work. The petitioner has submitted newspapers extracts from 2011 depicting the coverage of the issues pertaining to ash disposal. As the expenditure is covered under original scope of works and based on environmental considerations the said expenditure is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations for the period 2014-19."

Commission's Analysis:

A. Additional capitalization in accordance with the Commission's order dated 04.02.2020 in Petition No. 1233 of 2017

3.3.7 The Commission observed that the Petitioner has claimed the additional capitalisation during FY 2014-15 to FY 2016-17 aggregating to Rs. 225.05 Crore, in proportion to total assets capitalised of Rs. 384.56 Crore by the Petitioner during these Financial Year.

3.3.8 In response to the Commission's direction, the Petitioner submitted the auditor certificate dated 15.1.2018 showing scheme-wise details for capital expenditure of Rs. 384.46 Crore from FY 2014-15 to FY 2016-17.

3.3.9 For the break-up of year wise capitalization, the Commission has computed capitalization under CHP (Rs. 145.00 Crore) and non-CHP (Rs. 80.50 Crore) augmentations as approved vide Order dated 04.02.2020 in Petition No. 1233 of 2017 and corroborated with the capitalization as recommended by the Expert Committee.

Table 3-6: Details of Additional Capitalisation apportioned by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Wagon Tippler and Associated Facilities	119.71	3.12	2.17	0.00	0.00	125.00
Other works of CHP Augmentation	0.00	11.88	8.13	0.00	0.00	20.00
Works other than CHP Augmentation	30.45	46.27	3.79	0.00	0.00	80.50
Total Additional Capitalization	**150.16**	**61.26**	**14.08**	**0.00**	**0.00**	**225.50**

3.3.10 However, as per Regulation 19(2) of the UPERC Generation Tariff Regulations, 2014, during the True-up of capital cost, undischarged liabilities must be excluded before capitalisation of asset. Accordingly, the Commission directed the Petitioner to submit the statutory auditor certificate for the claimed additional capitalisation on cash basis. In response, the Petitioner submitted the auditor certificate dated 05/10/2018 submitted in 4th Data Gap showing scheme-wise cash payment details for capital expenditure from FY 2014-15 to FY 2016-17 and the payments to vendors spreading over FY 2013-14 to FY 2018-19, against each scheme, for each year separately.

3.3.11 The Commission has gone through the submission of the Petitioner and the. Basis the cash basis certificate dated 5/10/2018, the Commission has

segregated the cash expenditure incurred for payments to vendors against each approved scheme for capitalization of Rs. 225.50 Crore, for each year (FY 15 to FY 19) separately. The Petitioner has not provided the exact year of payments to certain vendors in the details submitted and has mentioned various dates. The total payments on various dates in Rs. 18.97 Crores. The Commission has considered all payments mentioned as various dates, as have being paid in FY 2018-19. Accordingly, the Commission has computed the scheme-wise cash expenditure for each year from FY 2014 -15 to FY 2018-19 is shown in Table below:

Table 3-7: Details of scheme-wise Additional Capitalisation on cash basis as computed by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Various dates (FY 2018-19)	Total
Ultra filtration Unit in DM Plant	0.02	0.82	0.00	0.00	0.00	0.00	0.84
Additional DM water storage tank	0.00	1.90	0.00	0.00	0.00	0.00	1.90
Ash handling Plant	2.17	7.34	17.88	0.07	0.00	0.19	27.65
Hydrogen Generation Plant	0.25	4.73	6.16	0.04	0.00	0.00	11.18
Stator Cooling water Alkalizer	0.00	0.00	0.00	0.83	0.00	0.00	0.83
Turbine Lube Oil Modification	0.70	1.29	6.04	0.00	0.00	0.00	8.03
Side Stream Filtration	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Install of 5th Circulating water pump	0.49	7.67	0.97	0.00	0.00	0.00	9.13
Electrical System Augmentation	0.00	5.59	1.70	0.23	0.00	0.00	7.52
Coal Handling Plant Augmentation	45.60	67.73	9.95	3.27	0.06	18.40	145.00
Control & Instrumental Aug.	0.00	2.12	0.40	0.00	0.00	0.00	2.53
Stores Augmentation	0.00	2.83	0.00	0.00	0.00	0.00	2.83
Various Civil Works	0.05	6.83	2.29	0.63	0.00	0.38	10.18
Total Capitalization	**49.30**	**108.85**	**45.38**	**5.07**	**0.06**	**18.97**	**227.63**
Disallowance (by Expert Committee)	**1.52**	**0.17**	**0.44**				
Capitalisation allowed on cash basis	**47.78**	**108.68**	**44.94**	**5.07**	**0.06**	**18.97**	**225.50**

3.3.12 Further, the overall cash basis additional capitalization for the control period, and corresponding undischarged liability and discharge of liability considered by the Commission is as under:

Table 3-8: Details of Additional Capitalisation on cash basis as computed by the Commission for the Control Period (FY 2014-15 to FY 2018-19)

(Rs. Crore)

		FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Additional Capitalization apportioned	A	150.16	61.26	14.08	0.00	0.00	225.50
Additional Capitalization (cash basis)	B	47.78	16.03	5.37	0.00	0.00	69.19
Undischarged Liability (from above)	C=A-B	102.38	45.23	8.71	0.00	0.00	156.31
Discharge of liability on Add cap	D	0.00	92.65	39.57	5.07	19.03	156.31
Cumulative Discharge of Liability	E	0.00	92.65	132.22	137.28	156.31	
Total cash basis additional capitalization	**F=B+D**	**47.78**	**108.68**	**44.94**	**5.07**	**19.03**	**225.50**

B. Additional capitalization on account of ash dyke bund raising of lagoon-2 (1st raising)

3.3.13 The Petitioner in Petition No. 1390 of 2018 had seek in-principal approval of additional capital cost for Ash dyke raising of lagoon-2 (1st raising) undertaken by the RSPCL owing to uncontrollable factor faced in term of Regulation 21 read with Regulations 22 of UPERC (Terms and Conditions) Tariff Regulations, 2014. In this regard, the Commission vide its Order, dated April 06, 2021 has stated as follows:

"***Issue of Ash dyke***

17. The existing ash dyke of RSPCL with Lagoon-1, 2A and 2B has total capacity total capacity of approx. 48 lakh Cum. The usable capacity of existing ash dyke is 33.6 MT. The bund raising of lagoon-1 after its exhaustion was completed in March 2016, creating an additional capacity of 17 lakh Cum. and has been capitalised under additional capital expenditure work of Rs. 550 Crores approved by the Commission. However, as against lagoon-1 was exhausted, bund raising of lagoon-2 (1st raising) and lagoon-1 (2nd raising) was undertaken. The work on lagoon-2 (1st raising) has been completed in March 2018 with expenditure of Rs. 22.5 Crores. The raising of bund for lagoon 1(2nd Raising) is underway and shall be completed by October 2019 with estimated cost of Rs. 20 Crores. During the hearing on 05.11.2019, petitioner has submitted that it has filed True-up petition no. 1529/2019 based on the actual expenditure incurred and the Commission may consider the same.

18. RPSCL has already filed True-up Petition No. 1529/2019 considering actual expenditure on Ash dyke which shall be considered after prudence check by the Commission."

3.3.14 Further, it is observed that the Petitioner in its true-up has claimed the additional capitalisation of Rs. 22.49 Crore against the first raising of Lagoon 2 of Ash dyke under Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014. Accordingly, the Commission asked Petitioner to

provide justification to substantiate it claim under Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014. In response, the Petitioner submitted the Report on Specification for Ash Handling System for Stage-1, specifying design basis for various component of the ash handling system which considers the height of ash dyke to be raised gradually up to 30M during operational Stage of the project. Further, the Petitioner also submitted Statutory Auditor Certificate certifying that, the Capital Expenditure of Rs. 22.49 Crore has been incurred toward "Ash dyke bund raising of Lagoon -2 (1st raising) which was capitalised on December 31, 2018.

3.3.15 **Based on above, in order to have a smooth and continuous handling of ash disposal in the generating station as per Regulation 22 (2) (iv) and (vi) of the UPERC Generation Tariff Regulations, 2014, the Commission is inclined to allow the expenditure of Rs. 22.49 Crore of incurred during FY 2018-19 towards 1st raising Lagoon 2 of Ash dyke. Further, on Commission query, the Petitioner vide reply dated 27.1.2022, submitted that it has done the expenditure from 100% equity and submitted the Auditor certificate dated 22.1.2022 providing that the completed cash-basis expenditure has been done in FY 2018-19. The Petitioner is directed to ensure that suitable measures shall be taken to achieve its responsibility of 100% ash utilization.**

C. Claim on account of undischarged liability, discharged during the period FY 2014-15 to FY 2018-19

3.3.16 The Petitioner submitted that the Commission in its Order dated 22.08.2017 held that that the Capital Cost has been allowed till FY 2013-14 after deducting undischarged liability as on COD of the Rosa TPP and year wise discharge of liability till FY 2013-14. However, discharge of liability for the period FY 2014-15 to FY 2018-19 shall be considered while truing up of tariff for FY 2014-15 to FY 2018-19. The Petitioner submitted the excerpt of the above said Order as shown below:

*"**3.2.19** .....Capital cost has been approved after deduction of net Undischarged Liability and considering discharge. The Capital cost till FY 2013-14 has been allowed after deducting undischarged liability as on COD and year wise discharge of liability till FY 2013-14 as under:*

Stage-I	2010-11	2011-12	2012-13	2013-14
Opening Liability	452.98	390.56	46.86	15.21
Addition	0.00	0.00	0.00	0.00
Discharge	62.41	343.70	31.65	15.21
Closing Liability	390.56	46.86	15.21	0.00

Stage-II	2012-13	2013-14
Opening Liability	286.86	175.40
Addition	0.00	46.05
Discharge	111.45	0.00
Closing Liability	175.40	221.45
Capital Advances	41.02	26.68
Net Capital Liabilities	134.39	194.78

However, discharge of liability for the period FY 2014-15 to FY 2018-19 shall be considered while truing up of tariff for FY 2014-15 to FY 2018-19."

3.3.17The Petitioner further submitted that the said directions were issued purportedly in compliance of Regulation 22 (2) (v) of the UPERC Generation Tariff Regulations, 2014 which are reproduced as follows:

"(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature for new or existing projects actually incurred after the cutoff date may be admitted by the Commission, subject to prudence check:

....

(v) Deferred liabilities relating to works/services within the original scope of work;"

3.3.18The Petitioner submitted that in view of the Order dated 22.08.2017, RPSCL is seeking the revision of tariff on the liabilities discharged towards the Capital Cost of the Rosa TPP during the control period FY 2014-15 to FY 2018-19, as shown in the Table below:

Table 3-9: Details of Discharge of Liabilities towards Capital Cost for Stage-I of Rosa TPP as submitted by the Petitioner (Rs. Crore)

Stage-I	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Opening Liability	452.98	390.56	46.86	15.21
Addition	-	-	-	-
Discharge	62.41	343.70	31.65	15.21
Closing Liability	390.56	46.86	15.21	-

Table 3-10: Details of Discharge of Liabilities towards capital cost for stage-II of Rosa TPP as submitted by the Petitioner (Rs. Crore)

Stage-II	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening Liability	286.86	175.40	221.45	139.08
Addition	-	46.05	-	-
Discharge	111.45	-	82.37	139.08
Closing Liability	175.40	221.45	139.08	-
Capital Advances	41.02	26.68	9.27	-
Net Capital Liabilities	134.39	194.78	129.82	-

3.3.19The Petitioner submitted that discharge of liabilities of the Capital cost of the Rosa TPP have also been independently verified by a qualified Auditor. The Petitioner submitted that the present claim of the Petitioner is without prejudice to the claim of the Petitioner pending before the Hon'ble Tribunal in Appeal No 357 of 2017.

Commission's Analysis:

3.3.20The Commission sought the details of undischarged liabilities during the control period. In this regard, the Petitioner submitted the vendor wise discharged liability, certified by the statutory auditor dated 17/09/21. Summary of liability discharged statement as submitted by the Petitioner is shown in Table below:

Table 3-11: Summary of Certified discharged liability statement as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19)

Particular	Asset/ work	Year of Actual Capitalisation	Original liability Discharged (Rs. Crore)	Liability as on 31.03.2014 (Rs. Crore)	Discharges (year wise)
Undischarged liabilities related to Stage-II	Stage -II	FY 2011-12 & FY 2012-13	123.25	123.25	FY 2014-15 & FY 2015-16
Undischarged liabilities related to Additional Capital Expenditure Capitalised	Additional Capital Assets	FY 2013-14	1.60	1.60	FY 2014-15 & FY 2015-16
Undischarged liabilities related to Additional Capitalisation Expenditure -CWIP	Additional Capital Assets-CWIP	FY 2014-15	70.16	70.16	FY 2014-15, FY 2015-16 & FY 2018-19
Total			**195.01**	**195.01**	

3.3.21The Commission has observed that the Petitioner has claimed undischarged liabilities of Rs. 195.01 Crore against the approved liability of Rs. 194.78 Crore of Stage -II at the end of FY 2013-14. Further, the Commission has gone through the submission of the Petitioner and the Auditor Certificate dated 17/09/2021 submitted in reply of 4th Data Gap, wherein the Petitioner has submitted the details of cash basis discharge of Liability as payments made in each year (FY 15 to FY 19). On basis of above, Commission has worked out the claim as under:

Stage-II	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Advances	26.70				
Discharge	17.40	202.90	-	0.56	0.85

3.3.22Based on the above, the Commission has arrived at the year-wise discharge

of liability of Rs. 194.78 Crore as under:

Stage-II	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Liability	194.78	177.49	1.41	1.41	0.85
Addition	-	-	-	-	-
Discharge*	17.29	176.07	-	0.56	0.85
Closing Liability	177.48	1.41	1.41	0.85	0.00

**since 194.78 Crs was approved by Commission after adjusting the advance of Rs. 26.68 Crs, the same has been adjusted accordingly.*

3.3.23 **Accordingly, the discharge of liabilities of Rs. 194.78 Crore of Stage -II as per Table above and that of additional expenditures from FY 2014-15 to FY 2018-19 as per Table 3-6 is summarized below as liability flow statement:**

Table 3-12: Details of Total Discharge of Liabilities towards capital cost for FY 2014-15 to FY 2018-19 (Rs. Crore)

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening UDL	194.78	279.86	56.37	25.51	19.88
Addition to UDL (due to add cap 14-15 to 18-19)	102.38	45.23	8.71	0.00	0.00
Total UDL	297.16	325.10	65.09	25.52	19.88
Discharge of UDL (Stage II as on 31.3.2014)	17.29	176.07	0.00	0.56	0.85
Discharge of UDL (add cap14-15 to 18-19)	0.00	92.65	39.57	5.07	19.03
Total Discharge of UDL	**17.29**	**268.72**	**39.57**	**5.63**	**19.88**
Closing UDL	279.86	56.37	25.51	19.88	0.00

The undischarged liabilities w.r.t Stage II and additional capital expenditure during the control period have been discharged completely as on 31.3.2019.

GFA for FY 2014-15 to FY 2018-19

3.3.24The Petitioner submitted the details of the GFA for the Control Period as shown in the Table below:

Table 3-13: Details of GFA as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
STAGE I+ STAGE II					
Opening GFA	6076.97	6332.01	6512.84	6523.92	6523.92
Add. of add-cap	172.68	41.74	11.08		22.49
Add. due to discharge of Liability	82.37	139.08	0.00	0.00	0.00

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Closing GFA	6332.01	6512.84	6523.92	6523.92	6546.41

3.3.25 The Commission has observed that the Petitioner has claimed addition due to discharge of liability of Rs. 221.45 Crores, which includes capital advances of Rs. 26.68 Crores, whereas the Commission had approved a closing liability of Rs. 194.78 Crores, net of capital advances, as on 31.3.2014 in Order dated 22.08.2017, and the same has been considered in current computation.

3.3.26 **In view of the above discussion and considering the closing GFA of FY 2013-14 as opening GFA for FY 2014-15, the details of capital cost as approved by the Commission for the period FY 2014-15 to FY 2018-19 is as follows:**

Table 3-14: Details of Capital Cost approved by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Capital Cost	6076.97	6142.04	6426.79	6471.73	6477.36
Add-cap during the year (cash basis)	47.78	16.03	5.37	0.00	22.49
Discharge of undischarged liability	17.29	268.72	39.57	5.63	19.88
Net addition	65.07	284.75	44.94	5.63	42.37
Closing Capital Cost	6142.04	6426.79	6471.73	6477.36	6519.73

Depreciation

3.3.27 The Petitioner submitted the details of depreciation for the Control Period (FY 2014-15 to FY 2018-19) as shown in the Table below:

Table 3-15: Details of Depreciation as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Capital Cost	6076.97	6332.01	6512.84	6523.92	6523.92
Closing Capital Cost	6332.01	6512.84	6523.92	6523.92	6546.41
Average Capital Cost	6204.49	6422.43	6518.38	6523.92	6535.16
Rate of depreciation	5.72%	5.72%	5.72%	5.72%	5.72%
Depreciable value	354.60	367.05	372.54	372.85	373.49
Balance useful life at the beginning of the period	20.00	19.00	18.00	17.00	16.00
Remaining depreciable value	5849.89	6055.37	6145.84	6151.06	6161.67
Depreciation (for the period)	354.60	709.19	1076.24	1448.78	1821.63
Depreciation (annualized)	354.60	367.05	372.54	372.85	373.49

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Cumulative depreciation at the end of the period	709.19	1076.24	1448.78	1821.63	2195.13
Less: Cumulative depreciation adjustment on account of de-capitalisation					
Net Cumulative depreciation at the end of the period	709.19	1076.24	1448.78	1821.63	2195.13

Commission's Analysis:

3.3.28The Commission in UPERC Generation Tariff Regulations, 2014 has specified the rates to be utilised for the purposes of computing depreciation for different class of assets. The relevant provisions of the UPERC Generation Tariff Regulations, 2014 is shown below:

*"**(ii) Depreciation :***
For the purpose of tariff, depreciation shall be computed in the following manner, namely:
(a) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof. In case of the tariff of all the units of a generating station for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station taking into consideration the depreciation of individual units or elements thereof.
Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station for which single tariff needs to be determined.

(b) In case of multiple units of a generating station weighted average life for the generating station shall be applied. Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

(c) The value base for the purpose of depreciation shall be the historical cost of the asset.
Provided that the historical capital cost of the asset shall include additional capitalization on account of Foreign Exchange Rate Variation up to 31.3.2014 already allowed by the Government /Commission.

(d) The residual life of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land other than the land held under lease shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of asset.

(e) In case of new projects, depreciation shall be calculated annually, based on straight line method over the useful life of the asset and at the

rates prescribed in Appendix III to these regulations.
Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

Provided also that any depreciation disallowed on account of lower availability of the generating station shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(f) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation including Advance Against Depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets. The rate of depreciation shall be continued to be charged at the rate specified in Appendix III till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

Provided also that any depreciation disallowed on account of lower availability of the generating station shall not be allowed to be recovered at a later stage during the useful life and the extended life.

(g) The generating company shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(h) In case of de-capitalization of assets in respect of generating station or unit thereof the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

3.3.29 The Commission observed that the computation adopted by the Petitioner (as shown in Form 11 of Tariff Formats) for arriving at the weighted average rate of depreciation for each year of the period FY 2014-15 to FY 2018-19 is not in line with the Regulation and had the *infirmities which were subsequently brought out to in the data gaps by the Commission and rectified by the Petitioner:*

(i) Addition of the additional capitalization incurred during the year to the opening GFA
(ii) Erroneous calculation of weighted average rate of depreciation
(iii) The bifurcation of freehold and leasehold land as submitted in the Petition is in variation with the Audited Accounts of the Petitioner.

3.3.30 The Commission has rectified the above infirmities and observed that out of total approved capital expenditure of Rs. 225.50 Crore, Rs. 145 Crore of approved capital expenditure were related to CHP argumentation work and remaining Rs. 80.50 Crore were related non- CHP argumentation work. Further, it observed that almost 86% of the CHP assets were created towards Plant & Machinery equipment's and 14% towards building and materials. Further, almost 42% of the non-CHP assets were created towards Plant & Machinery equipment's and 58% towards building and materials. Accordingly, the Commission has bifurcated the total addition i.e add-cap and discharge of liabilities during the year, into plant and machinery and civil works as shown in Table below, for computation of weighted average rate of depreciation for each year.

Particular	Opening	FY 2014-15	2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore	Rs. Crore
Land	32.53					
Plant & Machinery	57433.99	45.85	200.62	31.67	3.96	14.01
Building & Civil works (roads etc)	88.28	19.22	84.12	13.28	1.66	28.36
Others (furniture, equipment's)	35.49					
Total Asset capitalised	**6076.96**	**65.07**	**284.75**	**44.94**	**5.63**	**42.37**

3.3.31The Commission has worked out the depreciation for the Control period FY 2014-15 to FY 2018-19 as shown in Table below:

Table 3-16: Depreciation as approved by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening GFA	6076.97	6142.04	6426.79	6471.73	6477.36
GFA addition	65.07	284.75	44.94	5.63	42.37
Closing GFA	6142.04	6426.79	6471.73	6477.36	6519.73
Average GFA	6109.51	6284.41	6449.26	6474.55	6498.55
Rate of Depreciation	5.70%	5.69%	5.67%	5.67%	5.66%
Depreciation	**348.41**	**357.32**	**365.72**	**367.01**	**368.03**

Debt: Equity Ratio

3.3.32 It is observed that the Petitioner has considered the debt:equity ratio of 70:30 for each year of control period FY 2014-15 for addition capitalization during the year and the discharge of undischarged liabilities as on 31.03.2014.

Commission's Analysis:

3.3.33**The Commission has considered the closing equity balance of Rs. 1545.23 Crore for (Stage I+ Stage II combined) as the opening balance of equity for FY 2014-15, as approved by the Commission**

in Order dated 22.8.2017 in Petition No. 967/2014, 968/2014 and 1016/2015. Therefore, the debt:equity ratio as on 31.3.2014 is 25.43:74.57.

3.3.34 The Commission further observes that the additional capitalization of Rs. 225.50 Crore incurred during FY 2014-15 to FY 2018-19 forms part of the overall capital cost recommended by the approved by the expert committed and as approved by the Commission.

"Expert Committee report on prudence check of the Capital Cost of both stages of the project was submitted to the Commission on June 8, 2014. An extract of the Expert Committee report is reproduced below for reference,

"(a) Capital Cost

The overall capital cost of RPSCL project is as under:

Particulars	Amount (Rs. In Crores)	Reference
Stage 1 (as at 31.03.12)	3112.81	Form5B submitted with UPERC
Stage 2 (as at 31.03.13)	3093.02	
Additional Capital Cost	517.28	As recommended by the Committee
Overall Capital Cost	**6723.11**	

The overall capital cost of Rs.6723.11 crores, as given above, is within reasonable limits when compared to CERC benchmark norms and per MW cost of other contemporarily completed thermal power projects and, therefore, the same is found prudent.

(b) Additional Capital Cost

The committee has also assessed the essentiality of each of the UPERC approved additional capital cost items amounting to Rs.550.02 Crores. The Committee has recommended the requirement of all additional capital cost items except the additional capital cost amounting to Rs. 32.74 Crores..." [Emphasis Added]."

3.3.35 **Accordingly, the Commission has considered the debt: equity ratio of 25.43:74.57 for discharge of undischarged liability of 194.78 Crore as on 31.03.2014 and approved additional capitalization of Rs. 225.50 Crore during the period FY 2014-15 to FY 2018-19. The additional capitalization of Rs. 22.49 Crores against the raising of Ash Dyke, has been considered at debt:equity ratio of 70:30.**

Return on Equity

3.3.36 The Petitioner submitted the details of Return on Equity for the Control Period (FY 2014-15 to FY 2018-19) as shown in the Table below:

Table 3-17: Details of Return on Equity as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Equity	1545.23	1621.75	1675.99	1679.32	1679.32
Add: Increase due to addition during the year / period	51.80	12.52	3.32	0.00	6.75
Add: Increase due to discharges during the year / period	24.71	41.72			
Closing Equity	1621.75	1675.99	1679.32	1679.32	1686.07
Average Equity	1583.49	1648.87	1677.66	1679.32	1682.69
Rate of ROE	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	253.36	263.82	268.43	268.69	269.23

Commission's Analysis:

3.3.37 **Further, the Petitioner is entitled to earn Return on Equity (RoE) as per Regulation 25 of the UPERC Generation Tariff Regulations, 2014. In this regard, the Regulation 25 (iii) of the UPERC Generation Tariff Regulations, 2014 provides that:**

"(iii) Return on Equity:
Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 24@ 15.5% per annum;
Provided that in case of projects commissioned on or after 1st April, 2014, if such projects are completed within the timeline specified in Appendix IV an additional return of 0.5%, shall be allowed;

Provided further that additional return shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever;

Provided that the rate of return of a new project shall be reduced by up to 1% for such period as maybe decided by the Commission, if the generating station is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system;

Provided also that as and when any of the above requirements are found lacking in an existing generating station based on the report submitted by the SLDC, RoE may be reduced by up to 1% for such period as may be decided by the Commission;

***Explanation:** The premium raised by the generating company while issuing share capital and investment of internal resources created out of free reserve of the generating company, if any, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal*

resources are actually utilized for meeting the capital expenditure of the generating station and forms part of the approved financial package."

3.3.38**The rate of return on equity has been considered as 16% (15.50% + 0.50%) as approved by the Commission in Order dated 22.8.2017 in Petition No. 967/2014, 968/2014 and 1016/2015.**

3.3.39The Commission has worked out the Return on Equity for the Control period FY 2014-15 to FY 2018-19 as shown in Table below:

Table 3-18: Return on Equity as approved by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening balance	1545.23	1561.78	1634.19	1645.62	1647.05
Total Addition during the year (including discharge of liability)	16.55	72.41	11.43	1.43	11.80
Closing Balance	1561.78	1634.19	1645.62	1647.05	1658.85
Average Equity	1553.50	1597.98	1639.90	1664.33	1652.95
Rate of Return	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	**248.56**	**255.68**	**262.38**	**263.41**	**264.47**

Interest on Loan

3.3.40The Petitioner submitted the details of computation of Interest on Loan as shown in the Table below:

Table 3-19: Details of Interest on Loan as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Net Normative loan – Opening	3597.32	3421.26	3180.78	2816.00	2443.15
Add: Increase due to addition during the year / period	120.88	29.22	7.76	0.00	15.74
Add: Increase due to discharges during the year / period	57.66	97.36			
Less: Normative repayment	354.60	367.05	372.54	372.85	373.49
Net Normative loan – Closing	3421.26	3180.78	2816.00	2443.15	2085.40
Average Normative loan	3509.29	3301.02	2998.39	2629.58	2264.27
Weighted average rate of interest as approved by UPERC vide Order dated 22.08.2017	9.83%	9.57%	9.27%	9.35%	9.52%
Interest on Loan	**344.96**	**315.91**	**277.95**	**245.87**	**215.56**

Commission's Analysis:

3.3.41The provisions for treatment of Interest on Loans as per UPERC Generation Tariff Regulations, 2014 are as follows:

"(i) Interest on loan capital

(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in Regulation 24.

(b) The loan outstanding as on 1st April 2014 shall be worked out as the gross loan as per Regulation 24minus cumulative repayment as admitted by the Commission up to 31st March 2013. The repayment for any year during the Tariff Period shall be deemed to be equal to the depreciation allowed for that Year.

In case of decapitalisation of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of decapitalisation of such asset.

(c) The rate of the interest shall be the weighted average rate of interest calculated on the basis of actual loans at the beginning of each year and shall be adjusted based on actual loan each year accordingly.

(d) If there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average of interest shall be considered.

(e) The generating company shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company in the ratio of 2:1. The above facts shall be certified by statutory auditor.

(f) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(g) In case of any dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment as ordered by the Commission to the generating company during pendency of any dispute relating to re-financing of loan.

(h) In case any moratorium period is availed of by the generating company, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(i) The generating company shall not make any profit on account of re-financing of loan and interest on loan.

(j) In case, the generating company has contracted floating/variable rate of interest on loan resetting at certain interval of time the impact of change in rate of interest shall be assessed by the generating company on account of such resetting duly certified by statutory auditor and the capacity charge of the relevant year shall be adjusted for such impact

and billed accordingly to beneficiary without approaching the Commission for change in tariff on this account.

Provided if the generating company does not have actual loan or have re-financed the loan resulting in no specific loan attributable to the generating station then the weighted average rate of interest of the generating company as a whole shall be considered.

Provided also in case of dispute, any party to such dispute may approach the Commission with proper application and it shall be ensured that the payment to the generating company is not withheld during pendency of the dispute."

3.3.42The debt:equity ratio has been considered as discussed in previous section. Further, the Commission observed that the Petitioner has considered the same interest rate on loan as approved in the MYT Order dated August 22, 2017. However, the Regulation clearly provide that the rate of the interest shall be the weighted average rate of interest calculated on the basis of actual loans at the beginning of each year and shall be adjusted based on actual loan each year.

3.3.43In view of above, the Commission has asked the Petitioner to submit the actual loan portfolio from FY 2014-15 to FY 2018-19, certified by the Statutory Auditor. In this regards the Petitioner has submitted the certificate dated 16.09.2021 specifying actual loan portfolio for aforesaid period, along with the weighted average interest rate calculation.

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Interest rate as per Auditor Certificate	9.56%	8.91%	9.02%	8.96%	10.39%

3.3.44The Commission further, observed that the weighted average interest rate submitted by the Petitioner in auditor certificate is erroneously computed. Accordingly, the Commission has computed the weighted average interest rate considering the actual loan portfolio as submitted by the Petitioner, to working out the Interest on Loan for the Control period from FY 2014-15 to FY 2018-19 as shown in Table below:

Table 3-20: Interest on Loan as approved by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening balance	3597.32	3297.43	3152.44	2820.24	2457.42
Net addition during	48.52	212.34	33.51	4.20	30.57

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
the year					
Repayment during the year	348.41	357.32	365.72	367.01	368.03
Closing balance	3297.43	3152.44	2820.24	2457.42	2119.96
Average Loan	3447.38	3224.94	2986.34	2638.83	2288.69
Interest rate	9.47%	8.85%	8.97%	8.91%	10.37%
Interest on Loan	**326.56**	**285.28**	**267.92**	**235.11**	**237.28**

O&M Expenses

3.3.45 The Petitioner submitted the details of the O&M Expenses for the Control Period (FY 2014-15 to FY 2018-19) as shown in the Table below:

Table 3-21: Details of O&M Expenses as submitted by the Petitioner for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Financial Year	O&M Expenses	
	Approved in MYT Order dated 22.08.2017	Claimed in True up Petition
2014-15	239.40	239.40
2015-16	254.52	254.52
2016-17	270.48	270.48
2017-18	287.52	287.52
2018-19	305.64	305.64

Commission's Analysis:

3.3.46 The relevant provisions with regard to approval of O&M Expenses as per UPERC Generation Tariff Regulations, 2014 are as follows:

"***25 (iv) Operation and Maintenance expenses:***

(a) Coal-based generating stations except for those at (b) below:

Year	*Up to 200/210/250 MW sets*	*300/330/ 350 MW sets*	*500 MW sets*	*600 MW and above sets*
2014-15	*23.90*	*19.95*	*16.00*	*14.40*
2015-16	*25.40*	*21.21*	*17.01*	*15.31*
2016-17	*27.00*	*22.54*	*18.08*	*16.27*
2017-18	*28.70*	*23.96*	*19.22*	*17.30*
2018-19	*30.51*	*25.47*	*20.43*	*18.38*

..."

3.3.47In view of the above, the Commission approves the Normative O&M expenses for the control period FY 2014-15 to FY 2018-19 as provided in the Table below:

Table 3-22: O&M Expenses approved by the Commission for the period

FY 2014-15 to FY 2018-19 after True up (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
STAGE I					
Unit 1	300	300	300	300	300
Unit 2	300	300	300	300	300
Normative O&M expenses (Rs Lakh/MW)	19.95	21.21	22.54	23.96	25.47
Normative O&M expenses (Rs. Crore)	119.70	127.26	135.24	143.76	152.82
STAGE II					
Unit 3	300	300	300	300	300
Unit 4	300	300	300	300	300
Normative O&M expenses (Rs Lakh/MW)	19.95	21.21	22.54	23.96	25.47
Normative O&M expenses (Rs Crore)	119.70	127.26	135.24	143.76	152.82
Total Normative O&M expenses (Rs Crore)	**239.40**	**254.52**	**270.48**	**287.52**	**305.64**

Interest on Working Capital

3.3.48The Petitioner has submitted the details of Interest on Working Capital for the Control period (FY 2014-15 to FY 2018-19) as shown in the Table below:

Table 3-23: Details of Interest on Working Capital as submitted by the Petitioner for the Control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal for 2 Months	493.38	493.38	493.38	493.38	493.38
Cost of Secondary Fuel Oil For 2 Months	7.48	4.37	4.37	4.37	4.37
O & M expenses	19.95	21.21	22.54	23.96	25.47
Maintenance Spares	47.88	50.90	54.10	57.50	61.13
Receivables	735.79	735.57	732.23	729.87	728.12
Total Working Capital	1304.48	1305.43	1306.62	1309.08	1312.47
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	176.10	176.23	176.39	176.73	177.18

Commission's Analysis:

3.3.49The Petitioner in its data-gap submission dated 29/10/2020 has submitted that it has *claimed the Interest on working capital as same as approved in the Review Petition Order dated April 25, 2018 except receivables equivalent to two months which is claimed based on actual audited accounts values.*

3.3.50 The Regulation 6 of the UPERC Generation Tariff Regulation, 2014 provides that:

"6. Truing up of Capital Expenditure and Tariff:

(3) The generating company shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred duly audited and certified by the auditors.

Provided the Commission may appoint a separate independent auditor who, under the supervision of the Commission, shall undertake technical and financial audit of the generating station at any time.

(4) The Commission shall also carry out truing up of tariff of generating stations based on the performance of following controllable parameters:
(a) Gross Station Heat Rate;
(b) Secondary Fuel Oil Consumption;
(c) Auxiliary Energy Consumption; and
(d) Re-financing of Loan.

(5) The Commission shall carry out truing up of tariff of generating stations based on the performance of following uncontrollable parameters:
(a) Force Majeure;
(b) Change in Law; and
(c) Primary Fuel Cost"

3.3.51 In view of the above Regulations, the Commission sought information regarding the cost of fuel from the Petitioner for each year of the control period FY 2014-15 to FY 2018-19 as part of Truing up of uncontrollable parameters.

3.3.52 However, the Petitioner did not provide the details of Primary fuel, but only Secondary fuel wide submission dated 17.07.2021. With regard to the information on secondary fuel oil, the Petitioner submitted the details as follows:

Table 3-24: Details of Secondary Fuel Oil consumption as submitted by the Petitioner for the Control period (FY 2014-15 to FY 2018-19)

Month	Particular	Unit	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
April	Consumption	KL	62	96	0.005	98	126
	Price	Rs./KL	69,553	44,927	32,889	48,868	48,037
	Oil Cost	Rs. Crore	0.43	0.43	0.00	0.48	0.61
May	Consumption	KL	90	3	64	51	212
	Price	Rs./KL	69,553	47,797	32,889	48,868	52,049
	Oil Cost	Rs. Crore	0.63	0.01	0.21	0.25	1.10
June	Consumption	KL	38	59	192	17	105
	Price	Rs./KL	69,553	46,939	40,842	43,056	53,027
	Oil Cost	Rs. Crore	0.26	0.28	0.78	0.07	0.56
July	Consumption	KL	106	323	146	86	40
	Price	Rs./KL	66,614	44,894	41,321	36,603	53,027
	Oil Cost	Rs. Crore	0.71	1.45	0.60	0.31	0.21
August	Consumption	KL	24	198	122	41	195
	Price	Rs./KL	65,724	40,084	38,953	37,622	54,184
	Oil Cost	Rs. Crore	0.16	0.79	0.48	0.15	1.06
September	Consumption	KL	91	75	18	92	38

Month	Particular	Unit	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
	Price	Rs./KL	64,353	39,126	39,823	41,540	55,637
	Oil Cost	Rs. Crore	0.59	0.29	0.07	0.38	0.21
October	Consumption	KL	132	82	67	8	59
	Price	Rs./KL	60,512	40,124	39,823	41,331	55,732
	Oil Cost	Rs. Crore	0.80	0.33	0.27	0.03	0.33
November	Consumption	KL	136	255	97	5	4
	Price	Rs./KL	55,595	41,151	42,671	41,189	55,732
	Oil Cost	Rs. Crore	0.76	1.05	0.41	0.02	0.02
December	Consumption	KL	117	174	122	102	45
	Price	Rs./KL	48,956	38,917	42,131	41,189	55,732
	Oil Cost	Rs. Crore	0.57	0.68	0.51	0.42	0.25
January	Consumption	KL	46	84	11	135	79
	Price	Rs./KL	49,010	32,560	44,119	47,034	45,676
	Oil Cost	Rs. Crore	0.23	0.27	0.05	0.63	0.36
February	Consumption	KL	179	79	195	104	96
	Price	Rs./KL	43,442	29,245	46,701	48,037	48,684
	Oil Cost	Rs. Crore	0.78	0.23	0.91	0.50	0.47
March	Consumption	KL	298	278	119	68	171
	Price	Rs./KL	45,064	32,889	48,868	48,037	52,117
	Oil Cost	Rs. Crore	1.34	0.91	0.58	0.33	0.89
Total Oil Cost		**Rs. Crore**	**7.24**	**6.73**	**4.88**	**3.59**	**6.07**

3.3.53 The Commission has considered the secondary fuel cost based on the above data provided by the Petitioner. Further, with regard to cost of coal, the Commission has considered the difference between the cost of fuel as recorded in respective year's audited accounts and the cost of secondary fuel as provided above for that respective year. The Cost of Primary fuel as computed by the Commission is shown in Table below:

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Fuel as per Audited Accounts	2800.00	2074.95	2041.42	1833.56	1029.00
Cost of Secondary Fuel Oil	7.24	6.73	4.88	3.59	6.07
Cost of Coal	2792.76	2,068.22	2036.54	1829.97	1022.93

3.3.54 **The receivables have been considered on the basis of trued up fixed charges and fuel cost as per audited accounts as considered by the Petitioner.** The Interest on working capital as approved considering the above is shown in Table below:

Table 3-25: Interest on working Capital as approved by the Commission for the Control Period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Cost of Coal for 60 days	459.08	339.05	334.77	300.82	168.15
Cost of Oil for 2 months	1.21	1.12	0.81	0.60	1.01

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
O&M expenses for 1 month	19.95	21.21	22.54	23.96	25.47
Maintenance spares as 20% of O&M expense	47.88	50.90	54.10	57.50	61.13
Receivables for 2 months	687.85	559.83	556.45	518.04	381.75
Total Working Capital	**1215.97**	**972.12**	**968.67**	**900.92**	**637.51**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**164.16**	**131.24**	**130.77**	**121.62**	**86.06**

SUMMARY OF TRUING UP OF FIXED CHARGES FOR THE CONTROL PERIOD FY 2014-15 TO FY 2018-19:

3.3.55Based on discussion in above sections, the fixed charges as claimed by the Petitioner and approved by the Commission in present True-up order is shown in the Table below:

Table 3-26: Annual Fixed Charges claimed by Petitioner for True-up of the Control period (FY 2014-15 to FY 2015-16) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
STAGE I+ STAGE II					
Return on Equity	253.36	263.82	268.43	268.69	269.23
Depreciation	354.60	367.05	372.54	372.85	373.49
Interest on Loan	344.96	315.91	277.95	245.87	215.56
Interest on working capital	176.10	176.23	176.39	176.73	177.18
O&M expenses	239.40	254.52	270.48	287.52	305.64
Total	**1,368.42**	**1,377.53**	**1,365.79**	**1,351.65**	**1,341.11**

Table 3-27: Trued Up Annual Fixed Charges approved by the Commission for the Control period (FY 2014-15 to FY 2018-19) (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
STAGE I+ STAGE II						
Return on Equity	248.56	255.68	262.38	263.41	264.47	
Depreciation	348.41	357.32	365.72	367.01	368.03	
Interest on Loan	326.56	285.28	267.92	235.11	237.28	
Interest on working capital	164.16	131.24	130.77	121.62	86.06	
O&M expenses	239.40	254.52	270.48	287.52	305.64	
Total AFC approved	**1327.09**	**1284.04**	**1297.27**	**1274.68**	**1261.50**	
Total AFC approved in MYT	**1346.09**	**1318.38**	**1292.76**	**1279.87**	**1269.43**	
Difference	**(19.00)**	**(34.34)**	**4.51**	**(5.19)**	**(7.93)**	**(61.95)**

3.4 SHARING OF GAINS AND LOSSES AND CARRYING COST ON TRUE UP FOR THE PERIOD FY 2014-15 TO FY 2018-19

3.4.1 The Petitioner submitted the sharing of the efficiency gains on account of the controllable parameters for the Control Period FY 2014-15 to 2018-19 as follows:

Table 3-28: Details of Sharing of Gains/Loss as submitted by the Petitioner for the period FY 2014-15 to FY 2018-19 (Rs. Crore)

Sr. No.	Financial Year	Variable Charges claimed from UPPCL	Fuel Cost as per Audited Accounts	Difference	Gain Sharing @20% with UPPCL
1	FY 2014-15	2,988.16	2,800.00	188.16	37.63
2	FY 2015-16	2,187.39	2,074.95	112.44	22.49
3	FY 2016-17	2,216.52	2,041.42	175.10	35.02
4	FY 2017-18	2,047.31	1,833.56	213.75	42.75
5	FY 2018-19	1,188.82	1,029.00	159.82	31.96
6	Total	**10,628.20**	**9,778.93**	**849.27**	**169.85**

3.4.2 The Petitioner further submitted that the amount of Efficiency Gains to be shared by RPSCL with the UPPCL on account of the controllable parameters for the Control Period FY 2014-15 to 2018-19 has also been independently verified by a qualified auditor.

Commission's Analysis:

3.4.3 With regard to the approval of sharing of gains/loss on account of the true up of controllable parameters, the UPPCL in its sur-rejoinder dated 20.11.2021 has submitted that 'variable charges claimed from UPPCL' as submitted by RPSCL is erroneous and don't reflect the correct variable charges claimed by RPSCL from UPPCL for the control period from FY 2014-15 to FY 2018-19. Accordingly, the Commission vide its letter ref no. UPERC/Secy/D(G)/2020-21-1211, dated December 09, 2021 has directed UPPCL to provide the affidavit, detailing month wise energy charges billed by the Petitioner during FY 2014-15 to FY 2018-19. In compliance to the Commission's direction vide letter dated December 09, 2021, **UPPCL vide its letter dated December 29, 2021, submitted additional affidavit providing the month wise reconciled energy charges including invoice details.**

3.4.4 Accordingly, **the Commission has considered the reconciled energy charges same as submitted by the UPPCL in its letter dated December 29, 2021.** A summary of the sharing of gain/losses on account of variable charges as approved by the Commission is as follows:

Table 3-29: Details of Sharing of Gains/Loss as approved by the

Commission for the period FY 2014-15 to FY 2018-19 (Rs. Crore)

Sr. No.	Financial Year	Variable Charges claimed from UPPCL	Fuel Cost as per Audited Accounts	Difference	Gain Sharing @20% with UPPCL
1	FY 2014-15	2988.16	2,800.00	188.16	37.63
2	FY 2015-16	2187.39	2,074.95	112.44	22.49
3	FY 2016-17	2215.97	2,041.42	174.55	34.91
4	FY 2017-18	2074.43	1,833.56	240.87	48.17
5	FY 2018-19	1203.94	1,029.00	174.94	34.99
	Total	**10,669.89**	**9,778.93**	**890.96**	**178.19**

3.5 CARRYING COST

3.5.1 The Petitioner submitted that the carrying cost on the Trued-Up amount for FY 2014-15 to FY 2018-19 as per the prevalent Bank rates in terms of Regulation 6 (9) of the UPERC Generation Tariff Regulations, 2014.

3.5.2 The Commission observed that the Petitioner in its calculation has not shown the rate at which the carrying cost has been calculated. However, the Petitioner has shown the same in the tariff formats submitted along with the Petition. The calculation as submitted by the Petitioner including the interest rates is shown in the following Table:

Table 3-30: Details of Carrying Cost as submitted by the Petitioner for the Control Period FY 2014-15 to FY 2018-19 (Rs. Crore)

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Opening Balance of Principal	-	(15.31)	21.45	59.47	88.51	
Addition on account of Fixed Charges true up	22.32	59.25	73.03	71.79	71.67	
Gain Sharing	(37.63)	(22.49)	(35.02)	(42.75)	(31.96)	
Closing Balance of Principal	(15.31)	21.45	59.47	88.51	128.22	
Average Balance	(7.65)	3.07	40.46	73.99	108.37	
Rate of carrying cost	13.50%	13.01%	12.79%	12.35%	12.55%	
Carrying Cost for the year/ period	**(1.03)**	**0.40**	**5.17**	**9.14**	**13.60**	**27.28**

Commission's Analysis

3.5.3 The Commission observed that the rate of carrying cost considered by the Petitioner is in variation with the Bank Rate calculated as per UPERC Generation Tariff Regulations, the Commission has worked out bank rate as per Regulation 16 (7) of UPERC Generation Tariff Regulation, 2014 as shown in Table below:

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Bank Rate (SBI Base Rate +350 Basis Point) for respective FY	13.50%	13.50%	12.80%	12.60%	12.20%

3.5.4 A summary of the carrying cost as approved by the Commission is shown below:

Table 3-31: Carrying Cost on AFC as approved by the Commission for FY 2014-15 and FY 2018-19) (Rs. Crore)

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Opening Balance of Principal	0.00	(19.00)	(53.34)	(48.83)	(54.02)	
Addition on account of Fixed Charges true up	(19.00)	(34.34)	4.51	(5.19)	(7.94)	
Closing Balance of Principal	(19.00)	(53.34)	(48.83)	(54.02)	(61.95)	
Average Balance	(9.50)	(36.17)	(51.09)	(51.43)	(57.99)	
Rate of carrying cost	13.50%	13.50%	12.80%	12.60%	12.20%	
Carrying Cost for the year	**(1.28)**	**(4.88)**	**(6.54)**	**(6.48)**	**(7.07)**	**(26.26)**

Table 3-32: Carrying Cost on Efficiency gain as approved by the Commission for FY 2014-15 and FY 2018-19) (Rs. Crore)

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Total
Opening Balance of Principal	0.00	(37.63)	(60.12)	(95.03)	(143.20)	
Gain Sharing	(37.63)	(22.49)	(34.91)	(48.17)	(34.99)	
Closing Balance of Principal	(37.63)	(60.12)	(95.03)	(143.20)	(178.19)	
Average Balance	(18.82)	(48.88)	(77.58)	(119.12)	(160.70)	
Rate of carrying cost	13.50%	13.50%	12.80%	12.60%	12.20%	
Carrying Cost for the year	**(2.54)**	**(6.60)**	**(9.93)**	**(15.01)**	**(19.61)**	**(53.68)**

3.5.5 **Total Carrying cost for FY 2014-15 to FY 2018-19 is Rs. 79.74 Crores (26.26+53.68).**

3.5.6 In view of the above, **the Commission directs the Petitioner to refund total amount of Rs. 320.08 Crore to the Respondent which includes the surplus amount of Rs. 240.14 Crore and the carrying cost of Rs. 79.94 Crore.** Petitioner is directed to refund the aforesaid amount in six equal monthly installments starting within three months from the date of this tariff Order in line with Regulation 6(10) of UPERC Generation Tariff Regulations, 2014.

4 SUMMARY OF TRUING UP OF FY 2014-15 TO FY 2018-19

Petitioners Claim:

Particular	FY 2014-15 to FY 2018-19		
	AFC Approved in MYT Order dated August 22, 2017	AFC claimed by Petitioner	Difference for recovery/refund claimed by Petitioner
	A	B	D=(B-A)
Return on Equity	1236.20	1323.52	87.32
Depreciation	1736.55	1840.53	103.98
Interest on Loan	1300.31	1400.25	99.94
Interest on working capital	875.93	882.64	6.71
O&M expenses	1357.56	1357.56	0.00
Total	**6506.53**	**6804.50**	**297.97**

Sr. No.	Financial Year	Efficiency Gain Sharing @20% with UPPCL claimed by Petitioner	Carrying Cost on AFC & Efficiency Gain claimed by Petitioner
1	FY 2014-15	(37.63)	(1.03)
2	FY 2015-16	(22.49)	0.40
3	FY 2016-17	(35.02)	5.17
4	FY 2017-18	(42.75)	9.14
5	FY 2018-19	(31.96)	13.60
	Total	**(169.85)**	**27.28**

4.1.1 **Thus, the Petitioner has claimed of Rs. 155.40 Crores (297.97-169.85+27.28) to be recovered from UPPCL.**

Commission`s Approval:

GFA for FY 2014-15 to FY 2018-19

Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Opening Capital Cost	**6076.97**	**6142.04**	**6426.79**	**6471.73**	**6477.36**
Add-cap during the year (cash basis)	**47.78**	**16.03**	**5.37**	**0.00**	**22.49**
Discharge of undischarged liability	**17.29**	**268.72**	**39.57**	**5.63**	**19.88**
Net addition	**65.07**	**284.75**	**44.94**	**5.63**	**42.37**
Closing Capital Cost	**6142.04**	**6426.79**	**6471.73**	**6477.36**	**6519.73**

4.1.2 All the undischarged liabilities w.r.t. Stage II and additional capital expenditure during the control period have been discharged completely as on 31.3.2019.

AFC for FY 2014-15 to FY 2018-19

Particular	FY 2014-15 to FY 2018-19			Remarks	Carrying Cost on AFC Approved on Truing Up
	AFC Approved in MYT Order dated August 22, 2017	AFC Approved on Truing Up	Difference for recovery/ (refund) Approved on Truing Up		
	A	C	E=(C-A)		
Return on Equity	1236.20	1294.51	58.31	1. The Petitioner has claimed on capitalization basis. 2. Debt : Equity ratio considered as 25.43:74.57 on actuals against 70:30 claimed. 3. For IOL, interest rates computed works out to lower on actuals than claimed.	
Depreciation	1736.55	1806.50	69.95		
Interest on Loan	1300.31	1352.16	51.85		
Interest on working capital	875.93	633.85	(242.08)	Due to consideration of Fuel Cost as per Audited Accounts on actuals.	
O&M expenses	1357.56	1357.56	-	As per Regulations	
Total	**6506.53**	**6444.58**	**(61.95)**		**(26.26)**

Efficiency Gain & Carrying Cost for FY 2014-15 to FY 2018-19

Sr. No.	Financial Year	Total Efficiency Gain as approved by the Commission	Efficiency Gain Sharing @20% with UPPCL Approved on Truing Up	Carrying Cost on Efficiency Gain Approved on Truing Up
1	FY 2014-15	188.16	(37.63)	(2.54)
2	FY 2015-16	112.44	(22.49)	(6.60)
3	FY 2016-17	174.55	(34.91)	(9.93)
4	FY 2017-18	240.87	(48.17)	(15.01)
5	FY 2018-19	174.94	(34.99)	(19.61)
	Total	**890.96**	**(178.19)**	**(53.68)**

4.1.3 **The Commission approves a refund total amount of Rs. 320.08 Crore (61.95+26.26+178.19+53.68) and directs the Petitioner to refund the aforesaid amount in six equal monthly installments starting within three months from the date of this tariff Order in line with Regulation 6(10) of UPERC Generation Tariff Regulations, 2014.**

5 IMPACT ON ACCOUNT OF COMMISSION'S RULING IN ORDER DATED MARCH 8, 2021 IN PETITION NO. 1525 OF 2019

5.1.1 As discussed in Section 2.2 above, the Commission vide its Order dated March 8, 2021 in the matter of UPPCL's claim of seeking recovery of the excess interest on working capital on account of non-funded components of Entry Tax and VAT on coal and secondary fuel for the control period FY 2014-15 to FY 2018-19 ruled that the matter shall be decided in the true up proceedings in Petition No. 1529 of 2019.

5.1.2 In this regard, UPPCL in Petition no. 1525 of 2019 submitted that the Petitioner's claim of interest on working capital on normative basis including the deferred Entry Tax and VAT on coal and secondary fuel cost is analogous to double recovering of interest on the deferred Entry Tax and VAT on coal and secondary fuel cost as the Petitioner is availing the benefit of interest free resource payable to the GoUP after the completion of moratorium period.

5.1.3 The Commission has noted the argument of UPPCL. However, as discussed in this Order, the Commission has considered the fuel cost as per Audited accounts and accordingly calculated the Interest on working capital, which was also claimed by the Petitioner. Further, on analysis of the audited accounts, it is observed that RPSCL has included the deferred amount towards VAT & Entry Tax as expenses in the statement of profit and loss of books of the respective years and the same was also confirmed by RPSCL in the proceedings of Order dated 28.6.2019 in Petition No. 1427 of 2019, vide auditor certificate dated 30.4.2019. It was also submitted vide the Auditor certificate that the amount of Entry Tax on coal and fuel oil was included in the fuel cost and charged in monthly energy bills from UPPCL.

5.1.4 **Accordingly, the Commission is of the considered view that VAT & Entry Tax deferment is a benefit given by the State Government to RPSCL, which has to be repaid (interest free) by RPSCL to the State Government after the moratorium period. The matter of VAT & Entry Tax deferment is between State Government and RPSCL and in line with the view taken by the Commission in Order dated Order dated 28.6.2019 in Petition No. 1427 of 2019. RPSCL has already treated it as an expense in P&L Statement and recovering it from UPPCL in monthly energy bills. RPSCL has created a liability of deferred payment for Entry Tax and VAT to be paid to the State Government and therefore Entry Tax and VAT has to be expensed in the year in which the liability arose.**

5.1.5 **Further, since the Commission has approved the actual fuel cost as per audited accounts while computing the interest on working capital for FY 2014-15 to FY 2018-19 and is aware that the deferred Entry Tax and VAT has also been allowed as part of the fuel cost, to make sure it does not lead to double recovery of interest cost on Entry Tax and VAT as part of fuel cost, the Commission directs the Petitioner and RPSCL that when it starts repayment of deferred Entry Tax and VAT to the State Government, it shall not book the deferred payment as part of the fuel cost of the respective years in the audited accounts and shall not bill the UPPCL for the same in energy bills, as it has already been allowed and recovered in truing up of FY 2014-15 to FY 2018-19.**

6 COMMISSION'S DIRECTION TO PETITIONER:

Timely submission of Replies

6.1.1 The Commission directs the Petitioner that for any tariff filing in future period, it shall submit all the replies to data gaps and any additional information asked by the Commission in a timely manner..

Submission of workable format:

6.1.2 The Commission directs the Petitioner that for any tariff filing in future period, it shall submit provide all Forms specified in UPERC Generation MYT Regulations, with all internal linkages and formulae in workable excel file.

100% utilization of ash:

6.1.3 Petitioner in its submission dated September 10 2021 has stated that the MoEFCC (April 2021) published its draft notification wherein the time line for achieving 100% utilization proposed to be extended depending upon the actual percentage of ash utilization achieved in FY 2021-22 including phase wise utilization of legacy ash. In this regard, Petitioner has requested the Commission to allow built of sufficient capacity of ash dyke by way of bund raising in order to meet the proposed utilization timeline of MoEF&CC.

6.1.4 The Commission in above state notification observed that the unutilised accumulated ash i.e. the legacy ash, which is stored before shall be utilised progressively by the TPPs in such manner that the utilisation of legacy ash shall be completed fully within 10 year applicable from 1 April, 2022. Further, the notification has provided the minimum quantity of legacy ash utilisation in percentage as mentioned in Table below, based on annual ash generation as per installed capacity of TPP:

Year	1st Year	2nd Year	3rd -10th
Utilisation of legacy ash	At least 20%	At least 35%	Atleast 50%

6.1.5 Notification further provided that every coal/lignite based thermal power plant shall be responsible to utilise 100% ash (fly ash and bottom ash) generated during that year. However, in no case shall utilisation fall below 80 % in any year. Also, it should achieve average ash utilisation of 100% in a 3-year cycle.

6.1.6 The Commission directs the Petitioner to ensure that measures shall be taken to achieve its responsibility of 100% ash utilization through suitable measures and submit its action plan for 100% ash utilisation along with the MYT Petition for next control period.

Display of fuel parameters on website:

6.1.7 Second proviso to Regulation 26(b)(ii) of UPERC Generation Tariff Regulation, 2014 mandates the generation company to display the complete details of its fuel procured and consumed, its GCV, blending details etc. on its website. The same has been directed by the Commission to the Petitioner vide it MYT Order dated 22.08.2017:

> *(b) Adjustment of Rate of Energy Charge on Account of Variation in price or Heat Value of Fuels:*
> *Any variation shall be adjusted on month to month basis on the basis of Gross Calorific Value of coal or gas or liquid fuel as received and landed cost incurred by the generating company for procurement of coal, oil, or gas or liquid fuel, as the case may be. No separate petition needs to be filed with the Commission for fuel price adjustment. In case of any dispute, an appropriate application in accordance with Uttar Pradesh Electricity Regulatory Commission (Conduct of Business) Regulations 2004, as amended from time to time or any statutory re-enactment thereof, shall be made before the Commission.*
>
> ***Provided further that copies of the bills and details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months.***
>
> *However, UPPCL shall verify the "As Received GCV" and landed cost of coal from the original coal purchase bills.*

6.1.8 UPPCL in its affidavit dated June 30, 2021 has submitted that Petitioner has till now has neither displayed the complete details of its fuel procured and consumed, its GCV, blending details etc. on their website. Further, the Petitioner vide its submission dated August 31, 2021 has clarified that, they are in process of upgrading and migrating data server/ data center. The Petitioner also stated that once the said activity is completed, required data will be make available on the website.

6.1.9 From above submission of Petitioner, the Commission observed that there was plenty of time with the Petitioner to display details of its fuel procured and consumed, its GCV, blending details etc. on website. However, the Petitioner failed to complied with the Commission's direction even after provided with ample time to comply same.

6.1.10 In view of above the Commission reiterates and directs the Petitioner to Provid copies of the bills and details of parameters of GCV and price of fuel

i.e. domestic coal, imported coal, e-auction coal, lignite, liquid fuel etc., whichever applicable, details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal to UPPCL on monthly basis along with the bills for verification.

6.1.11 The GCV of domestic coal shall be certified by NABL accredited lab and Petitioner is directed to appoint CIMFR for taking GCV at the loading end.

6.1.12 All the above details of shall also be displayed on the website of the generating company, within three month from date of Order. In case, Petitioner's fail to comply above direction, the Commission shall be liable to penalise the Petitioner as per Section 142 of Electricity Act, 2003.

(Vinod Kumar Srivastava)
Member

(Kaushal Kishore Sharma)
Member

(Raj Pratap Singh)
Chairman

Place: Lucknow
Dated: 25.02.2022

ANNEXURE-A:

COMMENTS/ SUGGESTIONS/ OBJECTIONS/ REPRESENTATIONS ON TRUE-UP PETITION AND RSPCL'S RESPONSE THEREON

A. Non submission of key Tariff Forms and documents mandated under the Regulations:

Respondents/Stakeholders Submission

1. In the counter Affidavit filed by UPPCL on June 30, 2021, it has submitted that the Petitioner has not submitted several prescribed formats and documents which are crucial for conducting the prudence check by the Commission and in some cases the Petitioner has merely submitted 'Not Applicable' and has not furnished the required information.

RSPCL's reply

2. Petitioner submitted all the formats sought by UPPCL. Petitioner also stated that, it has already responded to the aforesaid contention raised by UPPCL vide Additional Submission dated 23.12.2020 to the Commission.

B. Audited Accounts

Respondents/Stakeholders Submission

3. In the counter Affidavit filed by UPPCL on June 30, 2021, it has submitted that the Petitioner has not submitted the audited accounts with the true-up Petition and submitted that the Commission may direct the Petitioner to submit the complete set of Audited Accounts for the period FY 2014-15 to FY 2018-19 and thereafter provide an opportunity to UPPCL to submit written comments and objections on the same. Further, UPPCL submitted copy of letters dated 07.07.2020 and 23.7.2020 issued to the Petitioner seeking the audited accounts and other information as required as per Regulations.

RSPCL's reply

4. Petitioner submitted true copy of Audited Annual Account for afore said period. Petitioner also stated that, it has already submitted the audited account to the Commission vide its Submission dated 18.11.2020.

C. Auditor Certificate provided is not by Statutory Auditor:

Respondents/Stakeholders Submission

5. In the counter Affidavit filed by UPPCL on June 30, 2021, submitted that the Auditor Certificates provided by the Petitioner in respect of discharge of liabilities, sharing of gains and additional capitalization are not certified by the Statutory Auditor of the Company. Accordingly, UPPCL requested the Commission to direct the Petitioner to submit the Auditor Certificate in respect of discharge of liabilities, sharing of gains and additional capitalization in respect of financial year duly attested by Statutory Auditor who has audited the financial statements.

RSPCL's reply

6. Petitioner submitted that, the Commission has already sought certificate from the statutory auditor and it is in process of getting the same. Petitioner further stated that the said certificate shall be submitted before the Commission as and when the same is made available to the Petitioner.

D. Sharing of Efficiency Gains:

Respondents/Stakeholders Submission

7. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Petitioner has erroneously interpreted the Regulation 6(6) of the UPERC Generation Tariff Regulations, 2014 and has computed the efficiency gains in a simplified manner by simply reducing the variable charges claimed from UPPCL with the fuel cost as per audited accounts. UPPCL submitted that the Petitioner has overlooked the Regulation 6(6) of the UPERC Generation Tariff Regulations, 2014 as per which it was required to provide the actual Gross Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption for each month and compute the actual energy charge rate. Accordingly, UPPCL requested the Commission that it may direct the Petitioner to submit the details of operating parameters Gross Station Heat Rate, Auxiliary Consumption and Secondary Fuel Oil Consumption, transit losses, GCV and price of each type of coal, GCV and price of Oil etc. for each month of the period FY 2014-15 to FY 2018-19.

8. UPPCL further submitted that the Petitioner has failed to undertake the direction which was issued by the Commission vide its Order dated 30.05.2019 in Petition No. 1389/2018 wherein the Commission directed the Petitioner to submit the true up application for FY 2015-16 to FY 2017-18 within two months of the release of the Order and true up application for FY 2018-19 by 31.10.2019.

9. The Commission, vide the abovementioned Order dated 30.05.2019 also has quashed the recovery of Rs. 293.40 Crore issued by UPPCL to the Petitioner vide letter dated 26.09.2018 with regard to the sharing of gains on account of controllable parameters. In this regard, UPPCL submitted that though the letter dated 26.09.2018 has been set aside by the Commission, it is relevant to place reliance on the letters dated 26.09.2018 and 29.11.2018 in order to demonstrate that as per UPPCL its share of the efficiency gain along with carrying cost from 01.04.2014 to 31.03.2018 works out to be Rs. 293.4 Crore and submitted the copies for the same.

10. Without prejudice to the foregoing, UPPCL further submitted that the "variable charges claimed from UPPCL" computed by the Petitioner seem to be erroneous and does not reflect the accurate variable charges claimed by the Petitioner from UPPCL for the period from FY 2014-15 to FY 2018-19.

RSPCL's reply

11. Petitioner submitted that sharing of gain is the difference between Normative Energy Charges based on normative controllable parameter and Actual Energy Charges based on actual controllable parameters. Accordingly, RPSCL has calculated the actual variable charges in Audited Account based on actual operational parameter, and computed efficiency gain same as envisaged under Clause 6(6) of Tariff Regulation, 2014. Further, the actual parameter required under Clause 6(6) of Tariff Regulation, 2014 have been submitted by the Petitioner through various replies to the data gaps.

12. The Petitioner further submitted that the monthly energy charges billing to UPPCL for the period from November, 2014 to March, 2018 was carried out using the Coal Receipt Quantity ("GRN") at the site and for the balance period of the control period i.e., from April, 2014 to October, 2014 and April, 2018 to March, 2018 was done using the Coal Quantity Dispatched ("RR") by the coal company. Subsequently, revised energy charges calculation considering RR quantity for the entire Control Period from FY 2014-15 to FY 2018-19 was submitted to UPPCL vide letter dated 02.02.2020 and 01.07.2021. The aforesaid revision was not factorised in the instant Petition.

13. The petitioner also stated that essential components required for

computation of sharing of Gains, is under reconciliation between RPSCL and UPPCL. Hence, the data submitted along with instant True-up Petition will undergo changes, once the revised computation of Energy Charges is finalised between RPSCL and UPPCL. Accordingly, petitioner requested that, the Commission may allow petitioner to submit the revised working related to coal data and sharing of gain in the instant True-up petition.

E. Computation of Carrying Cost:

Respondents/Stakeholders Submission

14. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the calculation of carrying cost submitted by the Petitioner does not provide the interest rate which was considered in arriving the carrying cost amount. Accordingly,, has submitted that the Commission may direct the Petitioner to provide the interest rate considered for arriving the same.

RSPCL's reply

15. Petitioner submitted that the interest for computation of carrying cost is considered as per Regulation 6 (9) of the Tariff Regulations, 2014. Accordingly, the Petitioner has submitted the calculation of interest rate based on bank rate specified by the State Bank of India as Tabulated below:

Particulars	FY 2014-15	FY 2015-16	FY 2017-18	FY 2018-19	FY 2019-20
SBI Bank Rate	10.00%	10.00%	9.30%	9.10%	8.70%
Carrying Cost Int. Rate	13.50%	13.50%	12.80%	12.60%	12.20%

F. Loan Refinancing:

Respondents/Stakeholders Submission

16. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Petitioner vide letter dated 06.11.2018 addressed to the Chief Engineer (PPA), UPPCL had informed that the Petitioner has undertaken refinancing of the loan amounting to Rs. 1650 Crore in November 2014. However, the Petitioner has neither mentioned about the same in the Petition nor has passed on the gains to UPPCL. UPPCL submitted the copies of the letter dated 06.11.2018 and submitted that the Commission may direct the Petitioner to (i) submit the details of the refinancing, (ii) to submit copies of loan agreements and (iii) to pass on the gains of refinancing to UPPCL.

RSPCL's reply

17. Petitioner requested the Commission to refer the afore-mentioned Petitioner letter to UPPCL, dated 06.11.2018, wherein it has clearly mentioned that the said refinancing of some of the existing loan was done for the purpose of reducing number of lenders in the lender's consortium without any change in the term & condition and tenure of the loan vis-a-vis the term of the loan existing prior to such restructuring. The Petitioner further stated that it has not earned any gain from the aforesaid refinancing other than reducing the number of lenders.

G. Gains on Operation and Maintenance (O&M) Expenses:

Respondents/Stakeholders Submission

18. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that Note (ii) to Regulation 25 (iv) of UPERC Generation Tariff Regulations, 2019 provides that the minimum of normative O&M expenses and the actual O&M Expenses shall be allowed for a particular year. Accordingly, UPPCL submitted the normative and actual O&M expenses as below:

Particulars	Actual O&M Expenses*	Normative O&M Expenses	Difference
Derivation	(A)	(B)	(B-A)
FY 2014-15	117.30	239.40	122.10
FY 2015-16	162.57	254.52	91.95
FY 2016-17	144.54	270.48	125.94
FY 2017-18	159.97	287.52	127.55
FY 2018-19*		305.64	
Total		**1357.76**	

*to be updated once Audited Accounts are available

19. In view of the above, UPPCL submitted that the Commission may direct the Petitioner to submit the complete set of audited accounts for the period FY 2014-15 to FY 2018-19 so that the actual O&M Expenses for the period can be worked out.

RSPCL's reply

20. Petitioner submitted that under Electricity Act, 2003, CERC Tariff Regulation, 2014, Tariff Policy, 2016 and Regulation 6 of UPERC Generation Tariff Regulation, 2014, Ture-up of O&M Expense is not envisaged.

H. Appointment of separate independent Auditor in pursuance of Proviso of Regulation 6(3)

Respondents/Stakeholders Submission

21. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Commission may kindly appoint a separate independent auditor to undertake technical and financial audit of the Petitioner company for the period FY 2014-15 to FY 2018-19 in pursuance to Proviso of Regulation 6(3) of UPERC Generation tariff Regulations.

RSPCL's reply

22. Petitioner submitted that the aforesaid contention raised by UPPCL is wholly outlandish, since accounts of RPSCL are audited by the RSPCL's Statutory Auditors and the same has already submitted to the Commission.

23. Petitioner further submitted that, the term "auditor" has been defined as means an auditor appointed by the generating company in accordance with the provisions of section 224 and 619 of the Companies Act, 1956 (1 of 1956). In present case, RPSCL has already appointed Pathak H.D. & Associate as its Statutory Auditor Certificate. However, due to quarterly accounts closure there has been a delay in submitting the Auditor Certificate requested by the Commission in TVS meeting dated 07.07.2021. Same shall be submitted shortly.

24. Furthermore, Petitioner stated that, the word "may" as have been used in the proviso of Regulation 6 (3) and it is a settled law that the usage of word "may" mean discretion and is not mandatory. Therefore, if the same is held to be mandatory, it will in effect render the meaning of "auditor" in the UPERC Generation Tariff Regulations, 2014 as well as Regulation 6(3) otiose.

I. Claims from insurance company has to be reduced:

Respondents/Stakeholders Submission

25. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that from the audited accounts of Petitioner it has been observed that the Petitioner has received some insurance claims amounting to Rs. 4.30 Crore (during FY 2015-16). In this regard, UPPCL submitted that since the insurance expenses are part of O&M Expenses the same have to be reduced from the trued up ARR and accordingly submitted that the Commission may direct RPSCL to submit the complete set of audited accounts for the period FY 2014-15 to FY 2018-19 to work out the same.

RSPCL's reply

26. Petitioner submitted that the said insurance claim pertains to Business Interruptions against the damage of Turbine bearing in Unit 2 & 4, and is not part of Capital Expenditure, Controllable/ Un-controllable parameters which forms part of True-up as per UPERC Generation Tariff Regulation, 2014.

J. Other income not reduced from the True-up:

Respondents/Stakeholders Submission

27. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Petitioner is mandated to submit detailed break up of Other income in Tariff Form 13 C which has not been furnished by the Petitioner and has merely indicated that it is 'Not Applicable', whereas, it is observed that the Audited Accounts have recorded Other Income. UPPCL submitted that the Other Income has to be reduced from the ARR of the Petitioner and the Commission may kindly consider and reduce the same from the same. UPPCL further submitted that the Commission may direct RPSCL to submit the complete set of audited accounts for the period FY 2014-15 to FY 2018-19 to work out the same.

RSPCL's reply

28. Petitioner submitted that the Form 13C titled as "Other income as on COD", of the True-up formats is meant for providing other income data as on the COD of the Project. Admittedly, COD of RPSCL was achieved much prior to the Control Period FY 2014-19 and Capital Cost of RPSCL has already been approved by the Commission vide Order dated 22.08.2017. In view of above, Petitioner submitted that the Format 13C is applicable.

K. Fuel parameters displayed on the website

Respondents/Stakeholders Submission

29. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the second proviso to Regulation 26(b)(ii) mandates the generation company to display the complete details of its fuel procured and consumed, its GCV, blending details etc. on its website. However, the Petitioner has neither displayed the same on their website nor has furnished the same along with the instant Petition. In view of the above, UPPCL submitted that the Commission may direct RPSCL to submit the complete details as required by the Regulation for each month of the control period FY 2014-

15 to FY 2018-19.

RSPCL's reply

30. Petitioner stated that, they are in process of upgrading and migrating data server/ data center. The Petitioner further submitted that once the said activity is completed, required data will be make available on the website.

L. Interest on Working Capital

Respondents/Stakeholders Submission

31. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Interest on Working Capital needs to be reworked considering the proposed disallowance in O&M Expenses and reduction in efficiency gains. Accordingly, UPPCL submitted that the Commission is ought to allow the revised interest on working capital considering the above two aspects.

RSPCL's reply

32. Petitioner submitted that as per Regulation 6 of UPERC Generation Tariff Regulation, 2014, truing-up exercise shall be carried out with respect to capital expenditure including additional capital expenditure incurred up to 31.03.2019 and performance on account of controllable and uncontrollable parameter.

33. Further, Regulation 6 (4) of the said Regulation envisages that truing-up of Tariff shall be carried only for the Controllable parameter comprising Gross Station Heat Rate, Secondary fuel oil Consumption, Auxiliary Energy Consumption and Re-financing of Loan. In facts even the statement of reasons dated 16.12.2014 envisaged payment of interest on working capital on normative basis. Accordingly, the Petitioner has requested Commission to consider allowing interest on working capital on Normative basis.

M. Discharge of liability

Respondents/Stakeholders Submission

34. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that the Petitioner has considered discharge of liabilities of Rs. 82.37 Crore and Rs. 139.08 Crore in FY 2014-15 and FY 2015-16 respectively for Stage-II and in this regard the Commission may direct the Petitioner to submit the complete set of audited accounts for the period FY 2014-15 to FY 2018-19 to work out the same.

RSPCL's reply

35. In rejoinder filed by the Petitioner dated September 01, 2021, it has submitted true copy of Audited Annual Account for afore said period.

N. Additional Capitalization

Respondents/Stakeholders Submission

36. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted the Commission may direct the Petitioner to submit the complete set of audited accounts for the period FY 2014-15 to FY 2018-19 to work out the additional capitalization during the period.

RSPCL's reply

37. In rejoinder filed by the Petitioner dated September 01, 2021, it has submitted true copy of Audited Annual Account for afore said period.

O. Consequential impact of proposed disallowance on the different components of AFC

Respondents/Stakeholders Submission

38. In the counter Affidavit filed by UPPCL on June 30, 2021, it submitted that proposed disallowance in additional capitalization would have corresponding effect in reducing the claim in respect of Depreciation, Return on Equity, Interest on Loan and Interest on Working capital. Accordingly, UPPCL submitted that the Commission may kindly pass the consequential benefit in respect of the reduction in different components of AFC.

RSPCL's reply

39. Petitioner stated that contentions made by the UPPCL in the aforesaid reply are meritless, misconceived and are liable to be rejected.

UPPCL's Sur-rejoinder in the Petition submitted on November 24, 2021

Respondents/Stakeholders Submission

40. UPPCL has further submitted Sur-rejoinder to the Commission on November 24, 2021 wherein it has denied averments made by RPSCL, in its rejoinder dated September 01, 2021. Subsequently, the UPPCL in its Sur-rejoinder has highlighted key issues not satisfactorily addressed by RPSCL in in its rejoinder. Summary of same is as follows:

a) Incomplete information furnished by RSPCL

41. UPPCL submitted that, RPSCL in its rejoinder has failed to provide following information:
    - The Gross Block detail for the period from FY 2014-15 to FY 2016-17 resulting in furnishing of incomplete Form 11.
    - RPSCL has failed to furnished details of other income as per Format 13C.
    - Cost Audit Report

    Accordingly, UPPCL has requested the Commission to direct RPSCL to furnish above stated details and format.

b) Sharing of Efficiency Gains

42. UPPCL submitted that for sharing of efficiency gain, RPSCL was manded to provide the actual Gross Station Heat Rate, Auxiliary Consumption, Transit loss, GCV of coal, Price of coal, Secondary Fuel Oil Consumption and Price of Oil for each month of the control period and compute actual energy charge rate accordingly. In this light, for the correct computation of efficiency gain UPPCL requested the Commission to direct RPSCL to furnish the detail of all aforesaid operational parameter.

43. UPPCL further stated that, 'variable charges claimed from UPPCL' as submitted by RPSCL is erroneous and don't reflect the correct variable charges claimed by RPSCL from UPPCL for the control period from FY 2014-15 to FY 2018-19. Accordingly, as per the energy charged billed by the RSPCL, UPPCL submitted the detailed computation of efficiency gain to be shared by with UPPCL as shown in Table:

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Energy Charges billed by RPSCL	3,113.17	2,335.94	2,304.55	2,083.77	1,204.19
Cost of Generation as per audited account	2,800.10	2,074.95	2,041.42	1,833.56	1,029.39
Difference: Financial gains on account of SHR, AUX, SOC	313.07	260.99	263.13	250.21	174.80
20% share if beneficiary in the financial gain	62.61	52.20	52.63	50.04	34.96
Opening Balance of share of beneficial in FY	-	62.61	114.81	167.44	217.48
Addition during the FY	62.61	52.20	52.63	50.04	34.96
Closing Balance of share of beneficial in FY	62.61	114.81	167.44	217.48	252.44
Rate of Interest	13.50%	13.50%	12.80%	12.60%	12.20%
Carrying Cost on Financial Gain	4.23	11.98	18.06	24.25	28.67

Particular	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Total Share of beneficiary in the financial gain					252.44
Total Carrying cost up to FY 2018-19					87.18
Total Recovery on account of financial gain incl. carrying cost					**339.62**

44. UPPCL further submitted that the RPSCL under the guise of revision in energy charges has sought to recompute the energy charges as per the letter dated 02.09.2020 and 01.07.2021. RSPCL by stating that the reconciliation of energy charges is under process, it is making an attempt to delay the sharing of efficiency gain with UPPCL. Pertinently, the fact of the matter is not revision in energy charges but rather it is the methodology adopted for computation of energy charges by RPSCL.

c) Refinancing of Loan

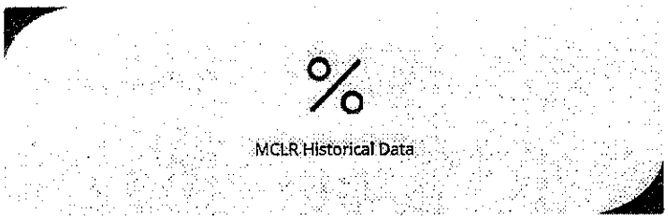
45. UPPCL submitted that as per the statutory mandate under the UPERC Tariff Regulation, 2019 qua refinancing of loan, RPSCL ought to have established the fact stated in its Rejoinder along with it being duly certified by the statutory auditor. However, in the instant situation RPSCL has failed to comply with the UPERC Tariff Regulation, 2019 on the said aspect. Accordingly, UPPCL requested the Commission to direct RPSCL to furnish the requisite certification from the statutory auditor in compliance with Regulation 25 (i)(e) of the UPERC Tariff Regulation, 2019.

d) O&M Expenses

46. UPPCL submitted that RPSCL has failed to appreciate the submission of UPPCL in their true intent and spirit and in doing so RPSCL has sought to portray an impression that UPPCL is seeking true-up of O&M Expenses. Whereas the intent of UPPCL is to appraise the Commission qua the stark difference between the actual O&M expense incurred by RPSCL and the normative O&M expense claimed by RPSCL.

47. UPPCL further submitted that on a bare perusal of Note (ii) to Regulation 25 (iv) it is evident that the lower of the actual or normative O&M Expense is allowed to the generating company. Accordingly, RPSCL's claim on normative basis toward O&M expense is not admissible. UPPCL submitted that RPSCL is obligated/ entrusted under the above stated regulation to claimed actual or normative O&M expenses, basis whether the actual

expenses incurred towards O&M activities is lower or whether the capping of normative expense will kick in i.e. in a case where the actual exceed the normative expenses provided for and allowable under the regulation.



MCLR Historical Data

Marginal Cost Lending Rates

Effective Date	Interest Rate (%)						
	ON	1M	3M	6M	1Y	2Y	3Y
15.05.2025	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.04.2025	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.03.2025	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.02.2025	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.01.2025	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.12.2024	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.11.2024	8.20	8.20	8.55	8.90	9.00	9.05	9.10
15.10.2024	8.20	8.20	8.50	8.85	8.95	9.05	9.10
15.09.2024	8.20	8.45	8.50	8.85	8.95	9.05	9.10
15.08.2024	8.20	8.45	8.50	8.85	8.95	9.05	9.10
15.07.2024	8.10	8.35	8.40	8.75	8.85	8.95	9.00
15.06.2024	8.10	8.30	8.30	8.65	8.75	8.85	8.95
15.05.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.04.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.03.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.02.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.01.2024	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.12.2023	8.00	8.20	8.20	8.55	8.65	8.75	8.85
15.11.2023	8.00	8.15	8.15	8.45	8.55	8.65	8.75
15.10.2023	8.00	8.15	8.15	8.45	8.55	8.65	8.75
15.09.2023	8.00	8.15	8.15	8.45	8.55	8.65	8.75
15.08.2023	8.00	8.15	8.15	8.45	8.55	8.65	8.75
15.07.2023	8.00	8.15	8.15	8.45	8.55	8.65	8.75
15.06.2023	7.95	8.10	8.10	8.40	8.50	8.60	8.70
15.05.2023	7.95	8.10	8.10	8.40	8.50	8.60	8.70
15.04.2023	7.95	8.10	8.10	8.40	8.50	8.60	8.70
15.03.2023	7.95	8.10	8.10	8.40	8.50	8.60	8.70
15.02.2023	7.95	8.10	8.10	8.40	8.50	8.60	8.70
15.01.2023	7.85	8.00	8.00	8.30	8.40	8.50	8.60
15.12.2022	7.85	8.00	8.00	8.30	8.30	8.50	8.60
15.11.2022	7.60	7.75	7.75	8.05	8.05	8.25	8.35
15.10.2022	7.60	7.60	7.60	7.90	7.95	8.15	8.25
15.09.2022	7.35	7.35	7.35	7.65	7.70	7.90	8.00
15.08.2022	7.35	7.35	7.35	7.65	7.70	7.90	8.00
15.07.2022	7.15	7.15	7.15	7.45	7.50	7.70	7.80
15.06.2022	7.05	7.05	7.05	7.35	7.40	7.60	7.70
15.05.2022	6.85	6.85	6.85	7.15	7.20	7.40	7.50
15.04.2022	6.75	6.75	6.75	7.05	7.10	7.30	7.40
15.03.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.02.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.01.2022	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.12.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.11.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.10.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30
15.09.2021	6.65	6.65	6.65	6.95	7.00	7.20	
15.08.2021	6.65	6.65	6.65	6.95	7.00	7.20	
15.07.2021	6.65	6.65	6.65	6.95	7.00	7.20	
15.06.2021	6.65	6.65	6.65	6.95	7.00	7.20	7.30

English

340 ANNEXURE -P/7
(COLLY)

RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

Ref No: Invoice RPSCL/2023-24/10

03rd Feb 2024

The Superintending Engineer
Electricity Import, Export and Payment Circle
UP Power Corporation Limited
11th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow 226 001

Sub: Provisional Invoice towards the supply of Power from Rosa Power Project

Ref: UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Dear Sir,

We enclose herewith provisional invoice no. Rosa TPP/ 2023-24/Invoice/10 for the month of **Jan 2024** issued on the basis of UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Please note that the present invoice is without prejudice to any of our claims, rights and entitlements under PPA and law all of which are specifically reserved.

Thanking you

For Rosa Power Supply Company Ltd

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Siddharth Shekhawat)

Authorized Signatory

03/02/24

Enclosures: As above

CC: The DGM (FM), UPPCL Lucknow

Rosa Power Supply Company Ltd.

Administrative Block, Hardoi Road PO Rausar Kothi, Tehsil Sadar, District Shahjahanpur 242406

GSTIN: 09AABCR8917M1ZR, PAN: AABCR8917M

Ref No. - Rosa TPP/2023-24/Invoice/10
Billing Period: Jan 2024
Nature of Bill: Monthly Invoice for Recovery of Fixed and Variable Charges

Bill Date 3/Feb/2024
Due Date 4/Mar/2024

To,

The Superintending Engineer, Electricty Import, Export and Payment Circle
Uttar Pradesh Power Corporation Ltd, Shakti Bhawan
14, Ashok Marg, Lucknow - 226 001
PAN : AAACU5088M

Without Prejudice
Invoice Rosa TPP

Subject: Invoice for Charges Payable by UPPCL for the month of Jan 2024

Reference: Amended and Reinstated Power Purchase Agreement (PPA) dated 12.11.2006 and all its amendments.
UPERC Order dated 16.05.2023 approving Multi-Year Tariff of Rosa TPP for FY 2019-20 to FY 2023-24.

Details of Charges Payable by UPPCL During The Billing Period

S. No.	Description	Energy (kWh)	Amount (Rs.)	Source
1	Total Fixed Charges Payable by UPPCL for the Billing Period	799,105,250	957,783,333	Fixed Charges Details (Annexure 1)
2	Total Variable Charges Payable by UPPCL for the Billing Period	639,547,387	2,059,982,125	Variable Charges Details (Annexure 2)
3	Total Amount Payable by UPPCL for the Billing Period		3,017,765,458	

Amount in Words : Rupees Three Hundred One Crores Seventy Seven Lacs Sixty Five Thousand Four Hundred Fifty Eight Only

Note:

1 Payments shall be made in the favour of **Rosa Power Supply Company Ltd, A/c No : 1001103000002615,**
(IDBI Bank Cuffe Parade WTC Branch, IFSC Code: IBKL0001001)

Annexures:

1 Details of fixed charges recoverable during the billing period
2 Details of variable charges recoverable during the billing period
3 Details of Declared Capacity and Scheduled Generation as per Schedule Issued by UP SLDC
4 Details of Variable Charges adjustment on account of corrected Scheduled Energy - Dec 2023

Authorized Signatory
(Siddharth Shekhawat)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa TPP | Billing Period: Jan 2024 | Annexure 1

Details of Fixed Charges Payable by UPPCL

S. No.	Description	Units	Value	Source
			January-24	
1	Energy as per Declared Capacity of the Billing Period for Phase I(As per the DC issued by RPSCL)	kWh	390,649,250	Annexure 3
2	Energy as per Declared Capacity of the Billing Period for Phase II (As per the DC issued by RPSCL)	kWh	408,456,000	Annexure 3
3	Total Energy Considered for Fixed Charges Calculation	kWh	799,105,250	(3 = 1 + 2)
4	No. of Days in Billing Period	Days	31	
5	Availability Factor for the Billing Period	%	97.82%	
6	Annual Fixed Charges approved by UPERC for FY 2023-24	(Rs)	11,493,400,000	UPERC MYT order dated 16/05/2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020
7	Monthly Fixed Charges	(Rs)	957,783,333	
8	Cumulative Fixed Charges Year Till End of Billing Period	(Rs)	9,577,833,333	
9	Cumulative energy as per Declared Capacity Year Till End of Billing Period	kWh	7,511,129,990	
10	Days in the current tariff year	Days	306	
11	Cumulative Availability as per Declared Capacity Year Till End of Billing Period	%	93.15%	
12	Cumulative Fixed Charges recoverable Year Till End of Billing Period	(Rs)	9,577,833,333	
13	Fixed Charges already billed Till Date	(Rs)	8,620,050,000	
14	**Fixed Charges recoverable in this bill**	**(Rs)**	**957,783,333**	

Note:

1) The invoice towards Deemed Energy due to grid disturbance/transmission line tripping and Incentive will be raised separately.

Formula For Availability Calculation	Declared Capacity / 1200 X 24 X (No. of Days) X (100% - %Auxiliary Consumption) X 1000

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa TPP	Billing Period: Jan 2024			Annexure 2
Details of Variable Charges Payable by UPPCL During The Billing Period				
	Description	**Units**	**Value**	**Source**
1	Scheduled Energy For Rosa TPP Phase I (As per the schedule issued by UP SLDC)	kWh	324,051,322	Annexure 3
2	Scheduled Energy For Rosa TPP Phase II (As per the schedule issued by UP SLDC)	kWh	315,496,065	Annexure 3
3	**Total Scheduled Energy for the Station**	kWh	639,547,387	
4	Energy Charge Rate (ECR)	(Rs)	**3.221**	Table: Energy Charge Calculation
5	Total Variable Charges calculated for the billing period	(Rs)	2,059,982,134	
6	VC Adjustment on account of corrected Scheduled Energy - Dec'23	(Rs)	-9	
7	Total Variable Charges Recoverable during the billing period (5+6)	(Rs)	2,059,982,125	
8	Effective ECR for the Billing Period	(Rs)	**3.221**	

Energy Charge Calculation					
	Description	**Formula**	**Units**	**Value**	**Remarks**
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.32211	Annexure 2A
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	639547387	Schedule Issued by UPPTCL
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3606	Annexure 2A
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.4329	Monthly Average (Annexure 2B)
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.08109431	Annexure 2B
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.221	Calculated as per formula in Generation Regulation 2019

Note:

ECR is calculated considering weighted average As Received GCV of Primary fuel in KCal/Kg less 85KCal/Kg on account of variation during storage and CV of Secondary fuel in KCal/ml as per UPERC tariff regulation 2019.

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of January'2024

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	21,419.31	-	
b	Coal Opening Rate for the month	Rs/tonne	4,305.42	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	462,641.51	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	458,940.38	-	-
c	Landed Cost of coal	Rs/tonne	4,160.82	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	127.49	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,288.31	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,322.89	-	-
g	Average Price of Coal Received	Rs/tonne			4,322.89
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		480,359.69	-	
b	Average Price of Coal in Stock	Rs/tonne	4,322.11	-	
c	Total Coal Consumed during the month	MT	423,631	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,322.11	
e	Coal Closing Quantity for the month	MT	56,728.69	-	
f	Coal Closing Rate for the month	Rs/tonne	4,322.11	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,647		
b	GCV of coal receipt during the month	kCal/Kg	3,693		
c	Weighted Average GCV of coal	kCal/Kg			3,691
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,606

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	256.516		
2	Value of the opening stock	Rs.	20,801,988.02		
3	Landed cost of Oil (Including Transportation charges)	Rs.			
4	Quantity supplied by oil company	KL			
5	Weighted average per unit secondary fuel cost	Rs./ml			0.08109431
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml			
8	Weighted average GCV of oil	kCal/ml			9.4329

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Authorised Signatory

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P.O. Rausar Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
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www.reliancepower.co.in

RECEIPT COAL GCV CERTIFICATE AS RECEIVED BASIC (ARB)					
JANUARY-2024					
Date of Receiving	RR No.	RR Qty (MT)	Declared Grade	Wagons No.	As Received Basic (ARB)
					GCV (kCal/kg)
01.01.24	162001897	3930.80	-	-	3355
01.01.24	162000051	3796.70	-	-	4159
01.01.24	162000052	4008.60	-	-	4410
01.01.24	162007210	3771.10	-	-	3620
02.01.24	162008677	3984.60	-	-	3560
02.01.24	162007212	3962.90	-	-	3862
02.01.24	162000054	3985.70	-	-	4711
02.01.24	162001899	3674.80	-	-	3574
03.01.24	162007213	3966.40	-	-	3727
03.01.24	162001900	3977.80	-	-	3576
04.01.24	162002634	3828.50	-	-	4438
04.01.24	162001901	3938.70	-	-	3514
04.01.24	162004193	3946.80	-	-	3748
05.01.24	162007215	3563.30	-	-	3938
05.01.24	152000097	4023.70	-	-	3434
05.01.24	162008688	4034.80	-	-	3402
06.01.24	162001904	3871.20	-	-	3593
06.01.24	162000055	4011.10	-	-	4514
07.01.24	162007217	3562.60	-	-	4026
07.01.24	162008701	4077.60	-	-	3337
07.01.24	162008702	4062.70	-	-	3271
07.01.24	162008698	4055.40	-	-	3289
07.01.24	162000056	4033.60	-	-	4089
07.01.24	162007218	4004.20	-	-	3288
08.01.24	162000057	4051.30	-	-	4421

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

08.01.24	162007219	4052.70	-	-	3744
08.01.24	162001909	3923.40	-	-	3538
08.01.24	162008712	4119.00	-	-	3419
09.01.24	162006135	3991.70	G-9	18	3909
			G-10	40	3798
09.01.24	162007220	3998.20	-	-	3914
09.01.24	162001910	4072.00	-	-	3423
09.01.24	162000060	3982.70	-	-	4418
10.01.24	152000001	3959.40	-	-	3880
10.01.24	162007221	3683.00	-	-	4014
11.01.24	162001911	4079.90	-	-	3525
11.01.24	162008723	3943.00	-	-	3461
11.01.24	162001912	3748.40	-	-	3599
11.01.24	162000063	3964.70	-	-	4570
12.01.24	162001545	3887.40	-	-	4546
12.01.24	162008737	4009.80	-	-	3133
12.01.24	162008736	4020.60	-	-	3187
12.01.24	162007222	3646.60	-	-	3929
12.01.24	162000065	4005.40	-	-	4494
12.01.24	162008740	4031.40	-	-	3114
13.01.24	162007224	4094.10	-	-	3961
14.01.24	162008746	4020.00	-	-	3314
14.01.24	162000066	3944.50	-	-	3743
14.01.24	162003419	3846.50	-	-	3067
14.01.24	162004196	3561.00	-	-	3941
14.01.24	162001546	3553.40	-	-	4702
15.01.24	162006141	4018.60	G-8	18	4498
			G-10	40	3417
15.01.24	162007225	4054.20	-	-	3816
15.01.24	162007226	4044.80	-	-	4346
16.01.24	162000069	3761.70	-	-	4385
16.01.24	162003423	3995.60	-	-	3261
16.01.24	162008758	4006.60	-	-	3178
16.01.24	162008759	4030.40	-	-	3458
16.01.24	162007227	4059.10	-	-	3910
16.01.24	162000071	4005.40	-	-	4354
17.01.24	162001919	4100.00	-	-	3209
17.01.24	162000072	4028.10	-	-	4184
18.01.24	162000073	4067.30	-	-	4311
18.01.24	162001920	4000.30	-	-	3137
18.01.24	162001921	3949.50	-	-	3512

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

18.01.24	162007228	3910.50	-	-	3630
18.01.24	162001547	3794.70	-	-	4508
18.01.24	162000074	3883.20	-	-	3991
19.01.24	162000075	4022.44	-	-	4497
19.01.24	162007229	3995.30	-	-	3883
19.01.24	162001923	3814.10	-	-	3065
19.01.24	162000076	3953.00	-	-	4037
20.01.24	162000077	4007.10	-	-	3938
20.01.24	162008789	4019.00	-	-	3309
20.01.24	162008790	4014.20	-	-	3467
20.01.24	162001924	4019.90	-	-	3451
21.01.24	162008796	4011.80	-	-	3097
21.01.24	162000079	3988.00	-	-	4058
21.01.24	462001360	4010.40	-	-	4221
22.01.24	162008795	4018.00	-	-	3448
22.01.24	162008798	4070.70	-	-	2998
22.01.24	162008799	4013.50	-	-	3458
22.01.24	162001926	4063.90	-	-	3278
23.01.24	162001548	3856.60	-	-	5015
23.01.24	162000082	3925.70	-	-	3917
24.01.24	462001362	3724.10	-	-	3616
24.01.24	162007232	3778.70	-	-	3822
24.01.24	162000084	4044.90	-	-	4501
25.01.24	162008823	3979.00	-	-	3192
25.01.24	162008824	3641.60	-	-	3257
25.01.24	162008829	4077.40	-	-	3268
25.01.24	162008828	4029.10	-	-	3150
25.01.24	162001549	3817.30	-	-	4655
25.01.24	462001365	3959.00	-	-	4602
25.01.24	162008835	4001.60	-	-	3200
26.01.24	162008836	4001.80	-	-	3315
26.01.24	162000087	3989.30	-	-	3626
27.01.24	162008843	4019.90	-	-	3290
27.01.24	162008844	4014.80	-	-	2996
27.01.24	462001368	4062.50	-	-	4084
27.01.24	162001930	3939.70	-	-	3403
27.01.24	162001931	4011.80	-	-	3312
28.01.24	162001932	4015.40	-	-	3216
28.01.24	162003492	4043.10	-	-	3238
28.01.24	162003491	4016.30	-	-	3213
28.01.24	162000092	3762.10	-	-	4086

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

29.01.24	162008863	4032.60	-	-	3263
29.01.24	162008864	4012.00	-	-	3058
29.01.24	162003496	3995.60	-	-	3309
29.01.24	162003495	3996.30	-	-	3435
30.01.24	162008869	4012.20	-	-	2912
30.01.24	162008868	4004.90	-	-	3114
30.01.24	162001936	3946.80	-	-	3464
30.01.24	162001220	3346.00	-	-	3768
31.01.24	162001937	3961.80	-	-	3642
31.01.24	162008875	4008.80	-	-	3118
31.01.24	162008876	4014.60	-	-	3207
31.01.24	462001374	3832.60	-	-	3862
Weighted Average GCV (kCal/Kg)					**3693**

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O&E)

.....x.....

RELIANCE

Rosa Power Supply
Company Limited
CIN U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P O Rausar Kothi Tehsil-Sadar
District – Shahjahanpur
Uttar Pradesh 242 406

Tel +91 05842 306600
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www reliancepower co in

SECONDARY FUEL (LDO) TEST CERTIFICATE				
JANUARY – 2024				
SR. No	Particulars	Receipt Date	Quantity (KL)	GCV (Kcal / ltr.)
1	LDO receipt	NA	NA	NA
	Weighted Average GCV			NA

Note: GCV of fuel is reported as per IS 1448-2004.

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O & E)

Annexure 3

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Jan-24	13.1760000	10.6438400
02-Jan-24	13.1760000	11.2112200
03-Jan-24	13.1760000	11.0761600
04-Jan-24	13.1760000	11.3232000
05-Jan-24	13.1760000	11.5084800
06-Jan-24	13.1760000	10.4997350
07-Jan-24	13.1760000	10.2709100
08-Jan-24	13.1760000	10.4997350
09-Jan-24	13.1760000	9.6968500
10-Jan-24	13.1760000	10.3144500
11-Jan-24	13.1760000	9.8554600
12-Jan-24	13.1760000	9.9438850
13-Jan-24	13.1760000	11.6320000
14-Jan-24	13.1760000	11.1942000
15-Jan-24	13.1760000	11.8172700
16-Jan-24	13.1760000	11.9202100
17-Jan-24	13.1760000	11.8790300
18-Jan-24	13.1760000	11.3232550
19-Jan-24	13.1760000	11.4673100
20-Jan-24	13.1760000	11.6114150
21-Jan-24	13.1760000	11.3025950
22-Jan-24	12.1452500	10.4760820
23-Jan-24	6.5880000	5.4763276
24-Jan-24	6.5880000	5.7336475
25-Jan-24	9.5760000	8.4785250
26-Jan-24	13.1760000	10.2732900
27-Jan-24	13.1760000	10.0262400
28-Jan-24	13.1760000	10.4585800
29-Jan-24	13.1760000	10.3762200
30-Jan-24	13.1760000	11.3438100
31-Jan-24	13.1760000	10.4173900
TOTAL	390.649250	324.051322

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Jan-24	13.1760000	9.6762950
02-Jan-24	13.1760000	9.9562700
03-Jan-24	13.1760000	10.5203200
04-Jan-24	13.1760000	11.0349900
05-Jan-24	13.1760000	11.0144000
06-Jan-24	13.1760000	10.1497650
07-Jan-24	13.1760000	9.4909750
08-Jan-24	13.1760000	9.5527550
09-Jan-24	13.1760000	9.4498150
10-Jan-24	13.1760000	9.7792000
11-Jan-24	13.1760000	9.4086300
12-Jan-24	13.1760000	9.6308600
13-Jan-24	13.1760000	10.2765800
14-Jan-24	13.1760000	9.2558150
15-Jan-24	13.1760000	11.1790950
16-Jan-24	13.1760000	11.2202700
17-Jan-24	13.1760000	11.5290750
18-Jan-24	13.1760000	10.9114850
19-Jan-24	13.1760000	11.0144150
20-Jan-24	13.1760000	10.8122000
21-Jan-24	13.1760000	10.0703550
22-Jan-24	13.1760000	10.5820900
23-Jan-24	13.1760000	9.9644800
24-Jan-24	13.1760000	10.9114750
25-Jan-24	13.1760000	10.6644300
26-Jan-24	13.1760000	9.1410100
27-Jan-24	13.1760000	9.4704050
28-Jan-24	13.1760000	8.9763250
29-Jan-24	13.1760000	9.8409650
30-Jan-24	13.1760000	10.2938750
31-Jan-24	13.1760000	9.7174450
TOTAL	408.456000	315.496065



Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Total corrected Schedule Energy for the Station	kWh	568,500,925	Annexure 3
2	Energy Charge Rate (ECR)	Rs/ kWh	3.248	Table: Energy Charge Calculation
3	**Total billing Charges Recoverable for the Billing Period**	(Rs)	**1,846,491,004**	
4	Total Variable Charges already recovered	(Rs)	1,846,491,013	Ref No. - Rosa TPP/2023-24/Invoice/09
5	Total Variable Charges billed to UPPCL for the Billing Period	(Rs)	**-9**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.30542	
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	568500925	
3	Auxiliary Consumption (for Electrically driven boiler feed pump and Induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3562	
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.43	
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.08109431	
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.248	

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Annexure 5

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Dec-23	13.1760000	8.3793050
02-Dec-23	13.1760000	9.1821900
03-Dec-23	13.1760000	8.0704950
04-Dec-23	13.1760000	8.8939550
05-Dec-23	13.1760000	9.0792400
06-Dec-23	13.1760000	9.3512300
07-Dec-23	13.1760000	9.0709200
08-Dec-23	13.1760000	9.6145100
09-Dec-23	13.1760000	8.7704500
10-Dec-23	13.1760000	8.2557050
11-Dec-23	13.1760000	9.4086400
12-Dec-23	12.7320000	10.0663150
13-Dec-23	9.2550000	6.9890825
14-Dec-23	6.5880000	4.7249075
15-Dec-23	6.5880000	4.8999000
16-Dec-23	6.5880000	4.8381300
17-Dec-23	12.2973750	9.1265150
18-Dec-23	13.1760000	9.6568850
19-Dec-23	13.1760000	9.9392550
20-Dec-23	13.1760000	10.7467800
21-Dec-23	13.1760000	10.9114650
22-Dec-23	13.1760000	11.1585150
23-Dec-23	13.1760000	10.6442600
24-Dec-23	13.1760000	9.6968550
25-Dec-23	13.1760000	10.6644200
26-Dec-23	13.1760000	9.7380200
27-Dec-23	13.1760000	10.4173950
28-Dec-23	13.1760000	10.6438650
29-Dec-23	13.1760000	11.0055900
30-Dec-23	13.1760000	10.8497050
31-Dec-23	13.1760000	10.4379850
TOTAL	383.448375	285.232485

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Dec-23	13.1760000	8.1734300
02-Dec-23	13.1760000	8.7155600
03-Dec-23	13.1760000	7.8646100
04-Dec-23	13.1760000	8.3998750
05-Dec-23	13.1760000	8.5128350
06-Dec-23	13.1760000	8.3998800
07-Dec-23	13.1760000	8.1734400
08-Dec-23	13.1760000	8.8822900
09-Dec-23	13.1760000	8.3264050
10-Dec-23	13.1760000	7.3705500
11-Dec-23	13.1760000	8.8734050
12-Dec-23	13.1760000	9.9850650
13-Dec-23	13.1760000	9.8409600
14-Dec-23	13.1760000	8.7498550
15-Dec-23	13.1760000	9.2233600
16-Dec-23	13.1760000	9.2851150
17-Dec-23	13.1760000	7.9684550
18-Dec-23	13.1760000	9.0523750
19-Dec-23	13.1760000	9.3263000
20-Dec-23	13.1760000	9.7585950
21-Dec-23	13.1760000	10.0880000
22-Dec-23	13.1760000	10.0056550
23-Dec-23	13.1760000	9.4391500
24-Dec-23	13.1760000	8.9351750
25-Dec-23	13.1760000	9.5710850
26-Dec-23	13.1760000	9.4086300
27-Dec-23	13.1760000	9.5364500
28-Dec-23	13.1760000	10.1909550
29-Dec-23	13.1760000	10.8702850
30-Dec-23	13.1760000	10.6644250
31-Dec-23	13.1760000	9.6762700
TOTAL	408.456000	283.268440



RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

Ref No: Invoice RPSCL/2023-24/11

05th March 2024

The Superintending Engineer
Electricity Import, Export and Payment Circle
UP Power Corporation Limited
11th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow 226 001

Sub: Provisional Invoice towards the supply of Power from Rosa Power Project

Ref: UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Dear Sir,

We enclose herewith provisional invoice no. Rosa TPP/ 2023-24/Invoice/11 for the month of **Feb 2024** issued on the basis of UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Please note that the present invoice is without prejudice to any of our claims, rights and entitlements under PPA and law all of which are specifically reserved.

Thanking you

For Rosa Power Supply Company Ltd

(Siddharth Shekhawat)
Authorized Signatory

Enclosures: As above

CC: The DGM (FM), UPPCL Lucknow

Govind 15/03/24
प्राप्तकर्ता
वि०आ०नि० एवं भु मण्डल
शक्ति भवन विस्तार
लखनऊ

Rosa Power Supply Company Ltd.

Administrative Block, Hardoi Road PO Rausar Kothi, Tehsil Sadar, District Shahjahanpur 242406

GSTIN: 09AABCR8917M1ZR, PAN: AABCR8917M

Ref No. - Rosa TPP/2023-24/Invoice/11
Billing Period: Feb 2024
Nature of Bill: Monthly Invoice for Recovery of Fixed and Variable Charges

Bill Date 5/Mar/2024
Due Date 4/Apr/2024

To,
The Superintending Engineer, Electricty Import, Export and Payment Circle
Uttar Pradesh Power Corporation Ltd, Shakti Bhawan
14, Ashok Marg, Lucknow - 226 001
PAN : AAACU5088M

Without Prejudice
Invoice Rosa TPP

Subject: Invoice for Charges Payable by UPPCL for the month of Feb 2024

Reference: Amended and Reinstated Power Purchase Agreement (PPA) dated 12.11.2006 and all its amendments.
UPERC Order dated 16.05.2023 approving Multi-Year Tariff of Rosa TPP for FY 2019-20 to FY 2023-24.

Details of Charges Payable by UPPCL During The Billing Period

S. No.	Description	Energy (kWh)	Amount (Rs.)	Source
1	Total Fixed Charges Payable by UPPCL for the Billing Period	763,263,000	957,783,333	Fixed Charges Details (Annexure 1)
2	Total Variable Charges Payable by UPPCL for the Billing Period	546,350,979	1,714,405,219	Variable Charges Details (Annexure 2)
3	Total Amount Payable by UPPCL for the Billing Period		2,672,188,552	

Amount in Words : Rupees Two Hundred Sixty Seven Crores Twenty One Lacs Eighty Eight Thousand Five Hundred Fifty Two Only

Note:

1 Payments shall be made in the favour of **Rosa Power Supply Company Ltd, A/c No : 1001103000002615,**
(IDBI Bank Cuffe Parade WTC Branch, IFSC Code: IBKL0001001)

Annexures:

1 Details of fixed charges recoverable during the billing period
2 Details of variable charges recoverable during the billing period
3 Details of Declared Capacity and Scheduled Generation as per Schedule Issued by UP SLDC
4 Details of Adjustment in VC for the month of Oct 2023 due to revised GCV on CIMFR Values
5 Details of Adjustment in VC for the month of Nov 2023 due to revised GCV on CIMFR Values

Authorized Signatory
LUCKNOW
(Siddharth Shekhawat)

Rosa TPP | Billing Period: Feb 2024 | Annexure 1

Details of Fixed Charges Payable by UPPCL

S. No.	Description	Units	Value	Source
			February-24	
1	Energy as per Declared Capacity of the Billing Period for Phase I(As per the DC issued by RPSCL)	kWh	381,159,000	Annexure 3
2	Energy as per Declared Capacity of the Billing Period for Phase II (As per the DC issued by RPSCL)	kWh	382,104,000	Annexure 3
3	Total Energy Considered for Fixed Charges Calculation	kWh	763,263,000	(3 = 1 + 2)
4	No. of Days in Billing Period	Days	29	
5	Availability Factor for the Billing Period	%	99.88%	
6	Annual Fixed Charges approved by UPERC for FY 2023-24	(Rs)	11,493,400,000	UPERC MYT order dated 16/05/2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020
7	Monthly Fixed Charges	(Rs)	957,783,333	
8	Cumulative Fixed Charges Year Till End of Billing Period	(Rs)	10,535,616,667	
9	Cumulative energy as per Declared Capacity Year Till End of Billing Period	kWh	8,274,392,990	
10	Days in the current tariff year	Days	335	
11	Cumulative Availability as per Declared Capacity Year Till End of Billing Period	%	93.73%	
12	Cumulative Fixed Charges recoverable Year Till End of Billing Period	(Rs)	10,535,616,667	
13	Fixed Charges already billed Till Date	(Rs)	9,577,833,333	
14	**Fixed Charges recoverable in this bill**	**(Rs)**	**957,783,333**	

Note:

1) The invoice towards Deemed Energy due to grid disturbance/transmission line tripping and Incentive will be raised separately.

LUCKNOW

Formula For Availability Calculation: $\frac{\text{Declared Capacity}}{1200 \times 24 \times (\text{No. of Days}) \times (100\% - \%\text{Auxiliary Consumption}) \times 1000}$

Rosa TPP	Billing Period: Feb 2024	Annexure 2

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Scheduled Energy For Rosa TPP Phase I (As per the schedule issued by UP SLDC)	kWh	291,822,697	Annexure 3
2	Scheduled Energy For Rosa TPP Phase II (As per the schedule issued by UP SLDC)	kWh	254,528,282	Annexure 3
3	**Total Scheduled Energy for the Station**	**kWh**	546,350,979	
4	Energy Charge Rate (ECR)	(Rs)	**3.272**	Table: Energy Charge Calculation
5	Total Variable Charges calculated for the billing period	(Rs)	1,787,660,403	
6	VC Adjustment on account of CIMFR GCV Values (unloading end) - Oct'23	(Rs)	-78,624,619	
7	VC Adjustment on account of CIMFR GCV Values (unloading end) - Nov'23	(Rs)	5,369,435	
8	Total Variable Charges Recoverable during the billing period (5+6+7)	(Rs)	1,714,405,219	
9	Effective ECR for the Billing Period	(Rs)	**3.138**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.34089	Annexure 2A
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	546350979	Schedule issued by UPPTCL
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3565	Annexure 2A
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.4329	Monthly Average (Annexure 2B)
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.08109431	Annexure 2B
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.272	Calculated as per formula in Generation Regulation 2019

Note:

ECR is calculated considering weighted average As Received GCV of Primary fuel in KCal/Kg less 85KCal/Kg on account of variation during storage and CV of Secondary fuel in KCal/ml as per UPERC tariff regulation 2019.

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of February'2024

Annexure 2A					
Sl. No.	**Description**	**Unit**	**Value**		
1	**Opening Stock Details**				
			Domestic Coal	***Imported Coal***	
a	Coal Opening Quantity for the month	MT	56,728.69	-	
b	Coal Opening Rate for the month	Rs/tonne	4,322.11	-	
2	**Receipt Coal Details**				
			Linkage Coal	***One Time Coal***	***Imported Coal***
a	Receipt Quantity	MT	450,615.95	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	447,011.02	-	-
c	Landed Cost of coal	Rs/tonne	4,192.36	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	116.16	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,308.52	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,343.27	-	-
g	Average Price of Coal Received	Rs/tonne			4,343.27
3	**Coal Stock Position for the month**				
			Domestic Coal	***Imported Coal***	
a	Coal Stock for the Month (Quantity)		503,739.71	-	
b	Average Price of Coal in Stock	Rs/tonne	**4,340.89**	-	
c	Total Coal Consumed during the month	MT	371,206	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		**4,340.89**	
e	Coal Closing Quantity for the month	MT	132,533.71	-	
f	Coal Closing Rate for the month	Rs/tonne	4,340.89	-	
4	**Quality**				
a	GCV of coal for the opening coal stock	kCal/Kg	**3,691**		
b	GCV of coal receipt during the month	kCal/Kg	**3,645**		
c	Weighted Average GCV of coal	kCal/Kg			**3,650**
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			**3,565**

Annexure 2B					
Sl. No.	**Description**	**Unit**	**Value**		
			LDO	**HFO**	**Average**
1	Oil Opening Quantity for the month	KL	225.266		
2	Value of the opening stock	Rs.	18,267,790.84		
3	Landed cost of Oil (Including Transportation charges)	Rs.			
4	Quantity supplied by oil company	KL			
5	Weighted average per unit secondary fuel cost	Rs./ml			0.08109431
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml	-		
8	Weighted average GCV of oil	kCal/ml			9.4329

POWER SUPPLY COMPANY LIMITED LUCKNOW

Authorised Signatory

RELIANCE

Rosa Power Supply
Company Limited
CIN U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P.O. Rausar Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel +91 05842 306600
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RECEIPT COAL GCV CERTIFICATE AS RECEIVED BASIC (ARB)					
February-2024					
Date of Receiving	RR No.	RR Qty (MT)	Declared Grade	Wagons No.	As Received Basic (ARB)
					GCV (kCal/kg)
01.02.24	162008879	4013.20	-	-	3503
01.02.24	162008880	4015.70	-	-	3306
01.02.24	162000100	4009.30	-	-	3862
02.02.24	162008888	3969.50	-	-	3367
02.02.24	162008889	3992.10	-	-	3469
02.02.24	162000102	4067.30	-	-	3486
03.02.24	162001938	3997.10	-	-	3698
03.02.24	162008897	4029.70	-	-	3068
03.02.24	162008896	4022.00	-	-	3305
03.02.24	162000105	3968.20	-	-	4280
04.02.24	162008905	4016.60	-	-	3206
04.02.24	162008904	3977.70	-	-	3046
04.02.24	162008906	4015.90	-	-	3365
04.02.24	162008907	4014.60	-	-	3166
05.02.24	162001939	4043.20	-	-	3646
05.02.24	162000106	4041.90	-	-	3898
05.02.24	162001941	4083.00	-	-	3276
05.02.24	162002641	3964.00	-	-	4710
06.02.24	162008914	3990.40	-	-	3261
06.02.24	162008915	4018.70	-	-	2949
06.02.24	162004201	4087.50	-	-	3929
06.02.24	162001943	4024.80	-	-	3979
06.02.24	162000107	4060.40	-	-	4277
07.02.24	162008924	3963.20	-	-	3144
07.02.24	162008923	3971.40	-	-	3070

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

07.02.24	162008929	4017.80	-	-	3310
07.02.24	152000002	4054.90	-	-	4285
07.02.24	162007238	3843.80	-	-	3313
08.02.24	162001947	3873.00	-	-	3776
08.02.24	162001948	4052.20	-	-	3542
09.02.24	162008938	4005.00	-	-	2835
09.02.24	162008937	4032.80	-	-	3093
09.02.24	162002643	4036.30	-	-	4507
09.02.24	162008936	3695.30	-	-	3111
10.02.24	162008947	4025.00	-	-	3296
10.02.24	162008946	4025.40	-	-	3240
10.02.24	162007241	4039.30	-	-	3395
11.02.24	162008953	4046.00	-	-	2950
11.02.24	162008954	4017.60	-	-	2733
11.02.24	142000003	3461.60	-	-	4265
11.02.24	162001552	3531.70	-	-	4693
12.02.24	162008959	4016.50	-	-	3021
12.02.24	162007242	3687.80	-	-	3270
12.02.24	462001390	3900.30	-	-	4314
12.02.24	162007243	4018.00	-	-	3370
12.02.24	162001953	3947.20	-	-	4211
12.02.24	162000115	3925.40	-	-	4098
12.02.24	152000237	4028.50	-	-	3014
12.02.24	162001222	4011.60	-	-	4000
13.02.24	162008965	4025.50	-	-	3077
13.02.24	162008964	4035.30	-	-	3007
13.02.24	162001952	4079.80	-	-	4124
13.02.24	162002644	3835.40	-	-	4518
14.02.24	162008970	4016.90	-	-	3213
14.02.24	162007245	4083.10	-	-	2884
14.02.24	162008969	4011.20	-	-	2791
14.02.24	162000117	4032.30	-	-	3991
14.02.24	162000119	4001.20	-	-	4377
15.02.24	162000121	4019.80	-	-	3576
15.02.24	162001958	3998.90	-	-	3633
16.02.24	462001395	4081.00	-	-	4445
16.02.24	162001959	4024.20	-	-	3794
16.02.24	162007246	3977.60	-	-	3497
16.02.24	162008985	4029.00	-	-	2713
16.02.24	162008986	4008.20	-	-	2746
17.02.24	162008989	4029.20	-	-	2921

POWER SUPPLY COMPANY LUCKNOW LIMITED

RELIANCE

17.02.24	162008988	4018.80	-	-	2964
17.02.24	162001960	3940.80	-	-	3680
18.02.24	162002646	4010.90	-	-	4406
18.02.24	162007247	3811.20	-	-	4339
18.02.24	162008997	4021.00	-	-	3085
18.02.24	162004204	3969.30	-	-	3597
19.02.24	462001399	4056.00	-	-	4430
19.02.24	162000128	4003.90	-	-	4064
19.02.24	162009002	4040.80	-	-	3016
19.02.24	162009003	4083.50	-	-	3047
19.02.24	162000130	4027.00	-	-	3887
20.02.24	162009012	4020.20	-	-	3328
20.02.24	162009011	4039.60	-	-	3040
20.02.24	162000132	4025.70	-	-	4464
20.02.24	162007249	3982.90	-	-	4151
21.02.24	162009020	3928.70	-	-	3154
21.02.24	162009019	3906.60	-	-	3183
21.02.24	162002647	3819.00	-	-	4367
21.02.24	162000135	4031.10	-	-	4164
21.02.24	162004205	3939.00	-	-	3778
22.02.24	462001403	3880.60	-	-	3795
22.02.24	152000098	3948.20	-	-	3856
22.02.24	162009032	3916.40	-	-	3184
22.02.24	162000137	4068.70	-	-	4209
23.02.24	162000140	4008.60	-	-	4432
23.02.24	162007251	3786.50	-	-	3399
24.02.24	162009041	4024.80	-	-	3192
24.02.24	162007253	3700.40	-	-	3761
24.02.24	162001962	4011.60	-	-	3808
24.02.24	162007252	3972.80	-	-	3984
24.02.24	162007254	3994.00	-	-	3989
25.02.24	162001963	4024.40	-	-	3639
25.02.24	162000143	3868.10	-	-	4505
26.02.24	462001408	3961.00	-	-	4442
26.02.24	162009046	4024.80	-	-	3192
26.02.24	162001964	4046.50	-	-	4163
26.02.24	162001965	3806.10	-	-	3625
27.02.24	162000146	3981.40	-	-	4399
27.02.24	162004207	4020.20	-	-	3853
27.02.24	162001966	4093.10	-	-	3795
28.02.24	162002649	3910.00	-	-	4681

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

28.02.24	162009075	4020.20	-	-	3146
28.02.24	162009076	4087.40	-	-	3317
28.02.24	162000149	4041.70	-	-	5043
28.02.24	162000150	4023.10	-	-	4116
29.02.24	462001412	4020.30	-	-	4337
29.02.24	162009089	4012.70	-	-	2996
Weighted Average GCV (kCal/Kg)					3645

Rajeev Kumar
(Chemistry)

NOIDA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O&E)

.....x.....

RELIANCE

Rosa Power Supply
Company Limited
CIN U3110MH1994PLC243148

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SECONDARY FUEL (LDO) TEST CERTIFICATE				
FEBRUARY – 2024				
SR. No	Particulars	Receipt Date	Quantity (KL)	GCV (Kcal / ltr.)
1	LDO receipt	NA	NA	NA
	Weighted Average GCV			NA

Note: GCV of fuel is reported as per IS 1448-2004.

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O & E)

Annexure 3

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Feb-24	13.1760000	9.5527450
02-Feb-24	13.1760000	10.2527050
03-Feb-24	13.1760000	9.8203600
04-Feb-24	13.1760000	9.4086250
05-Feb-24	12.2310000	8.7741520
06-Feb-24	13.1760000	9.4909850
07-Feb-24	13.1760000	9.7380250
08-Feb-24	13.1760000	9.4910000
09-Feb-24	13.1760000	10.8702800
10-Feb-24	13.1760000	10.9114850
11-Feb-24	13.1760000	9.5321350
12-Feb-24	13.1760000	10.2321100
13-Feb-24	13.1760000	10.6850050
14-Feb-24	13.1760000	10.2321050
15-Feb-24	13.1760000	10.4379500
16-Feb-24	13.1760000	10.4791200
17-Feb-24	13.1760000	10.6644250
18-Feb-24	13.1760000	9.6350550
19-Feb-24	13.1760000	9.9316350
20-Feb-24	13.1760000	10.4379650
21-Feb-24	13.1760000	9.7586400
22-Feb-24	13.1760000	10.7879600
23-Feb-24	13.1760000	10.8908400
24-Feb-24	13.1760000	11.8172350
25-Feb-24	13.1760000	9.6557000
26-Feb-24	13.1760000	9.2645250
27-Feb-24	13.1760000	9.0586550
28-Feb-24	13.1760000	9.9850300
29-Feb-24	13.1760000	10.0262450
TOTAL	**381.159000**	**291.822697**

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Feb-24	13.1760000	8.3792950
02-Feb-24	13.1760000	8.5646000
03-Feb-24	13.1760000	9.1616150
04-Feb-24	13.1760000	8.3998750
05-Feb-24	13.1760000	8.8997300
06-Feb-24	13.1760000	8.9763150
07-Feb-24	13.1760000	8.6263450
08-Feb-24	13.1760000	8.8116350
09-Feb-24	13.1760000	10.3453220
10-Feb-24	13.1760000	9.6396100
11-Feb-24	13.1760000	8.1116650
12-Feb-24	13.1760000	9.3880550
13-Feb-24	13.1760000	9.1410000
14-Feb-24	13.1760000	8.7704650
15-Feb-24	13.1760000	9.1615700
16-Feb-24	13.1760000	9.4498050
17-Feb-24	13.1760000	9.5939350
18-Feb-24	13.1760000	8.0705000
19-Feb-24	13.1760000	8.2763450
20-Feb-24	13.1760000	8.7087000
21-Feb-24	13.1760000	7.8234450
22-Feb-24	13.1760000	8.8527600
23-Feb-24	13.1760000	9.0380750
24-Feb-24	13.1760000	9.2028050
25-Feb-24	13.1760000	8.0293400
26-Feb-24	13.1760000	8.0704950
27-Feb-24	13.1760000	8.2558050
28-Feb-24	13.1760000	8.6675100
29-Feb-24	13.1760000	8.1116650
TOTAL	**382.104000**	**254.528282**



Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Total Schedule Energy for the Station	kWh	565,644,743	Annexure 3
2	Revised Energy Charge Rate as per GCV calculated from CIMFR Values	Rs/ kWh	3.126	Table: Energy Charge Calculation
3	**Total billing Charges Recoverable for the Billing Period**	(Rs)	**1,768,205,465**	
4	Total Variable Charges already recovered	(Rs)	1,846,830,084	Ref No. - Rosa TPP/2023-24/Invoice/07
5	Total Variable Charges billed to UPPCL for the Billing Period	(Rs)	**-78,624,619**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.47634	
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	565644743	
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3851	
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.39	
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFi	Rs/ ml	0.08220532	
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFi +LC x LPL} x 100 / (100-Aux)**	Rs	3.126	

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of October'2023 with revised GCV as per CIMFR report

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	52,999.13	-	
b	Coal Opening Rate for the month	Rs/tonne	4,368.26	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	269,095.81	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	266,943.04	-	-
c	Landed Cost of coal	Rs/tonne	4,329.58	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	132.24	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,461.82	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,497.80	-	-
g	Average Price of Coal Received -	Rs/tonne			4,497.80
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		319,942.17	-	
b	Average Price of Coal in Stock	Rs/tonne	**4,476.34**	-	
c	Total Coal Consumed during the month	MT	315,068	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,476.34	
e	Coal Closing Quantity for the month	MT	4,874.17	-	
f	Coal Closing Rate for the month	Rs/tonne	4,476.34	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	**3,762**		
b	GCV of coal receipt during the month	kCal/Kg	**3,971**		
c	Weighted Average GCV of coal	kCal/Kg			**3,936**
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			**3,851**

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	288.666		
2	Value of the opening stock	Rs.	23,040,335.23		
3	Landed cost of Oil (Including Transportation charges)	Rs.	8,581,256.00		
4	Quantity supplied by oil company	KL	96.000		
5	Weighted average per unit secondary fuel cost	Rs./ml			0.08220532
6	GCV of Oil for the opening stock	kCal/ml	9.3581		
7	Weighted average GCV of oil as received	kCal/ml	9.4884		
8	Weighted average GCV of oil	kCal/ml			9.3906

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

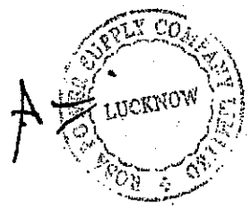
Authorised Signatory

RPSCL ROSA LAB RESULTS

RAKE COAL RESULT Oct 2023

Date of Receiving	Plant Rake No	CIMFR Sample ID	COAL SIDING	RR No.	RR Qty (MT)	Declared Grade	Wagons No.	GCV	CIMFR ADB IM	CIMFR ARB TM	CIMFR Equilibrium Moisture	CIMFR Equilibrated Ash (60% RH & 40 Temp.)	CIMFR Equilibrated GCV (60% RH & 40 Temp.)	CIMFR ARB GCV
								Kcal/kg	%	%	%	%	Kcal/Kg	Kcal/kg
01.10.23	1	CIMFR (R) RPSCL/UL/23-24/01-L-01/0607	BSDC	162006028	3444.90	-	-	5027	2.50	7.9	3.5	29.4	5241	5002
01.10.23	2	CIMFR (R) RPSCL/UL/23-24/02-L-02/0608	DCSK	162002614	3907.50	-	-	4170	6.20	16.4	7.3	28.5	4598	4147
02.10.23	3	CIMFR (R) RPSCL/UL/23-24/03-L-03/0609	SLSP	162008096	4006.00	-	-	2964	3.30	16.4	4.3	47.5	3448	3012
02.10.23	4	CIMFR (R) RPSCL/UL/23-24/04-L-04/0610	BSDC	162006030	3747.40	G-8	30	5134	2.30	8.9	3.6	26.9	5427	5129
						G-9	28	3863	2.80	10.0	4.2	39.8	4101	3853
02.10.23	5	CIMFR (R) RPSCL/UL/23-24/05-L-05/0611	DCSK	152000046	3970.60	-	-	4194	5.40	16.5	6.9	28.9	4573	4101
03.10.23	6	CIMFR (R) RPSCL/UL/23-24/06-L-06/0612	RDML	162001765	4073.70	-	-	3646	4.40	14.0	6.5	35.1	3959	3641
03.10.23	7	CIMFR (R) RPSCL/UL/23-24/07-L-07/0613	KASN	162004160	3878.20	-	-	3495	4.20	14.8	6.0	40.0	3813	3456
07.10.23	8	CIMFR (R) RPSCL/UL/23-24/08-L-08/0614	SLSP	162008099	3836.50	-	-	3135	2.30	15.9	3.0	47.6	3643	3159
06.10.23	9	CIMFR (R) RPSCL/UL/23-24/09-L-09/0615	SLSP	162008102	3873.90	-	-	3173	4.50	15.0	5.3	43.4	3728	3346
10.10.23	10	CIMFR (R) RPSCL/UL/23-24/10-L-10/0616	RDML	162001771	4103.70	-	-	3877	6.30	12.7	7.5	34.8	4135	3903
10.10.23	11	CIMFR (R) RPSCL/UL/23-24/11-L-11/0617	RDML	162001773	4063.20	-	-	3645	6.10	12.7	7.3	38.0	3916	3688
11.10.23	12	CIMFR (R) RPSCL/UL/23-24/12-L-12/0618	RDML	162001774	3931.70	-	-	3863	6.30	13.3	7.4	34.3	4219	3950
12.10.23	13	CIMFR (R) RPSCL/UL/23-24/13-L-13/0619	RDML	152000091	3959.10	-	-	3908	6.50	13.7	7.9	33.7	4206	3941
12.10.23	14	CIMFR (R) RPSCL/UL/23-24/14-L-14/0620	SLSP	162008129	3954.50	-	-	3153	3.40	14.0	4.2	46.9	3576	3210
12.10.23	15	CIMFR (R) RPSCL/UL/23-24/15-L-15/0621	SLSP	162008128	3967.10	-	-	3287	2.50	13.1	4.1	46.9	3698	3260
12.10.23	16	CIMFR (R) RPSCL/UL/23-24/16-L-16/0622	BSDC	162006044	3825.30	-	-	4374	2.30	8.7	4.0	32.8	4865	4627
13.10.23	17	CIMFR (R) RPSCL/UL/23-24/17-L-17/0623	BSDC	162006045	3419.90	-	-	4105	2.30	7.9	3.8	38.9	4550	4356
13.10.23	18	CIMFR (R) RPSCL/UL/23-24/18-L-18/0624	RDML	162001775	4052.20	-	-	3728	5.30	13.0	7.5	33.8	4233	3981
13.10.23	19	CIMFR (R) RPSCL/UL/23-24/19-L-19/0625	KASN	162004164	3678.00	-	-	3046	4.80	13.2	6.2	42.8	3534	3270
14.10.23	20	CIMFR (R) RPSCL/UL/23-24/20-L-20/0626	BSDC	162006046	3605.90	-	-	4145	2.30	8.3	3.2	35.8	4586	4439
14.10.23	21	CIMFR (R) RPSCL/UL/23-24/21-L-21/0627	RDML	162001777	3738.60	-	-	3797	5.40	13.5	8.7	32.6	4269	4046
14.10.23	22	CIMFR (R) RPSCL/UL/23-24/22-L-22/0628	SLSP	162008153	3935.70	-	-	2752	3.20	12.2	4.0	50.6	3251	2973
15.10.23	23	CIMFR (R) RPSCL/UL/23-24/23-L-23/0629	RDML	152000092	3952.40	-	-	3670	6.10	14.0	8.1	31.2	4393	4111
15.10.23	24	CIMFR (R) RPSCL/UL/23-24/24-L-24/0630	RDML	152000093	3989.10	-	-	4047	6.80	14.4	8.8	27.7	4633	4349
16.10.23	25	CIMFR (R) RPSCL/UL/23-24/25-L-25/0631	KASN	152000088	3977.20	-	-	3249	4.80	13.0	6.6	40.8	3723	3468
16.10.23	26	CIMFR (R) RPSCL/UL/23-24/26-L-26/0632	RDML	162000094	4010.70	-	-	4058	6.50	14.7	8.8	27.6	4642	4342
16.10.23	27	CIMFR (R) RPSCL/UL/23-24/27-L-27/0633	PLCP	162002953	3986.00	-	-	2559	4.40	13.7	5.8	50.5	2895	2652
16.10.23	28	CIMFR (R) RPSCL/UL/23-24/28-L-28/0634	BSDC	162006050	4086.00	G-8	30	4710	2.30	8.1	3.7	29.3	5199	4961
						G-12	28	3807	2.30	7.5	3.5	40.7	4208	4034
17.10.23	29	CIMFR (R) RPSCL/UL/23-24/29-L-29/0635	RDML	162001782	3866.70	-	-	3783	5.70	15.6	7.6	30.8	4461	4075
18.10.23	30	CIMFR (R) RPSCL/UL/23-24/30-L-30/0636	RDML	162001781	3939.10	-	-	3995	5.90	14.8	8.0	28.4	4631	4289
18.10.23	31	CIMFR (R) RPSCL/UL/23-24/31-L-31/0637	BSDC	162006051	3504.30	-	-	4462	2.60	7.7	3.6	30.9	5095	4869
18.10.23	32	CIMFR (R) RPSCL/UL/23-24/32-L-32/0638	SLSP	162008178	3946.60	-	-	3150	3.00	15.6	4.5	45.0	3785	3345
19.10.23	33	CIMFR (R) RPSCL/UL/23-24/33-L-33/0639	RDML	162001784	3896.40	-	-	3875	6.20	15.4	8.4	30.3	4486	4142
20.10.23	34	CIMFR (R) RPSCL/UL/23-24/34-L-34/0640	BSDC	162006054	3908.10	-	-	4414	2.80	8.0	3.8	35.8	4983	4765
20.10.23	35	CIMFR (R) RPSCL/UL/23-24/35-L-35/0641	KASN	152000089	3961.00	-	-	3152	5.00	13.6	7.0	41.2	3720	3448
20.10.23	36	CIMFR (R) RPSCL/UL/23-24/36-L-36/0642	RDML	162001786	3816.20	-	-	3734	6.00	14.9	8.0	32.8	4359	4032
20.10.23	37	CIMFR (R) RPSCL/UL/23-24/37-L-37/0643	BSDC	152000178B	4091.00	G-8	30	4336	2.60	8.9	3.4	34.2	4898	4619
						G-12	28	4093	2.40	6.8	3.6	36.9	4590	4428
20.10.23	38	CIMFR (R) RPSCL/UL/23-24/38-L-38/0644	BSDC	152000177B	3759.30	G-5	30	4154	2.20	5.9	3.4	37.2	4596	4477
						G-12	29	4639	2.40	6.4	3.3	31.0	5151	4986
21.10.23	39	CIMFR (R) RPSCL/UL/23-24/39-L-39/0645	RDML	162001787	4072.20	-	-	3923	6.20	17.5	8.6	29.4	4557	4113
21.10.23	40	CIMFR (R) RPSCL/UL/23-24/40-L-40/0646	SLSP	162008198	4026.70	-	-	3129	3.00	14.3	3.8	45.4	3777	3365
22.10.23	41	CIMFR (R) RPSCL/UL/23-24/41-L-41/0647	BSDC	162006058	4023.30	G-5	30	4990	2.60	7.7	3.8	26.3	5544	5319
						G-12	28	4128	2.90	7.5	3.9	37.1	4588	4416
22.10.23	42	CIMFR (R) RPSCL/UL/23-24/42-L-42/0648	RDML	162001789	3795.30	-	-	3997	6.50	17.1	8.7	28.3	4650	4222
22.10.23	43	CIMFR (R) RPSCL/UL/23-24/43-L-43/0649	BSDC	162006059	3512.10	G-5	47	3745	3.20	8.6	4.2	40.5	4212	4019
						G-12	11	4467	2.70	8.4	4.1	30.9	5034	4808
22.10.23	44	CIMFR (R) RPSCL/UL/23-24/44-L-44/0650	RDML	162000095	3913.80	-	-	4181	6.30	17.7	8.8	25.7	4787	4320
23.10.23	45	CIMFR (R) RPSCL/UL/23-24/45-L-45/0651	RDML	162001791	3680.80	-	-	3903	6.60	14.1	8.9	30.3	4427	4174
23.10.23	46	CIMFR (R) RPSCL/UL/23-24/46-L-46/0652	BSDC	162006061	3995.30	G-5	40	4764	3.30	8.5	3.8	29.0	5319	5043
						G-10	18	4686	3.50	7.7	3.8	29.8	5200	4989
24.10.23	47	CIMFR (R) RPSCL/UL/23-24/47-L-47/0653	BSDC	162006063	4076.70	G-5	40	4526	3.20	8.4	3.8	31.5	5048	4805
						G-8	19	4195	3.90	8.4	4.4	34.5	4624	4431
24.10.23	48	CIMFR (R) RPSCL/UL/23-24/48-L-48/0654	RDML	162001794	3938.80	-	-	4018	6.00	15.1	8.5	28.2	4573	4243
24.10.23	49	CIMFR (R) RPSCL/UL/23-24/49-L-49/0655	KASN	162004168	3777.00	-	-	3201	6.00	13.6	7.0	40.2	3676	3414
25.10.23	50	CIMFR (R) RPSCL/UL/23-24/50-L-50/0656	SLSP	162008226	3947.90	-	-	3587	5.90	15.0	6.2	36.6	4340	3891
27.10.23	51	CIMFR (R) RPSCL/UL/23-24/51-L-51/0657	SLSP	162008236	3984.00	-	-	3444	5.20	17.0	6.1	39.0	4139	3620
27.10.23	52	CIMFR (R) RPSCL/UL/23-24/52-L-52/0658	SLSP	162000232	4014.20	-	-	3209	4.80	8.3	4.7	41.6	3951	3802
28.10.23	53	CIMFR (R) RPSCL/UL/23-24/53-L-53/0659	BSDC	162006067	3970.00	G-5	30	4683	3.50	8.9	3.7	27.0	5447	5153
						G-8	28	4137	3.60	8.8	3.8	33.2	4839	4567
28.10.23	54	CIMFR (R) RPSCL/UL/23-24/54-L-54/0660	KASN	162004169K	3613.90	-	-	3160	6.60	14.5	6.9	40.8	3649	3351
29.10.23	55	CIMFR (R) RPSCL/UL/23-24/55-L-55/0661	RDML	162000096	3832.20	-	-	3936	8.10	15.2	8.4	30.2	4480	4147
29.10.23	56	CIMFR (R) RPSCL/UL/23-24/56-L-56/0662	BSDC	152000178B	3981.10	G-5	30	4646	3.20	10.6	3.6	30.7	5109	4738
						G-12	15	3892	3.00	7.0	3.3	39.7	4334	4168
29.10.23	57	CIMFR (R) RPSCL/UL/23-24/57-L-57/0663	RDML	162001802	3781.40	-	-	3966	7.80	14.4	8.0	29.3	4547	4231
29.10.23	58	CIMFR (R) RPSCL/UL/23-24/58-L-58/0664	KASN	162004170	3778.80	-	-	3328	6.00	13.5	6.1	39.6	3834	3532

30.10.23	59	CIMFR (R) RPSCL/UL/23-24/59-L-59/0665	BSDC	162006070	3659.30	G-6	31	4985	3.00	7.7	3.3	27.4	5423	5176
						G-12	28	4357	3.00	8.0	3.4	34.3	4829	4569
30.10.23	60	CIMFR (R) RPSCL/UL/23-24/60-L-60/0666	RDML	162001804	3970.20	-	-	3896	7.80	16.8	8.6	28.8	4456	4056
30.10.23	61	CIMFR (R) RPSCL/UL/23-24/61-L-61/0667	PLCF	152000063	3995.60	-	-	3091	5.40	11.8	6.1	43.6	3486	3274
31.10.23	62	CIMFR (R) RPSCL/UL/23-24/62-L-62/0668	BSDC	162006072	3958.80	G-5	30	5128	3.50	8.1	4.1	17.7	6304	6041
						G-03	28	3678	2.70	9.2	3.2	41.5	4182	3923
31.10.23	63	CIMFR (R) RPSCL/UL/23-24/63-L-63/0669	RDML	162001805	3876.20	-	-	3659	7.10	15.8	8.0	34.2	4157	3805
31.10.23	64	CIMFR (R) RPSCL/UL/23-24/64-L-64/0670	KASN	152000090K	4001.00	-	-	3129	6.10	14.2	6.8	41.1	3623	3335
31.10.23	65	CIMFR (R) RPSCL/UL/23-24/65-L-65/0671	SLSP	162008266	3962.50	-	-	3006	4.20	17.8	4.2	46.1	3600	3089
31.10.23	66	CIMFR (R) RPSCL/UL/23-24/66-L-66/0672	SLSP	162000233	4001.10	-	-	2602	4.10	16.9	4.1	51.9	3151	2730
31.10.23	67	CIMFR (R) RPSCL/UL/23-24/67-L-67/0673	RDML	162001807	3837.50	-	-	3455	7.20	16.1	7.8	37.0	3938	3583
31.10.23	68	CIMFR (R) RPSCL/UL/23-24/68-L-68/0674	BSDC	162006076	3978.10	G-5	30	4883	3.30	10.4	4.1	27.8	5421	5065
						G-12	28	5031	3.60	10.3	3.7	25.2	5559	5178
31.10.23	69	CIMFR (R) RPSCL/UL/23-24/69-L-69/0675	SLSP	162006269	4002.50	-	-	3042	4.30	15.3	4.1	46.1	3623	3200
					268686.80			3771						3971



सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 28.09.2023 TO 02.10.2023

UNLOADING END ANALYSIS REPORT

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/SEP-OCT/2023/40 | Power Utility- Rosa Power Supply Company Limited | Date:15-11-2023

Name of Coal Company-Central Coal Field Ltd. | Date of start of analysis -10.11.2023 | Relative Humidity of laboratory: 59%

Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample | Temperature of laboratory: 28.9°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ P. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/75L-75/23.24/0598	28-09-2023	28-09-2023	05-10-2023	3744.30	162004159	26-09-2023	4.9	40.2	3885.28	7.0	39.3	3799	G12
2	CIMFR(R)/RPSCL/UL/76L-76/23.24/0599	28-09-2023	28-09-2023	05-10-2023	3868.50	152000089	27-09-2023	5.7	35.2	4255.76	7.5	34.5	4175	G11
3	CIMFR(R)/RPSCL/UL/77L-77/23.24/0600	28-09-2023	29-09-2023	05-10-2023	3959.90	162001757	27-09-2023	5.6	37.1	4078.88	7.3	36.4	4002	G11
4	CIMFR(R)/RPSCL/UL/78L-78/23.24/0601	29-09-2023	29-09-2023	05-10-2023	4029.00	152000090	28-09-2023	4.9	38.8	3971.42	6.7	38.1	3896	G12
5	CIMFR(R)/RPSCL/UL/79L-79/23.24/0602 (G-7)	29-09-2023	30-09-2023	05-10-2023	2071.58	162006025	28-09-2023	2.0	39.7	4441.55	3.3	39.2	4383	G10
6	CIMFR(R)/RPSCL/UL/79L-79/23.24/0602 (G-8)	29-09-2023	30-09-2023	05-10-2023	1957.54	162006025	28-09-2023	2.7	36.8	4547.24	3.8	36.4	4496	G10
7	CIMFR(R)/RPSCL/UL/80L-80/23.24/0603 (G-8)	30-09-2023	30-09-2023	05-10-2023	4025.70	152000175	28-09-2023	2.3	34.9	4817.28	3.9	34.3	4738	G9
8	CIMFR(R)/RPSCL/UL/81L-81/23.24/0604	30-09-2023	30-09-2023	05-10-2023	4018.70	162008070	28-09-2023	3.0	51.9	3174.94	3.8	51.5	3149	G14
9	CIMFR(R)/RPSCL/UL/82L-82/23.24/0605	30-09-2023	30-09-2023	05-10-2023	3971.30	162008072	28-09-2023	3.0	53.7	2989.05	4.0	53.1	2958	G15
10	CIMFR(R)/RPSCL/UL/83L-83/23.24/0606	30-09-2023	01-10-2023	05-10-2023	3994.60	162002906	29-09-2023	5.0	37.8	4090.95	6.7	37.1	4018	G11
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0607 (G-8)	01-10-2023	01-10-2023	05-10-2023	3444.90	162006028	29.09.23	2.5	29.7	5295.55	3.5	29.4	5241	G7
12	CIMFR(R)/RPSCL/UL/03L-03/23.24/0609	02-10-2023	02-10-2023	05-10-2023	4006.00	162008086	01.10.23	3.3	48.0	3484.38	4.3	47.5	3448	G13

* Customer Provided Information

** Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note:

(i) Sample collected as per FSA.

(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-19 & GCV as per ASTM D-5865-19, TM as per IS 1350 [Part-I]: 1984 Reaffirmed 2013

(iii) Sulphur(s) Value has been put in the bomb calorimeter as determined in the laboratory following [ASTM D-4239-18].

(iv) None of the experiment is performed by external service provider.

(v) This report should not be replicated or reproduced.

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

POWER SUPPLY COMPANY LIMITED LUCKNOW

15.11.23

(Dr. Madhu Jha)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 28.09.2023 TO 02.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date:15-11-2023

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/SEP-OCT/2023/40
Name of Coal Company-Central Coal Field Ltd,
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -10.11.2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/75L-75/23.24/0598	28-09-2023	28-09-2023	05-10-2023	3744.30	162004159	26-09-2023	18.2
2	CIMFR(R)/RPSCL/UL/76L-76/23.24/0599	28-09-2023	28-09-2023	05-10-2023	3868.50	152000089	27-09-2023	13.6
3	CIMFR(R)/RPSCL/UL/77L-77/23.24/0600	28-09-2023	29-09-2023	05-10-2023	3959.90	162001757	27-09-2023	14.9
4	CIMFR(R)/RPSCL/UL/78L-78/23.24/0601	29-09-2023	29-09-2023	05-10-2023	4029.00	152000090	28-09-2023	14.1
5	CIMFR(R)/RPSCL/UL/79L-79/23.24/0602 (G-7)	29-09-2023	30-09-2023	05-10-2023	2071.56	162006025	28-09-2023	5.4
6	CIMFR(R)/RPSCL/UL/79L-79/23.24/0602 (G-8)	29-09-2023	30-09-2023	05-10-2023	1957.54	162006025	28-09-2023	8.3
7	CIMFR(R)/RPSCL/UL/80L-80/23.24/0603 (G-8)	30-09-2023	30-09-2023	05-10-2023	4025.70	152000175	28-09-2023	8.7
8	CIMFR(R)/RPSCL/UL/81L-81/23.24/0604	30-09-2023	30-09-2023	05-10-2023	4018.70	162008070	28-09-2023	14.9
9	CIMFR(R)/RPSCL/UL/82L-82/23.24/0605	30-09-2023	30-09-2023	05-10-2023	3971.30	162008072	28-09-2023	14.8
10	CIMFR(R)/RPSCL/UL/83L-83/23.24/0606	30-09-2023	01-10-2023	05-10-2023	3994.60	162002906	29-09-2023	14.2
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0607 (G-8)	01-10-2023	01-10-2023	05-10-2023	3444.90	162006028	29.09.23	7.9
12	CIMFR(R)/RPSCL/UL/03L-03/23.24/0609	02-10-2023	02-10-2023	05-10-2023	4006.00	162008086	01.10.23	16.4

* Customer Provided Information

Note

(i) Sample collected as per FSA.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 reaffirmed 2013
(iii) None of the experiments is performed [illegible] provided.
(iv) This report should not be replicated [illegible]
(v) The result related to the sample tested. However part of the sample will be destroyed after [illegible] months.

(Dr. Madhu Jha)
(Authorised Signatory)
CSIR-CIMFR, RC, RANCHI

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI-834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 22.09.2023 TO 07.10.2023

UNLOADING END ANALYSIS REPORT

Date:30-11-2023

Test Report No: CIMFR/RNC/TPS/ROSA UI/SEP-OCT/2023/41
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh
Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -01.11.2023
Product tested - Coal Sample
Relative Humidity of laboratory: 67%
Temperature of laboratory: 25.8°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/61L-61/23.24/0584	22-09-2023	23-09-2023	30-09-2023	4019.80	162002608	20-09-2023	6.2	32.7	4330.78	6.9	32.5	4298	G11
2	CIMFR(R)/RPSCL/UL/04L-04/23.24/0610 (G-8)	02-10-2023	03-10-2023	11-10-2023	1941.62	162006030	01.10.23	2.3	27.3	5500.53	3.6	26.9	5427	G7
3	CIMFR(R)/RPSCL/UL/04L-04/23.24/0610 (G-7)	02-10-2023	03-10-2023	11-10-2023	1805.83			2.8	40.4	4161.28	4.2	39.8	4101	G11
4	CIMFR(R)/RPSCL/UL/05L-05/23.24/0611	02-10-2023	03-10-2023	11-10-2023	3970.60	162000040	01.10.23	5.4	29.4	4647.05	6.9	28.9	4573	G10
5	CIMFR(R)/RPSCL/UL/06L-06/23.24/0612	03-10-2023	03-10-2023	11-10-2023	4073.70	162001755	02.10.23	4.4	39.0	4047.88	6.5	38.1	3959	G12
6	CIMFR(R)/RPSCL/UL/07L-07/23.24/0613	03-10-2023	03-10-2023	11-10-2023	3878.20	162004160	02.10.23	4.2	40.8	3885.88	6.0	40.0	3813	G12
7	CIMFR(R)/RPSCL/UL/08L-08/23.24/0614	07-10-2023	07-10-2023	11-10-2023	3836.60	162008099	06.10.23	2.3	47.9	3669.05	3.0	47.6	3643	G13

* Customer Provided Information
**Grade as per the website of the Ministry of Coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal grades)
Note:
i) Sample collected as per PSA.
ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, the as per IS:1350 (Part-I): 1984 Reaffirmed 2013
iii)Sulphur(%) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).
iv) None of the experiment is performed by external service provider.
v) This report should not be replicated or reproduced.
vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

30/11/2023

(Dr. M.K Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 22.09.2023 TO 07.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date:30-11-2023

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/SEP-OCT/2023/41
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -01.11.2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/61L-61/23.24/0584	22-09-2023	23-09-2023	30-09-2023	4019.80	162002608	20-09-2023	15.3
2	CIMFR(R)/RPSCL/UL/04L-04/23.24/0610 (G-8)	02-10-2023	03-10-2023	11-10-2023	1941.52	162006030	01.10.23	8.9
3	CIMFR(R)/RPSCL/UL/04L-04/23.24/0610 (G-7)	02-10-2023	03-10-2023	11-10-2023	1805.83			10.0
4	CIMFR(R)/RPSCL/UL/05L-05/23.24/0611	02-10-2023	03-10-2023	11-10-2023	3970.50	152000048	01.10.23	16.5
5	CIMFR(R)/RPSCL/UL/06L-06/23.24/0612	03-10-2023	03-10-2023	11-10-2023	4073.70	162001765	02.10.23	14.0
6	CIMFR(R)/RPSCL/UL/07L-07/23.24/0613	03-10-2023	03-10-2023	11-10-2023	3878.20	162004160	02.10.23	14.8
7	CIMFR(R)/RPSCL/UL/08L-08/23.24/0614	07-10-2023	07-10-2023	11-10-2023	3836.50	162008099	06.10.23	15.9

* Customer Provided Information

Note -

(i) Sample collected as per FSA.

(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013

(iii) None of the experiment is performed by external service provider.

(iv) This report should not be replicated or reproduced.

(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

30/11/2023

(Dr. M.K. Saini)
[Authorized Signatory]
CSIR-CIMFR, RC, RANCHI

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 08.10.2023 TO 12.10.2023

UNLOADING END ANALYSIS REPORT

Test Report No.-CIMFR/SNC/TPS/RDSA-UL/OCT/2023/17
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -05.12.2023
Product tested - Coal Sample

Dated: 11-12 2023
Relative Humidity of laboratory: 65%
Temperature of laboratory: 25.0°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/09L-09/23.24/0615	08-10-2023	09-10-2023	16-10-2023	3873.90	162008102	07.10.23	4.5	43.8	3759.91	5.3	43.4	3728	G12
2	CIMFR(R)/RPSCL/UL/10L-10/23.24/0616	09-10-2023	09-10-2023	16-10-2023	4103.70	162001771	07.10.23	6.3	35.3	4188.29	7.5	34.8	4135	G11
3	CIMFR(R)/RPSCL/UL/11L-11/23.24/0617	10-10-2023	11-10-2023	16-10-2023	4063.20	162001773	08.10.23	6.1	38.5	3966.49	7.3	38.0	3916	G12
4	CIMFR(R)/RPSCL/UL/12L-12/23.24/0618	11-10-2023	11-10-2023	16-10-2023	3931.70	162001774	09.10.23	6.3	34.7	4269.07	7.4	34.3	4219	G11
5	CIMFR(R)/RPSCL/UL/13L-13/23.24/0619	12-10-2023	12-10-2023	16-10-2023	3959.10	162000091	10.10.23	6.5	34.2	4279.18	7.9	33.7	4206	G11
6	CIMFR(R)/RPSCL/UL/14L-14/23.24/0620	12-10-2023	12-10-2023	16-10-2023	3984.50	162008129	10.10.23	3.4	47.3	3605.62	4.2	46.9	3576	G13

* Customer Provided Information
** Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades; www.coal.gov.in/major-statistics/coal-grades)

Note:
(i) Sample collected as per ISA.
(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013
(iii) Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following [ASTM D 4239-18].
(iv) None of the experiment is performed by external service provider.
(v) This report should not be replicated or reproduced.
(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

11.12.23
(Dr. Madhu Jha)
[Authorized Signatory]
CSIR-CIMFR, RC, RANCHI

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट-नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 08.10.2023 TO 12.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 11-12-2023

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/OCT/2023/42
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -05.12.2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/09L-09/23.24/0615	08-10-2023	09-10-2023	16-10-2023	3873.90	162008102	07.10.23	16.0
2	CIMFR(R)/RPSCL/UL/10L-10/23.24/0616	09-10-2023	09-10-2023	16-10-2023	4103.70	162001771	07.10.23	12.7
3	CIMFR(R)/RPSCL/UL/11L-11/23.24/0617	10-10-2023	11-10-2023	16-10-2023	4063.20	162001773	08.10.23	12.7
4	CIMFR(R)/RPSCL/UL/12L-12/23.24/0618	11-10-2023	11-10-2023	16-10-2023	3931.70	162001774	09.10.23	13.3
5	CIMFR(R)/RPSCL/UL/13L-13/23.24/0619	12-10-2023	12-10-2023	16-10-2023	3959.10	152000091	10.10.23	13.7
6	CIMFR(R)/RPSCL/UL/14L-14/23.24/0620	12-10-2023	12-10-2023	16-10-2023	3954.60	162008129	10.10.23	14.0

* Customer Provided Information

Note

(i) Sample collected as per FSA.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013
(iii) None of the experiment is performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

11.12.23
(Dr. Madhu Jha)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 01.10.2023 TO 16.10.2023

UNLOADING END ANALYSIS REPORT

Date: 19-12-2023

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/OCT/2023/43
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh
Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -10.11.2023
Product tested - Coal Sample
Relative Humidity of laboratory: 59%
Temperature of laboratory: 24.9°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV - (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/02L-02/23.24/0608	01-10-2023	02-10-2023	05-10-2023	3907.80	162002614	30.09.23	6.2	28.8	4652.79	7.3	28.5	4598	G10
2	CIMFR(R)/RPSCL/UL/15L-15/23.24/0621	12-10-2023	13-10-2023	20-10-2023	3967.10	162008128	10.10.23	2.5	47.7	3658.11	4.1	46.9	3598	G13
3	CIMFR(R)/RPSCL/UL/16L-16/23.24/0622 (G-8)	12-10-2023	13-10-2023	20-10-2023	3825.10	162006044	11.10.23	2.3	33.4	4950.86	4.0	32.6	4865	G9
4	CIMFR(R)/RPSCL/UL/17L-17/23.24/0623 (G-8)	13-10-2023	14-10-2023	20-10-2023	3419.90	162006045	12.10.23	2.9	37.5	4620.56	3.8	36.9	4550	G10
5	CIMFR(R)/RPSCL/UL/18L-18/23.24/0624	13-10-2023	14-10-2023	20-10-2023	4052.20	162001775	11.10.23	5.3	34.6	4333.50	7.6	33.8	4239	G11
6	CIMFR(R)/RPSCL/UL/19L-19/23.24/0625	13-10-2023	14-10-2023	20-10-2023	3876.00	162004164	12.10.23	4.8	43.4	3586.71	6.2	42.8	3534	G13
7	CIMFR(R)/RPSCL/UL/20L-20/23.24/0626 (G-8)	14-10-2023	14-10-2023	20-10-2023	3806.90	162006046	13.10.23	2.3	35.9	4729.74	3.2	35.6	4686	G9
8	CIMFR(R)/RPSCL/UL/21L-21/23.24/0627	14-10-2023	14-10-2023	20-10-2023	3738.50	162001777	12.10.23	5.4	33.8	4422.98	8.7	32.6	4269	G11
9	CIMFR(R)/RPSCL/UL/22L-22/23.24/0628	14-10-2023	15-10-2023	20-10-2023	3935.70	162008183	13.10.23	3.2	51.0	3297.99	4.0	50.6	3251	G14
10	CIMFR(R)/RPSCL/UL/23L-23/23.24/0629	15-10-2023	15-10-2023	20-10-2023	3962.40	152000092	14.10.23	6.1	31.9	4488.63	8.1	31.2	4393	G10
11	CIMFR(R)/RPSCL/UL/24L-24/23.24/0630	15-10-2023	16-10-2023	20-10-2023	3989.10	152000093	14.10.23	6.8	28.9	4734.48	8.8	27.7	4633	G9
12	CIMFR(R)/RPSCL/UL/25L-25/23.24/0631	16-10-2023	16-10-2023	20-10-2023	3977.20	152000088	14.10.23	4.8	41.6	3795.12	6.6	40.8	3723	G12
13	CIMFR(R)/RPSCL/UL/26L-26/23.24/0632	16-10-2023	16-10-2023	20-10-2023	4010.70	152000094	14.10.23	6.5	28.3	4759.54	8.8	27.6	4642	G9
14	CIMFR(R)/RPSCL/UL/27L-27/23.24/0633	16-10-2023	16-10-2023	20-10-2023	3986.00	162002955	15.10.23	4.4	51.2	2938.28	5.8	50.5	2895	G15
15	CIMFR(R)/RPSCL/UL/28L-28/23.24/0634 (G-8)	16-10-2023	17-10-2023	20-10-2023	2110.00	162006050	15.10.23	2.3	29.7	5274.43	3.7	29.3	5199	G8
16	CIMFR(R)/RPSCL/UL/28L-28/23.24/0634 (G-12)	16-10-2023	17-10-2023	20-10-2023	1976.00			2.3	41.2	4260.40	3.5	40.7	4208	G11

* Customer Provided Information
**Grade as per the website of the Ministry of Coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)
Note:
(i) Sample collected as per FSA.
(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, Ult as per IS 1350 (Part-I): 1984 Reaffirmed 2013
(iii)Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).
(iv) None of the experiment is performed by external service provider.
(v) This report should not be replicated or reproduced.
(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

19/12/2023

(Dr. M.R Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट-नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 01.10.2023 TO 16.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 19-12-2023

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/DCT/2023/43
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility Rosa Power Supply Company Limited
Date of start of analysis -18.11.2023
Product tested – Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/02L-02/23.24/0608	01-10-2023	02-10-2023	05-10-2023	3907.00	162002814	30.09.23	16.4
2	CIMFR(R)/RPSCL/UL/15L-15/23.24/0621	12-10-2023	13-10-2023	20-10-2023	3987.10	162008128	10.10.23	13.1
3	CIMFR(R)/RPSCL/UL/16L-16/23.24/0622 (G-8)	12-10-2023	13-10-2023	20-10-2023	3825.30	162006044	11.10.23	8.7
4	CIMFR(R)/RPSCL/UL/17L-17/23.24/0623 (G-8)	13-10-2023	14-10-2023	20-10-2023	3419.90	162006045	12.10.23	7.9
5	CIMFR(R)/RPSCL/UL/18L-18/23.24/0624	13-10-2023	14-10-2023	20-10-2023	4052.20	162001775	11.10.23	13.0
6	CIMFR(R)/RPSCL/UL/19L-19/23.24/0625	13-10-2023	14-10-2023	20-10-2023	3876.00	162004164	12.10.23	13.2
7	CIMFR(R)/RPSCL/UL/20L-20/23.24/0626 (G-8)	14-10-2023	14-10-2023	20-10-2023	3606.90	162006046	13.10.23	8.3
8	CIMFR(R)/RPSCL/UL/21L-21/23.24/0627	14-10-2023	14-10-2023	20-10-2023	3738.80	162001777	12.10.23	13.5
9	CIMFR(R)/RPSCL/UL/22L-22/23.24/0628	14-10-2023	15-10-2023	20-10-2023	3935.70	162008153	13.10.23	12.2
10	CIMFR(R)/RPSCL/UL/23L-23/23.24/0629	15-10-2023	15-10-2023	20-10-2023	3952.40	152000092	14.10.23	14.0
11	CIMFR(R)/RPSCL/UL/24L-24/23.24/0630	15-10-2023	16-10-2023	20-10-2023	3989.10	152000093	14.10.23	14.4
12	CIMFR(R)/RPSCL/UL/25L-25/23.24/0631	16-10-2023	16-10-2023	20-10-2023	3977.20	152000088	14.10.23	13.9
13	CIMFR(R)/RPSCL/UL/26L-26/23.24/0632	16-10-2023	16-10-2023	20-10-2023	4010.70	152000094	14.10.23	14.7
14	CIMFR(R)/RPSCL/UL/27L-27/23.24/0633	16-10-2023	16-10-2023	20-10-2023	3986.00	162002953	15.10.23	13.7
15	CIMFR(R)/RPSCL/UL/28L-28/23.24/0634 (G-8)	16-10-2023	17-10-2023	20-10-2023	2110.00	162006050	15.10.23	8.1
16	CIMFR(R)/RPSCL/UL/28L-28/23.24/0634 (G-12)	16-10-2023	17-10-2023	20-10-2023	1976.00			7.5

* Customer Provided Information

Note

(i) Sample collected as per ISO.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013
(iii) None of the experiment is performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

19/12/2023

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 17.10.2023 TO 22.10.2023

UNLOADING END ANALYSIS REPORT

Test Report No. -CIMFR/RNC/TPS/ROSA-UL/OCT/2023/44 | Power Utility - Rosa Power Supply Company Limited | Date: 26-12-2023

Name of Coal Company-Central Coal Field Ltd. | Date of start of analysis - 18.12.2023

Unloading Area/Siding-RPSCL, Shahjahanpur Uttar Pradesh | Product tested - Coal Sample | Relative Humidity of laboratory: 54% | Temperature of laboratory: 23.7°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR*			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Nota No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/29L-29/23.24/0635	17-10-2023	18-10-2023	26-10-2023	3886.70	152001782	16.10.23	5.7	31.4	4552.70	7.6	30.8	4461	G10
2	CIMFR(R)/RPSCL/UL/30L-30/23.24/0636	18-10-2023	18-10-2023	26-10-2023	3939.10	152001781	15.10.23	5.9	29.0	4736.48	8.0	28.4	4631	G9
3	CIMFR(R)/RPSCL/UL/31L-31/23.24/0637 (G-8)	18-10-2023	19-10-2023	26-10-2023	3504.30	152006051	18.10.23	2.5	31.3	5142.70	3.6	30.9	5085	G8
4	CIMFR(R)/RPSCL/UL/32L-32/23.24/0638	18-10-2023	19-10-2023	26-10-2023	3948.60	152008178	17.10.23	3.0	45.7	3844.75	4.5	45.0	3785	G12
5	CIMFR(R)/RPSCL/UL/33L-33/23.24/0639	19-10-2023	20-10-2023	26-10-2023	3996.40	152001784	17.10.23	6.2	31.0	4592.27	8.4	30.3	4485	G10
6	CIMFR(R)/RPSCL/UL/34L-34/23.24/0640 (G-8)	20-10-2023	20-10-2023	26-10-2023	3808.10	152006054	17.10.23	2.8	36.2	5034.69	3.8	35.8	4983	G8
7	CIMFR(R)/RPSCL/UL/35L-35/23.24/0641	20-10-2023	20-10-2023	26-10-2023	3861.00	152000089	18.10.23	5.0	42.1	3800.05	7.0	41.2	3720	G12
8	CIMFR(R)/RPSCL/UL/36L-36/23.24/0642	20-10-2023	21-10-2023	26-10-2023	3818.20	152001788	18.10.23	6.0	33.5	4483.96	8.0	32.8	4359	G10
9	CIMFR(R)/RPSCL/UL/37L-37/23.24/0643 (G-12)	20-10-2023	21-10-2023	26-10-2023	1972.00	152006176	18.10.23	2.4	37.4	4636.77	3.6	36.9	4580	G10
10	CIMFR(R)/RPSCL/UL/38L-38/23.24/0644 (G-12)	20-10-2023	21-10-2023	26-10-2023	1832.09	152006177	19.10.23	2.4	31.3	5199.15	3.3	31.0	5151	G8
11	CIMFR(R)/RPSCL/UL/39L-39/23.24/0645	21-10-2023	21-10-2023	26-10-2023	4072.20	152001787	19.10.23	6.2	30.2	4676.58	8.6	29.4	4557	G10
12	CIMFR(R)/RPSCL/UL/40L-40/23.24/0646	21-10-2023	22-10-2023	26-10-2023	4026.70	152008198	20.10.23	3.0	45.8	3808.82	3.8	45.4	3777	G12
13	CIMFR(R)/RPSCL/UL/41L-41/23.24/0647 (G-5)	22-10-2023	22-10-2023	26-10-2023	2080.81	152006056	19.10.23	2.5	26.7	5619.15	3.8	26.3	5544	G6
14	CIMFR(R)/RPSCL/UL/41L-41/23.24/0647 (G-12)	22-10-2023	22-10-2023	26-10-2023	1942.44			2.9	37.5	4835.59	3.9	37.1	4588	G10
15	CIMFR(R)/RPSCL/UL/42L-42/23.24/0648	22-10-2023	22-10-2023	26-10-2023	3796.30	152001789	20.10.23	6.5	29.0	4761.58	8.7	28.3	4650	G9
16	CIMFR(R)/RPSCL/UL/43L-43/23.24/0649 (G-5)	22-10-2023	23-10-2023	26-10-2023	2783.68	152006059	20.10.23	3.2	40.9	4255.73	4.2	40.5	4212	G11
17	CIMFR(R)/RPSCL/UL/43L-43/23.24/0649 (G-12)	22-10-2023	23-10-2023	26-10-2023	748.42			2.7	31.4	5107.11	4.1	30.9	5034	G8
18	CIMFR(R)/RPSCL/UL/44L-44/23.24/0650	22-10-2023	23-10-2023	26-10-2023	3913.80	152000095	21.10.23	6.3	26.4	4917.91	8.8	25.7	4787	G9

* Customer Provided Information

**Grade as per the website of the Ministry of Coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note:

(i) Sample collected as per FSA.

(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EN as per IS 1353 (Part-I): 1984 Reaffirmed 2013

(iii) Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).

(iv) None of the experiment is performed by external service provider.

(v) This report should not be replicated or reproduced.

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED - LUCKNOW

26/12/2023

(Dr. M.K Sahu)
(Authorised Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 17.10.2023 TO 22.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 26-12-2023

Test Report No: CIMFR/RNC/TMS/ROSA-UL/OCT/2023/44
Name of Coal Company: Central Coal Field Ltd.
Unloading Area/Siding: RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility: Rosa Power Supply Company Limited
Date of start of analysis: 18.12.2023
Product tested : Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/29L-29/23.24/0635	17-10-2023	18-10-2023	26-10-2023	3866.70	152001782	18.10.23	15.6
2	CIMFR(R)/RPSCL/UL/30L-30/23.24/0636	18-10-2023	18-10-2023	26-10-2023	3939.10	152001781	15.10.23	14.8
3	CIMFR(R)/RPSCL/UL/31L-31/23.24/0637 (G-8)	18-10-2023	19-10-2023	26-10-2023	3504.30	152006051	18.10.23	7.7
4	CIMFR(R)/RPSCL/UL/32L-32/23.24/0638	18-10-2023	19-10-2023	26-10-2023	3946.60	152000178	17.10.23	15.6
5	CIMFR(R)/RPSCL/UL/33L-33/23.24/0639	19-10-2023	20-10-2023	26-10-2023	3898.40	152001784	17.10.23	16.4
6	CIMFR(R)/RPSCL/UL/34L-34/23.24/0640 (G-8)	20-10-2023	20-10-2023	26-10-2023	3808.10	152006054	17.10.23	8.0
7	CIMFR(R)/RPSCL/UL/35L-35/23.24/0641	20-10-2023	20-10-2023	26-10-2023	3981.00	152000089	18.10.23	13.8
8	CIMFR(R)/RPSCL/UL/36L-36/23.24/0642	20-10-2023	21-10-2023	26-10-2023	3816.20	152001788	18.10.23	14.9
9	CIMFR(R)/RPSCL/UL/37L-37/23.24/0643 (G-12)	20-10-2023	21-10-2023	26-10-2023	1972.00	152000176	18.10.23	6.8
10	CIMFR(R)/RPSCL/UL/38L-38/23.24/0644 (G-12)	20-10-2023	21-10-2023	26-10-2023	1832.09	152000177	19.10.23	6.4
11	CIMFR(R)/RPSCL/UL/39L-39/23.24/0645	21-10-2023	21-10-2023	26-10-2023	4072.20	152001787	19.10.23	17.5
12	CIMFR(R)/RPSCL/UL/40L-40/23.24/0646	21-10-2023	22-10-2023	26-10-2023	4028.70	152006186	20.10.23	16.3
13	CIMFR(R)/RPSCL/UL/41L-41/23.24/0647 (G-5)	22-10-2023	22-10-2023	26-10-2023	2080.81	152006058	19.10.23	7.7
14	CIMFR(R)/RPSCL/UL/41L-41/23.24/0647 (G-12)	22-10-2023	22-10-2023	26-10-2023	1942.44			7.6
15	CIMFR(R)/RPSCL/UL/42L-42/23.24/0648	22-10-2023	22-10-2023	26-10-2023	3795.30	152001789	20.10.23	17.1
16	CIMFR(R)/RPSCL/UL/43L-43/23.24/0649 (G-5)	22-10-2023	23-10-2023	26-10-2023	2763.68	152006059	20.10.23	8.6
17	CIMFR(R)/RPSCL/UL/43L-43/23.24/0649 (G-12)	22-10-2023	23-10-2023	26-10-2023	748.42			8.4
18	CIMFR(R)/RPSCL/UL/44L-44/23.24/0650	22-10-2023	23-10-2023	26-10-2023	3813.80	152000095	21.10.23	17.7

* Customer Provided Information

Note

(i) Sample collected as per ISA.

(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 reaffirmed 2013

(iii) None of the experiment is performed by external service provider.

(iv) This report should not be replicated or reproduced.

(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

26/12/2023

(Dr. M.K. Saini)
(Authorised Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 23.10.2023 TO 28.10.2023

UNLOADING END ANALYSIS REPORT

Test Report No.-CIMFR/RRC/TPS/ROSA-UE/OCT/2023/45
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -28.12.2023
Product tested - Coal Sample

Date: 08-01-2024

Relative Humidity of laboratory: 70%
Temperature of laboratory: 22.6°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (MT)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/45L-45/23.24/0651	23-10-2023	24-10-2023	01-11-2023	3680.80	162001791	21.10.23	8.8	30.9	4431.54	8.9	30.3	4427	G10
2	CIMFR(R)/RPSCL/UL/46L-46/23.24/0652 (G-5)	23-10-2023	24-10-2023	01-11-2023	2748.27	162004061	21.10.23	3.3	29.1	5329.55	3.5	29.0	5319	G7
3	CIMFR(R)/RPSCL/UL/47L-47/23.24/0653 (G-5)	24-10-2023	25-10-2023	01-11-2023	2773.68	162004063	22.10.23	3.2	31.7	5077.25	3.8	31.5	5046	G8
4	CIMFR(R)/RPSCL/UL/47L-47/23.24/0653 (G-8)	24-10-2023	25-10-2023	01-11-2023	1303.02			3.9	34.7	4647.83	4.4	34.5	4624	G9
5	CIMFR(R)/RPSCL/UL/48L-48/23.24/0654	24-10-2023	25-10-2023	01-11-2023	3936.80	162001794	22.10.23	8.0	28.4	4597.76	8.5	28.2	4573	G10
6	CIMFR(R)/RPSCL/UL/49L-49/23.24/0655	24-10-2023	25-10-2023	01-11-2023	3777.90	162004108	23.10.23	6.0	40.6	3714.67	7.0	40.3	3675	G13
7	CIMFR(R)/RPSCL/UL/50L-50/23.24/0656	25-10-2023	26-10-2023	01-11-2023	3947.90	162008226	24.10.23	5.9	36.3	4307.81	5.2	36.6	4340	G10
8	CIMFR(R)/RPSCL/UL/51L-51/23.24/0657	27-10-2023	28-10-2023	01-11-2023	3964.00	162008236	26.10.23	5.2	39.0	4134.26	5.1	39.0	4139	G11
9	CIMFR(R)/RPSCL/UL/52L-52/23.24/0658	27-10-2023	28-10-2023	01-11-2023	4014.20	162008232	26.10.23	4.8	41.6	3946.56	4.7	41.6	3951	G12
10	CIMFR(R)/RPSCL/UL/53L-53/23.24/0659 (G-5)	28-10-2023	28-10-2023	01-11-2023	2064.05	162006067	26.10.23	3.5	27.1	5457.97	3.7	27.0	5447	G7
11	CIMFR(R)/RPSCL/UL/53L-53/23.24/0659 (G-8)	28-10-2023	28-10-2023	01-11-2023	1905.95			3.6	33.3	4849.30	3.8	33.2	4839	G9
12	CIMFR(R)/RPSCL/UL/54L-54/23.24/0660	28-10-2023	29-10-2023	01-11-2023	3813.90	162004169	27.10.23	6.5	41.0	3664.19	6.9	40.8	3649	G13
13	CIMFR(R)/RPSCL/UL/55L-55/23.24/0661	28-10-2023	29-10-2023	01-11-2023	3832.20	162006096	27.10.23	8.1	30.3	4494.90	8.4	30.2	4480	G10

* Customer Provided Information
**Grade as per the website of the Ministry of coal (www.coal.nic.in/en/major-statistics/coal-grades), www.coal.gov.in/major-statistics/coal-grades)
Note:
(i) Sample collected as per ISA.
(ii) Testing Method followed:- Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013
(iii) Sulphur(%) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).
(iv) None of the experiment is performed by external service provider.
(v) This report should not be replicated or reproduced.
(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three month.

(Dr. M.K Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

LUCKNOW

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 23.10.2023 TO 28.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 08-01-2024

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/OCT/2023/45
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -28.12.2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/45L-45/23.24/0651	23-10-2023	24-10-2023	01-11-2023	3660.80	162001791	21.10.23	14.1
2	CIMFR(R)/RPSCL/UL/46L-46/23.24/0652 (G-5)	23-10-2023	24-10-2023	01-11-2023	2748.27	162006061	21.10.23	8.5
3	CIMFR(R)/RPSCL/UL/47L-47/23.24/0653 (G-5)	24-10-2023	25-10-2023	01-11-2023	2773.68	162006063	22.10.23	8.4
4	CIMFR(R)/RPSCL/UL/47L-47/23.24/0653 (G-8)	24-10-2023	25-10-2023	01-11-2023	1303.02			8.4
5	CIMFR(R)/RPSCL/UL/48L-48/23.24/0654	24-10-2023	25-10-2023	01-11-2023	3936.80	162001794	22.10.23	15.1
6	CIMFR(R)/RPSCL/UL/49L-49/23.24/0655	24-10-2023	25-10-2023	01-11-2023	3777.00	162004168	23.10.23	13.6
7	CIMFR(R)/RPSCL/UL/50L-50/23.24/0656	25-10-2023	26-10-2023	01-11-2023	3947.90	162008226	24.10.23	15.0
8	CIMFR(R)/RPSCL/UL/51L-51/23.24/0657	27-10-2023	28-10-2023	01-11-2023	3964.00	162008236	26.10.23	17.0
9	CIMFR(R)/RPSCL/UL/52L-52/23.24/0658	27-10-2023	28-10-2023	01-11-2023	4014.20	152000232	26.10.23	8.3
10	CIMFR(R)/RPSCL/UL/53L-53/23.24/0659 (G-5)	28-10-2023	28-10-2023	01-11-2023	2064.05	162006067	26.10.23	8.9
11	CIMFR(R)/RPSCL/UL/53L-53/23.24/0659 (G-8)	28-10-2023	28-10-2023	01-11-2023	1905.95			8.8
12	CIMFR(R)/RPSCL/UL/54L-54/23.24/0660	28-10-2023	29-10-2023	01-11-2023	3813.90	162004169	27.10.23	14.6
13	CIMFR(R)/RPSCL/UL/55L-55/23.24/0661	28-10-2023	29-10-2023	01-11-2023	3832.20	152000096	27.10.23	15.2

* Customer Provided Information

Note

(i) Sample collected as per ESA.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I); 1984 Reaffirmed 2013
(iii) None of the experiment is performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 29.10.2023 TO 03.11.2023

UNLOADING END ANALYSIS REPORT

Date: 11-01-2024

Test Report No.-CIMFR/RNC/TPS/ROSA UL/OCT-NOV/2023/46
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh
Power Utility- Rosa Power Supply Company Limited
Date of start of analysis-01.01.2024
Product tested - Coal Sample
Relative Humidity of laboratory: 65%
Temperature of laboratory: 22.3°C

Sl. No.	Sample ID.	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (MT)	R.R.No./ P. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	MS%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/56L-56/23.24/0665 (G-5)	29-10-2023	30-10-2023	06-11-2023	2735.71	162000178	28.10.23	5.2	30.8	5139.96	5.0	30.7	5102	G6
2	CIMFR(R)/RPSCL/UL/56L-56/23.24/0665 (G-12)	29-10-2023	30-10-2023	06-11-2023	1246.37			3.0	39.8	4647.55	4.3	39.7	4634	G10
3	CIMFR(R)/RPSCL/UL/57L-57/23.24/0663	29-10-2023	30-10-2023	06-11-2023	3781.40	162001802	28.10.23	7.8	29.4	4556.79	8.0	29.3	4547	G10
4	CIMFR(R)/RPSCL/UL/58L-58/23.24/0664	29-10-2023	30-10-2023	06-11-2023	3778.80	162004170	28.10.23	6.0	39.5	3837.72	6.1	39.5	3834	G12
5	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-5)	30-10-2023	31-10-2023	06-11-2023	1925.31	162000070	29.10.23	3.0	27.5	5439.50	3.3	27.4	5423	G7
6	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-12)	30-10-2023	31-10-2023	06-11-2023	1733.96			3.0	34.4	4848.82	3.4	34.3	4825	G9
7	CIMFR(R)/RPSCL/UL/60L-60/23.24/0666	30-10-2023	31-10-2023	06-11-2023	3970.20	162001804	28.10.23	7.8	30.1	4495.12	8.6	29.8	4456	G10
8	CIMFR(R)/RPSCL/UL/61L-61/23.24/0667	30-10-2023	31-10-2023	06-11-2023	3995.60	162000063	29.10.23	5.4	43.9	3512.37	6.1	43.6	3486	G13
9	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-5)	31-10-2023	01-11-2023	06-11-2023	2056.07	162036972	30.10.23	3.5	17.8	6343.51	4.1	17.7	6304	G1
10	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-8)	31-10-2023	01-11-2023	06-11-2023	1912.73			2.7	41.7	4203.47	3.2	41.5	4182	G11
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0669	01-11-2023	01-11-2023	06-11-2023	3878.20	162001906	30.10.23	7.1	38.5	4197.47	8.0	38.2	4157	G11
12	CIMFR(R)/RPSCL/UL/02L-02/23.24/0670	01-11-2023	01-11-2023	06-11-2023	4001.00	162000090	31.10.23	6.1	41.4	3650.16	6.8	41.1	3623	G13
13	CIMFR(R)/RPSCL/UL/03L-03/23.24/0671	01-11-2023	01-11-2023	06-11-2023	3962.80	162000288	30.10.23	4.2	46.1	3600.08	4.2	46.1	3600	G13
14	CIMFR(R)/RPSCL/UL/04L-04/23.24/0672	01-11-2023	02-11-2023	06-11-2023	4001.10	162000233	30.10.23	4.1	51.9	3151.06	4.1	51.9	3151	G14
15	CIMFR(R)/RPSCL/UL/05L-05/23.24/0673	01-11-2023	02-11-2023	06-11-2023	3837.58	162001807	30.10.23	7.2	37.2	3963.26	7.8	37.0	3938	G12
16	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-5)	01-11-2023	02-11-2023	06-11-2023	2048.14	162000078	31.10.23	3.3	28.0	5465.90	4.1	27.8	5423	G7
17	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-12)	01-11-2023	02-11-2023	06-11-2023	1931.95			3.5	25.2	5564.66	3.7	25.2	5559	G6
18	CIMFR(R)/RPSCL/UL/07L-07/23.24/0675	02-11-2023	02-11-2023	06-11-2023	4002.50	162000289	31.10.23	4.3	46.0	3615.64	4.1	46.1	3623	G13
19	CIMFR(R)/RPSCL/UL/01L-01/23.24/0676	02-11-2023	03-11-2023	06-11-2023	3821.80	162000450	01.11.23	6.1	40.8	3692.66	6.5	40.6	3677	G13
20	CIMFR(R)/RPSCL/UL/02L-02/23.24/0677	03-11-2023	03-11-2023	06-11-2023	4087.00	162000166	01.11.23	8.0	20.4	5161.60	8.2	20.4	5150	G8

* Customer Provided Information
**Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades).
Note:
(i) Sample collected as per FSA
(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013
(iii) Sulphur(S) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).
(iv) None of the experiment is performed by external service provider).
(v) This report should not be replicated or reproduced.
(vi) The result relates to the sample tested. Reserve part of the sample will be destroyed after three months.

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
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CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 29.10.2023 TO 03.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 11-01-2024

Test Report No.-CIMFR/RNC/TPS/ROSA UL/OCT-NOV/2023/46
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding: ROSA, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -01.01.2024
Product tested - Coal Sample

Sl. No	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ E. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/56L-56/23.24/0662 (G-5)	29-10-2023	30-10-2023	06-11-2023	2735.21	152000178	28.10.23	10.6
2	CIMFR(R)/RPSCL/UL/56L-56/23.24/0662 (G-12)	29-10-2023	30-10-2023	06-11-2023	1245.37			7.0
3	CIMFR(R)/RPSCL/UL/57L-57/23.24/0663	29-10-2023	30-10-2023	06-11-2023	3781.40	162001802	28.10.23	14.4
4	CIMFR(R)/RPSCL/UL/58L-58/23.24/0664	29-10-2023	30-10-2023	06-11-2023	3778.80	162004170	28.10.23	13.6
5	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-5)	30-10-2023	31-10-2023	06-11-2023	1926.31	162006070	29.10.23	7.7
6	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-12)	30-10-2023	31-10-2023	06-11-2023	1733.95			8.0
7	CIMFR(R)/RPSCL/UL/60L-60/23.24/0666	30-10-2023	31-10-2023	06-11-2023	3970.20	162001804	28.10.23	18.8
8	CIMFR(R)/RPSCL/UL/61L-61/23.24/0667	30-10-2023	31-10-2023	06-11-2023	3995.60	162000063	29.10.23	11.8
9	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-5)	31-10-2023	01-11-2023	06-11-2023	2056.07	162006072	30.10.23	8.1
10	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-8)	31-10-2023	01-11-2023	06-11-2023	1912.73			9.2
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0669	01-11-2023	01-11-2023	06-11-2023	3970.20	162001806	30.10.23	15.8
12	CIMFR(R)/RPSCL/UL/02L-02/23.24/0670	01-11-2023	01-11-2023	06-11-2023	4001.00	152000090	31.10.23	14.2
13	CIMFR(R)/RPSCL/UL/03L-03/23.24/0671	01-11-2023	01-11-2023	06-11-2023	3962.60	162000268	30.10.23	17.8
14	CIMFR(R)/RPSCL/UL/04L-04/23.24/0672	01-11-2023	02-11-2023	06-11-2023	4001.10	152000233	30.10.23	16.9
15	CIMFR(R)/RPSCL/UL/05L-05/23.24/0673	01-11-2023	02-11-2023	06-11-2023	3837.80	162001807	30.10.23	16.1
16	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-5)	01-11-2023	02-11-2023	06-11-2023	2048.14	162006078	31.10.23	10.4
17	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-12)	01-11-2023	02-11-2023	06-11-2023	1931.98			10.3
18	CIMFR(R)/RPSCL/UL/07L-07/23.24/0675	02-11-2023	02-11-2023	06-11-2023	4003.50	162000289	31.10.23	15.3
19	CIMFR(R)/RPSCL/UL/01L-01/23.24/0676	02-11-2023	03-11-2023	06-11-2023	3821.80	142000460	01.11.23	11.2
20	CIMFR(R)/RPSCL/UL/02L-02/23.24/0677	03-11-2023	03-11-2023	06-11-2023	4087.00	142000166	01.11.23	16.4

* Customer Provided Information

Note:
(i) Sample collection as per FGR.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part I) 1984 Reaffirmed 2013
(iii) None of the recommendations persuaded by external vendors or outside
(iv) This report should not be modified or reproduced.
(v) The result related to the sample tested. Retention part of the sample will be maintained only three months.

(Dr. M.K. Saini)
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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 20.10.2023 TO 08.11.2023

UNLOADING END ANALYSIS REPORT

Date: 25-01-2024

Test Report No -CIMFR/RNC/TPS/RSCL-UL/OCT-NOV/2023/47 | Power Utility- Rosa Power Supply Company Limited | Relative Humidity of laboratory: 54%

Name of Coal Company-Central Coalfields Ltd. | Date of start of analysis -18-12-2023 | Temperature of laboratory: 21.7°C

Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/37L-37/23.24/0643 (G-8)	20-10-2023	21-10-2023	26-10-2023	2110.00	152000176	18.10.23	2.6	34.5	4938.40	3.4	34.2	4858	G9
2	CIMFR(R)/RPSCL/UL/46L-46/23.24/0652 (G-10)	23-10-2023	24-10-2023	01-11-2023	1247.03	162006061	21.10.23	3.5	29.7	5215.98	3.8	29.6	5200	G8
3	CIMFR(R)/RPSCL/UL/03L-03/23.24/0678	03-11-2023	04-11-2023	10.11.2023	4038.80	162008283	02.11.23	3.2	42.7	4007.55	4.4	42.2	3958	G12
4	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-5)	04-11-2023	04-11-2023	10.11.2023	2794.81	162008078	02.11.23	2.1	30.0	5285.53	3.2	29.7	5226	G7
5	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-12)	04-11-2023	04-11-2023	10.11.2023	1264.00			2.3	27.9	5437.72	3.6	27.5	5360	G7
6	CIMFR(R)/RPSCL/UL/05L-05/23.24/0680	04-11-2023	04-11-2023	10.11.2023	4087.80	162001813	02.11.23	4.4	40.6	3904.59	6.9	39.5	3802	G12
7	CIMFR(R)/RPSCL/UL/07L-07/23.24/0682	05-11-2023	05-11-2023	10.11.2023	4072.20	162003041	03.11.23	3.7	47.6	3323.72	5.6	46.7	3258	G14
8	CIMFR(R)/RPSCL/UL/08L-08/23.24/0683	05-11-2023	05-11-2023	10.11.2023	4091.50	162007135	03.11.23	4.5	40.0	3908.70	6.6	39.1	3822	G12
9	CIMFR(R)/RPSCL/UL/09L-09/23.24/0684	05-11-2023	06-11-2023	10.11.2023	3959.90	162001816	03.11.23	4.5	42.5	3712.09	6.7	41.5	3627	G13
10	CIMFR(R)/RPSCL/UL/10L-10/23.24/0685	05-11-2023	07-11-2023	10.11.2023	3730.00	162007138	04.11.23	4.0	46.1	3480.71	5.5	45.4	3948	G14
11	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-5)	06-11-2023	07-11-2023	10.11.2023	2038.07	162006080	04.11.23	2.2	23.0	5851.32	3.6	22.7	5768	G6
12	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-8)	06-11-2023	07-11-2023	10.11.2023	2026.93			2.1	37.1	4522.48	3.5	36.6	4556	G10
13	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-5)	06-11-2023	07-11-2023	10.11.2023	2104.20	162006082	05.11.23	1.8	33.3	5053.58	3.0	32.9	3892	G8
14	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-12)	06-11-2023	07-11-2023	10.11.2023	1972.00			2.2	37.2	4591.34	3.4	36.7	4535	G10
15	CIMFR(R)/RPSCL/UL/13L-13/23.24/0688	06-11-2023	07-11-2023	10.11.2023	3995.50	162008303	05.11.23	2.9	46.7	3816.17	4.2	46.1	3558	G13
16	CIMFR(R)/RPSCL/UL/14L-14/23.24/0689	06-11-2023	07-11-2023	10.11.2023	4004.20	162007137	05.11.23	4.0	39.7	3962.54	5.6	39.0	3856	G12
17	CIMFR(R)/RPSCL/UL/15L-15/23.24/0690	07-11-2023	07-11-2023	10.11.2023	4006.40	162008307	05.11.23	3.2	37.9	4349.35	5.8	36.9	4243	G11
18	CIMFR(R)/RPSCL/UL/16L-16/23.24/0691	07-11-2023	07-11-2023	10.11.2023	3999.50	162001820	05.11.23	4.6	36.0	4241.58	7.8	34.8	4093	G11
19	CIMFR(R)/RPSCL/UL/17L-17/23.24/0692	08-11-2023	08-11-2023	10.11.2023	3994.60	162008316	05.11.23	3.3	39.5	4219.61	5.5	38.6	4124	G11

* Customer Provided Information

**Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note:

(i) Sample collected as per ISA.

(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582, IS:8, GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013.

(iii) Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).

(iv) None of the experiment is performed by external service provider.

(v) This report should not be replicated or reproduced

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
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RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 20.10.2023 TO 08.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 25-01-2024

Test Report No.-CIMFR/RNC/TPS/ROSA/UL/OCT-NOV/2023/47
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis-18-11-2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ E. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/37L-37/23.24/0643 (G-8)	20-10-2023	21-10-2023	26-10-2023	2119.00	162000176	18.10.23	8.9
2	CIMFR(R)/RPSCL/UL/46L-46/23.24/0652 (G-10)	23-10-2023	24-10-2023	01-11-2023	1247.03	162006081	21.10.23	7.7
3	CIMFR(R)/RPSCL/UL/03L-03/23.24/0678	03-11-2023	04-11-2023	10.11.2023	4038.80	162008283	02.11.23	14.9
4	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-5)	04-11-2023	04-11-2023	10.11.2023	2794.81	162006078	02.11.23	7.7
5	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-12)	04-11-2023	04-11-2023	10.11.2023	1264.00			9.1
6	CIMFR(R)/RPSCL/UL/05L-05/23.24/0680	04-11-2023	04-11-2023	10.11.2023	4087.80	162001813	02.11.23	14.6
7	CIMFR(R)/RPSCL/UL/07L-07/23.24/0682	05-11-2023	05-11-2023	10.11.2023	4072.20	162003041	03.11.23	12.9
8	CIMFR(R)/RPSCL/UL/08L-08/23.24/0683	05-11-2023	05-11-2023	10.11.2023	4001.50	162007135	03.11.23	13.3
9	CIMFR(R)/RPSCL/UL/09L-09/23.24/0684	05-11-2023	06-11-2023	10.11.2023	3958.90	162001816	03.11.23	11.5
10	CIMFR(R)/RPSCL/UL/10L-10/23.24/0685	05-11-2023	07-11-2023	10.11.2023	3730.00	162007136	04.11.23	9.2
11	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-5)	06-11-2023	07-11-2023	10.11.2023	2038.07	162006080	04.11.23	11.5
12	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-8)	06-11-2023	07-11-2023	10.11.2023	2026.93			12.3
13	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-5)	06-11-2023	07-11-2023	10.11.2023	2104.20	162006082	05.11.23	9.3
14	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-12)	06-11-2023	07-11-2023	10.11.2023	1972.00			9.4
15	CIMFR(R)/RPSCL/UL/13L-13/23.24/0688	06-11-2023	07-11-2023	10.11.2023	3998.50	162008303	05.11.23	19.4
16	CIMFR(R)/RPSCL/UL/14L-14/23.24/0689	06-11-2023	07-11-2023	10.11.2023	4004.20	162007137	05.11.23	10.3
17	CIMFR(R)/RPSCL/UL/15L-15/23.24/0690	07-11-2023	07-11-2023	10.11.2023	4006.40	162008307	05.11.23	15.9
18	CIMFR(R)/RPSCL/UL/16L-16/23.24/0691	07-11-2023	07-11-2023	10.11.2023	3999.50	162001820	05.11.23	17.2
19	CIMFR(R)/RPSCL/UL/17L-17/23.24/0692	08-11-2023	08-11-2023	10.11.2023	3994.60	162008316	08.11.23	16.2

* Customer Provided Information

Note

(i) Sample collected as per ISO.

(ii) Testing Method followed - Total Moisture as per IS 1350 (Part I), 1984 Reaffirmed 2019

(iii) None of the experiment is performed by external service provider.

(iv) This report should not be reproduced or reproduced

(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

25/01/2024

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST -NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 20.10.2023

UNLOADING END ANALYSIS REPORT

Test Report No. CIMFR/RNC/TR/ROSA-UL/OCT/2023/50 | Power Utility- Rosa Power Supply Company Limited | Date:15-02-2024

Name of Coal Company Central Coal Field Ltd. | Date of start of analysis -23.12.2023

Unloading Area/Siding RPSC1, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample | Relative Humidity of laboratory: 57% | Temperature of laboratory: 23.9°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSC1/UL/TRL 38/23.24/0644 (G-5)	20-10-2023	21-10-2023	26-10-2023	1927.16	152000177	19.10.23	2.2	37.7	4653.47	3.4	37.2	4596	G10

* Customer Provided Information
** Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note-
(i) Sample collected as per ISA
(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013
(iii) Sulphur (S) value has been put in the Bomb Calorimeter as determined in the laboratory following (ASTM D 4239-18).
(iv) None of the experiment is performed by external service provider.
(v) This report should not be replicated or reproduced.
(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

(Dr. M K Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 20.10.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date:15-02-2024

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/OCT/2023/50
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -23.12.2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/38L-38/23.24/0644 (G-5)	20-10-2023	21-10-2023	26-10-2023	1927.16	152000177	19.10.23	5.9

* Customer Provided Information

Note

(i) Sample collected as per FSA.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013
(iii) None of the experiment is performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

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Details of Variable Charges Payable by UPPCL During The Billing Period				
	Description	Units	Value	Source
1	Total Schedule Energy for the Station	kWh	488,130,480	Annexure 3
2	Revised Energy Charge Rate as per GCV calculated from CIMFR Values	Rs/ kWh	3.235	Table: Energy Charge Calculation
3	**Total billing Charges Recoverable for the Billing Period**	(Rs)	**1,579,102,103**	
4	Total Variable Charges already recovered	(Rs)	1,573,732,668	Ref No. - Rosa TPP/2023-24/Invoice/08
5	Total Variable Charges billed to UPPCL for the Billing Period	(Rs)	**5,369,435**	

Energy Charge Calculation					
	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.28115	
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	488130480	
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3557	
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.39	
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.08220532	
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.235	

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of November'2023 with revised GCV as per CIMFR report

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	4,874.17	-	
b	Coal Opening Rate for the month	Rs/tonne	4,476.34	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	354,303.57	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	351,469.14	-	-
c	Landed Cost of coal	Rs/tonne	4,117.01	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	127.20	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,244.21	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,278.44	-	-
g	Average Price of Coal Received	Rs/tonne			4,278.44
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		356,343.31	-	
b	Average Price of Coal in Stock	Rs/tonne	4,281.15	-	
c	Total Coal Consumed during the month	MT	329,992	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,281.15	
e	Coal Closing Quantity for the month	MT	26,351.31	-	
f	Coal Closing Rate for the month	Rs/tonne	4,281.15	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,936		
b	GCV of coal receipt during the month	kCal/Kg	3,638		
c	Weighted Average GCV of coal	kCal/Kg			3,642
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,557

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	285.666		
2	Value of the opening stock	Rs.	23,483,264.65		
3	Landed cost of Oil (Including Transportation charges)	Rs.			
4	Quantity supplied by oil company	KL			
5	Weighted average per unit secondary fuel cost	Rs./ml			0.08220532
6	GCV of Oil for the opening stock	kCal/ml	9.3906		
7	Weighted average GCV of oil as received	kCal/ml			
8	Weighted average GCV of oil	kCal/ml			9.3906

Authorised Signatory

RPSCL ROSA LAB RESULTS															
RAKE COAL RESULTS Nov 2023									ADB	ARB	Equilibrium Moisture	Equilibrated Ash (60% RH & 40 Temp.)	Equilibrated GCV (60% RH & 40 Temp.)	ARB
Date of Receipt	Rake No.	CIMFR Sample ID	COAL SIDING	CMPA No.	GCV (M/D)	Desired Grade	Magma Grade	ARB GCV	IM	TM				GCV
								Kcal/kg	%	%	%	%	Kcal/Kg	Kcal/kg
02.11.23	1	CIMFR (R) RPSCL/UL/23-24/01-L-01/0676	CCSR	142000450	3821.80	-	-	3500	6.10	11.2	6.5	40.6	3677	3492
02.11.23	2	CIMFR (R) RPSCL/UL/23-24/02-L-02/0677	DCSK	142000166	4087.00	-	-	4577	8.00	18.4	8.2	20.4	5150	4690
03.11.23	3	CIMFR (R) RPSCL/UL/23-24/03-L-03/0678	SLSP	162008263	4036.80	-	-	3516	3.20	14.9	4.4	42.2	3958	3523
04.11.23	4	CIMFR (R) RPSCL/UL/23-24/04-L-04/0679	BSDC	162006078	4058.80	G-5	40	4975	2.10	7.7	3.2	29.7	5226	4983
						G-12	18	5085	2.30	9.1	3.6	27.5	5360	5054
04.11.23	5	CIMFR (R) RPSCL/UL/23-24/05-L-05/0680	RDML	162001813	4087.80	-	-	3478	4.40	14.6	6.9	39.5	3802	3488
04.11.23	6	CIMFR (R) RPSCL/UL/23-24/06-L-06/0681	PLCP	162003040	4015.50	-	-	3166	4.10	13.6	5.9	44.9	3432	3155
05.11.23	7	CIMFR (R) RPSCL/UL/23-24/07-L-07/0682	PLCP	162003041	4072.20	-	-	3096	3.70	12.9	5.6	46.7	3258	3006
05.11.23	8	CIMFR (R) RPSCL/UL/23-24/08-L-08/0683	CCSR	162007135	4001.50	-	-	3594	4.50	13.3	6.6	39.1	3822	3548
05.11.23	9	CIMFR (R) RPSCL/UL/23-24/09-L-09/0684	RDML	162001816	3959.90	-	-	3486	4.50	11.5	6.7	41.5	3627	3440
05.11.23	10	CIMFR (R) RPSCL/UL/23-24/10-L-10/0685	CCSR	162007136	3730.00	-	-	3256	4.00	9.2	5.5	45.4	3348	3217
06.11.23	11	CIMFR (R) RPSCL/UL/23-24/11-L-11/0686	BSDC	162006080	4065.00	G-5	30	5515	2.20	11.5	3.6	22.7	5768	5295
						G-8	28	4441	2.10	12.3	3.5	36.6	4556	4141
06.11.23	12	CIMFR (R) RPSCL/UL/23-24/12-L-12/0687	BSDC	162006082	4076.20	G-5	30	4724	1.80	9.3	3.0	32.9	4992	4668
						G-12	28	4379	2.20	9.4	3.4	36.7	4535	4253
06.11.23	13	CIMFR (R) RPSCL/UL/23-24/13-L-13/0688	SLSP	162008303	3995.50	-	-	3142	2.90	18.4	4.2	46.1	3568	3002
06.11.23	14	CIMFR (R) RPSCL/UL/23-24/14-L-14/0689	CCSR	162007137	4004.20	-	-	3758	4.00	10.3	5.6	39.0	3896	3702
07.11.23	15	CIMFR (R) RPSCL/UL/23-24/15-L-15/0690	SLSP	162008307	4006.40	-	-	3720	3.20	15.9	5.8	36.9	4233	3778
07.11.23	16	CIMFR (R) RPSCL/UL/23-24/16-L-16/0691	RDML	162001820	3999.50	-	-	3826	4.60	17.2	7.6	34.8	4099	3681
08.11.23	17	CIMFR (R) RPSCL/UL/23-24/17-L-17/0692	SLSP	162008316	3994.60	-	-	3662	3.30	16.2	5.5	38.6	4124	3657
09.11.23	18	CIMFR (R) RPSCL/UL/23-24/18-L-18/0693	BSDC	162006085	3977.20	G-5	28	4903	3.30	8.2	3.8	31.1	5047	4816
						G-8	30	5179	3.20	9.6	3.6	25.6	5605	5262
09.11.23	19	CIMFR (R) RPSCL/UL/23-24/19-L-19/0694	CCSR	162007139	4158.00	-	-	3444	5.20	10.2	5.2	44.6	3499	3314
09.11.23	20	CIMFR (R) RPSCL/UL/23-24/20-L-20/0695	PLCP	162003055	4060.40	-	-	3324	5.40	7.4	6.8	43.8	3435	3413
10.11.23	21	CIMFR (R) RPSCL/UL/23-24/21-L-21/0696	SLSP	162008330	4002.90	-	-	3775	4.70	18.2	5.6	37.8	4200	3639
10.11.23	22	CIMFR (R) RPSCL/UL/23-24/22-L-22/0697	SLSP	162008326	4001.50	-	-	3437	4.70	20.2	5.3	40.8	3970	3345
10.11.23	23	CIMFR (R) RPSCL/UL/23-24/23-L-23/0698	SLSP	162008329	4002.10	-	-	3548	4.80	17.3	5.4	40.4	4009	3505
10.11.23	24	CIMFR (R) RPSCL/UL/23-24/24-L-24/0699	BSDC	162006087	3855.90	G-5	42	4998	2.80	7.9	3.9	30.6	5115	4902
						G-12	16	3439	3.10	10.2	3.9	46.7	3630	3392
10.11.23	25	CIMFR (R) RPSCL/UL/23-24/25-L-25/0700	SLSP	162008333	3981.8	-	-	3854	4.90	17.6	5.5	37.1	4301	3760
11.11.23	26	RPSCL/23-24/26-L-26/0701	BSDC	162006088	3951.80	G-5	31	5215						5215
						G-8	27	4014						4014
11.11.23	27	RPSCL/23-24/27-L-27/0702	SLSP	162008336	3979.70	-	-	3667						3667
11.11.23	28	RPSCL/23-24/28-L-28/0703	RDML	162001829	4107.00	-	-	3823						3823
11.11.23	29	RPSCL/23-24/29-L-29/0704	CCSR	162007142	3860.20	-	-	3747						3747
12.11.23	30	RPSCL/23-24/30-L-30/0705	PLCP	162003071	4082.30	-	-	3426						3426
12.11.23	31	RPSCL/23-24/31-L-31/0706	PLCP	162003072	4071.70	-	-	3175						3175
13.11.23	32	RPSCL/23-24/32-L-32/0707	SLSP	162008349	3991.60	-	-	3337						3337
13.11.23	33	RPSCL/23-24/33-L-33/0708	SLSP	162008348	3981.40	-	-	3331						3331
13.11.23	34	RPSCL/23-24/34-L-34/0709	RDML	162001830	4091.90	-	-	3508						3508
13.11.23	35	RPSCL/23-24/35-L-35/0710	CCSR	162007143	3918.70	-	-	3758						3758
13.11.23	36	RPSCL/23-24/36-L-36/0711	SLSP	162008353	3992.40	-	-	3394						3394
15.11.23	37	RPSCL/23-24/37-L-37/0712	CCSR	162007144	3731.20	-	-	3873						3873
15.11.23	38	RPSCL/23-24/38-L-38/0713	RDML	162001832	3955.30	-	-	3587						3587
15.11.23	39	RPSCL/23-24/39-L-39/0714	RDML	162001833	3846.90	-	-	3591						3591
15.11.23	40	RPSCL/23-24/40-L-40/0715	CCSR	162007145	3876.50	-	-	3577						3577
15.11.23	41	RPSCL/23-24/41-L-41/0716	RDML	162001834	3783.70	-	-	3588						3588
16.11.23	42	RPSCL/23-24/42-L-42/0717	SLSP	162008370	3984.00	-	-	3081						3081
16.11.23	43	RPSCL/23-24/43-L-43/0718	SLSP	162008371	4027.90	-	-	3349						3349
16.11.23	44	RPSCL/23-24/44-L-44/0719	CCSR	162007146	3736.90	-	-	4105						4105
17.11.23	45	RPSCL/23-24/45-L-45/0720	RDML	162001835	4031.40	-	-	3464						3464
17.11.23	46	RPSCL/23-24/46-L-46/0721	CCSR	162007147	3932.30	-	-	4086						4086
17.11.23	47	RPSCL/23-24/47-L-47/0722	SLSP	162008378	3991.20	-	-	3449						3449
18.11.23	48	RPSCL/23-24/48-L-48/0723	BSDC	162006093	4065.90	G-5	30	4588						4588
						G-12	28	4306						4306
18.11.23	49	RPSCL/23-24/49-L-49/0724	CCSR	162007149	4090.00	-	-	3977						3977
18.11.23	50	RPSCL/23-24/50-L-50/0725	RDML	162001837	4020.40	-	-	3581						3581
18.11.23	51	RPSCL/23-24/51-L-51/0726	BSDC	162006096	4076.80	G-5	40	4236						4236
						G-8	18	3515						3515
19.11.23	52	RPSCL/23-24/52-L-52/0727	PLCP	162003096	4076.00	-	-	3446						3446
19.11.23	53	RPSCL/23-24/53-L-53/0728	CCSR	162007150	3922.00	-	-	4192						4192
19.11.23	54	RPSCL/23-24/54-L-54/0729	RDML	162001838	4008.10	-	-	3238						3238
19.11.23	55	RPSCL/23-24/55-L-55/0730	BSDC	162006097	4038.50	G-5	30	3929						3929
						G-12	28	3895						3895
20.11.23	56	RPSCL/23-24/56-L-56/0731	CCSR	162007151C	3998.70	-	-	4501						4501
20.11.23	57	RPSCL/23-24/57-L-57/0732	SLSP	162008397	4077.00	-	-	3071						3071
21.11.23	58	RPSCL/23-24/58-L-58/0733	SLSP	162008401	4003.70	-	-	2969						2969
21.11.23	59	RPSCL/23-24/59-L-59/0734	SLSP	162008402	3998.00	-	-	3110						3110



21.11.23	60	RPSCL/23-24/60-L-60/0735	RDML	162001839	4070.30	-	-	3950						3950
22.11.23	61	RPSCL/23-24/61-L-61/0736	RDML	162001840	3952.90	-	-	3350						3350
22.11.23	62	RPSCL/23-24/62-L-62/0737	SLSP	162008408	3993.70	-	-	3308						3308
23.11.23	63	RPSCL/23-24/63-L-63/0738	SLSP	162008413	4009.10	-	-	3200						3200
23.11.23	64	RPSCL/23-24/64-L-64/0739	SLSP	162008414	4022.90	-	-	3281						3281
23.11.23	65	RPSCL/23-24/65-L-65/0740	BSDC	162006099	3676.80	G-8	41	3497						3497
						G-10	17	3546						3546
24.11.23	66	RPSCL/23-24/66-L-66/0741	SLSP	162008420	3995.00	-	-	3384						3384
24.11.23	67	RPSCL/23-24/67-L-67/0742	CCSR	162007152	3731.30	-	-	3828						3828
25.11.23	68	RPSCL/23-24/68-L-68/0743	SLSP	162008425	4001.60	-	-	3302						3302
25.11.23	69	RPSCL/23-24/69-L-69/0744	CCSR	162007153	4028.00	-	-	3570						3570
25.11.23	70	RPSCL/23-24/70-L-70/0745	SLSP	162008430	3987.20	-	-	3266						3266
25.11.23	71	RPSCL/23-24/71-L-71/0745	RDML	162001843	4022.70	-	-	3704						3704
25.11.23	72	RPSCL/23-24/72-L-72/0747	BSDC	162006100	3977.90	G-8	40	4548						4548
						G-10	18	3934						3934
25.11.23	73	RPSCL/23-24/73-L-73/0748	BSDC	162006101	4011.90	G-5	28	3846						3846
						G-12	30	3835						3835
26.11.23	74	RPSCL/23-24/74-L-74/0749	RDML	162008437	3986.40	-	-	2914						2914
26.11.23	75	RPSCL/23-24/75-L-75/0750	RDML	162001844	4000.70	-	-	3412						3412
26.11.23	76	RPSCL/23-24/76-L-76/0751	SLSP	162001845	4001.30	-	-	3532						3532
27.11.23	77	RPSCL/23-24/77-L-77/0752	BCSM	162001559	4049.50	-	-	3117						3117
27.11.23	78	RPSCL/23-24/78-L-78/0753	RDML	162001846	4100.90	-	-	3759						3759
28.11.23	79	RPSCL/23-24/79-L-79/0754	CCSR	162007156	4055.10	-	-	3249						3249
28.11.23	80	RPSCL/23-24/80-L-80/0755	PLCP	162003155	3990.00	-	-	3359						3359
28.11.23	81	RPSCL/23-24/81-L-81/0756	RDML	162001849	4029.30	-	-	3647						3647
29.11.23	82	RPSCL/23-24/82-L-82/0757	SLSP	162008452	4020.40	-	-	3084						3084
29.11.23	83	RPSCL/23-24/83-L-83/0758	PLCP	162003154	3989.70	-	-	2989						2989
29.11.23	84	RPSCL/23-24/84-L-84/0759	CCSR	162007159	3591.10	-	-	3751						3751
29.11.23	85	RPSCL/23-24/85-L-85/0760	CCSR	162007158	3974.50	-	-	4115						4115
30.11.23	86	RPSCL/23-24/86-L-86/0761	BSDC	162006104	3675.20	G-8	19	3908						3908
						G-12	40	4145						4145
30.11.23	87	RPSCL/23-24/87-L-87/0762	SLSP	162008462	4003.10	-	-	3164						3164
30.11.23	88	RPSCL/23-24/88-L-88/0763	CCSR	162007160	4031.00	-	-	3930						3930
30.11.23	89	RPSCL/23-24/89-L-89/0764	CCSR	162007161	3605.60	-	-	3887						3887
					354054.70			3642						3836



सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट-नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 29.10.2023 TO 03.11.2023

UNLOADING END ANALYSIS REPORT

Date: 11-01-2024

Test Report No: CIMFR/RRC/TPS/ROSA UL/OCT-NOV/2023/16 | Power Utility: Rosa Power Supply Company Limited

Name of Coal Company-Central Coal Field Ltd. | Date of start of analysis: 01.01.2024 | Relative Humidity of laboratory: 65%

Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample | Temperature of laboratory: 23.2°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (MT)	R.R.No./ P. Note No.	R.R. Date	M %	ASH %	GCV (Kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/56L-56/23.24/0661 (G-5)	29-10-2023	30-10-2023	06-11-2023	2736.71	[illegible]478	28.10.23	3.2	30.6	5129.58	3.6	30.7	5109	G6
2	CIMFR(R)/RPSCL/UL/56L-56/23.24/0661 (G-12)	29-10-2023	30-10-2023	06-11-2023	1246.37			3.0	39.8	4347.85	3.3	39.7	4334	G10
3	CIMFR(R)/RPSCL/UL/57L-57/23.24/0663	29-10-2023	30-10-2023	06-11-2023	3701.40	1820001802	28.10.23	7.8	29.4	4956.79	8.0	29.3	4947	G10
4	CIMFR(R)/RPSCL/UL/58L-58/23.24/0664	29-10-2023	30-10-2023	06-11-2023	3778.80	1820041/0	28.10.23	8.0	39.5	3837.77	8.1	39.5	3834	G12
5	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-5)	30-10-2023	31-10-2023	06-11-2023	1925.31	162006070	29.10.23	3.0	27.5	5439.58	3.3	27.4	5423	G7
6	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-12)	30-10-2023	31-10-2023	06-11-2023	1733.95			3.0	34.4	4848.82	3.4	34.3	4829	G9
7	CIMFR(R)/RPSCL/UL/60L-60/23.24/0666	30-10-2023	31-10-2023	06-11-2023	3970.20	162001804	28.10.23	7.8	30.1	4495.32	8.6	29.8	4456	G10
8	CIMFR(R)/RPSCL/UL/61L-61/23.24/0667	30-10-2023	31-10-2023	06-11-2023	3996.60	152000063	29.10.23	5.4	43.9	3512.37	6.1	43.6	3486	G13
9	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-5)	31-10-2023	01-11-2023	06-11-2023	2056.07	161005072	30.10.23	3.5	17.8	6343.51	4.1	17.7	6304	G4
10	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-8)	31-10-2023	01-11-2023	06-11-2023	1912.73			2.7	41.7	4203.47	3.2	41.5	4182	G11
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0669	01-11-2023	01-11-2023	06-11-2023	3878.20	162001806	30.10.23	7.1	34.5	4197.47	8.0	34.2	4157	G11
12	CIMFR(R)/RPSCL/UL/02L-02/23.24/0670	01-11-2023	01-11-2023	06-11-2023	4001.00	152000090	31.10.23	6.1	41.4	3650.16	6.8	41.1	3623	G13
13	CIMFR(R)/RPSCL/UL/03L-03/23.24/0671	01-11-2023	01-11-2023	06-11-2023	3962.60	162008269	30.10.23	4.2	46.1	3600.08	4.2	46.1	3600	G13
14	CIMFR(R)/RPSCL/UL/04L-04/23.24/0672	01-11-2023	02-11-2023	06-11-2023	4001.10	152000233	30.10.23	4.1	51.9	3151.06	4.1	51.9	3151	G14
15	CIMFR(R)/RPSCL/UL/05L-05/23.24/0673	01-11-2023	02-11-2023	06-11-2023	3837.50	162001807	30.10.23	7.2	37.2	3963.26	7.8	37.0	3938	G12
16	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-5)	01-11-2023	02-11-2023	06-11-2023	2048.14	162006076	31.10.23	3.3	28.0	5465.90	4.1	27.8	5421	G7
17	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-12)	01-11-2023	02-11-2023	06-11-2023	1931.95			3.6	25.2	5564.66	3.7	25.2	5559	G6
18	CIMFR(R)/RPSCL/UL/07L-07/23.24/0675	02-11-2023	02-11-2023	06-11-2023	4002.50	162008269	31.10.23	4.3	46.0	3615.64	4.1	46.1	3623	G13
19	CIMFR(R)/RPSCL/UL/01L-01/23.24/0676	02-11-2023	03-11-2023	06-11-2023	3821.80	142000450	01.11.23	6.1	40.8	3692.66	6.9	40.6	3677	G13
20	CIMFR(R)/RPSCL/UL/02L-02/23.24/0677	03-11-2023	03-11-2023	06-11-2023	4087.00	142000166	01.11.23	8.0	20.4	5161.60	8.2	20.4	5150	G8

* Customer Provided Information

**Grade as per the website of the Ministry of coal (www.coalcontrol.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note:

(i) Sample collected as per PSA.

(ii) Testing Method followed - Ash & Moisture as per ASTM D 7582-15 & GCV as per ASTM D 5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013.

(iii) Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).

(iv) Name of the experiment is performed by external service provider/.

(v) This report should not be replicated or reproduced.

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
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RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 29.10.2023 TO 03.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 11-01-2024

Test Report No.-CIMFR/NRC/TPS/ROSA-UI/OCT-NOV/2023/46
Power Utility- Rosa Power Supply Company Limited
Name of Coal Company-Central Coal Field Ltd.
Date of start of analysis -01.01.2024
Unloading Area/Siding- RPSCL, Shahjahanpur, Uttar Pradesh
Product tested - Coal Sample

Sl. No	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (MT)	R.R.No./ T. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/56L-56/23.24/0662 (G-5)	29-10-2023	30-10-2023	06-11-2023	2736.71	162000178	28.10.23	10.6
2	CIMFR(R)/RPSCL/UL/56L-56/23.24/0662 (G-12)	29-10-2023	30-10-2023	06-11-2023	1246.37			7.0
3	CIMFR(R)/RPSCL/UL/57L-57/23.24/0663	29-10-2023	30-10-2023	06-11-2023	3781.40	162001802	28.10.23	14.4
4	CIMFR(R)/RPSCL/UL/58L-58/23.24/0664	29-10-2023	30-10-2023	06-11-2023	3778.80	162004170	28.10.23	13.6
5	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-5)	30-10-2023	31-10-2023	06-11-2023	1925.31	162006070	29.10.23	7.7
6	CIMFR(R)/RPSCL/UL/59L-59/23.24/0665 (G-12)	30-10-2023	31-10-2023	06-11-2023	1733.95			8.0
7	CIMFR(R)/RPSCL/UL/60L-60/23.24/0666	30-10-2023	31-10-2023	06-11-2023	3979.50	162001804	28.10.23	16.8
8	CIMFR(R)/RPSCL/UL/61L-61/23.24/0667	30-10-2023	31-10-2023	06-11-2023	3995.50	162000063	28.10.23	11.8
9	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-5)	31-10-2023	01-11-2023	06-11-2023	2056.07	162006072	30.10.23	8.1
10	CIMFR(R)/RPSCL/UL/62L-62/23.24/0668 (G-8)	31-10-2023	01-11-2023	06-11-2023	1912.73			9.2
11	CIMFR(R)/RPSCL/UL/01L-01/23.24/0669	01-11-2023	01-11-2023	06-11-2023	3979.80	162001805	30.10.23	15.8
12	CIMFR(R)/RPSCL/UL/02L-02/23.24/0670	01-11-2023	01-11-2023	06-11-2023	4001.00	162000090	31.10.23	14.2
13	CIMFR(R)/RPSCL/UL/03L-03/23.24/0671	01-11-2023	01-11-2023	06-11-2023	3982.50	162006266	30.10.23	17.8
14	CIMFR(R)/RPSCL/UL/04L-04/23.24/0672	01-11-2023	02-11-2023	06-11-2023	4001.10	162000233	30.10.23	16.9
15	CIMFR(R)/RPSCL/UL/05L-05/23.24/0673	01-11-2023	02-11-2023	06-11-2023	3837.50	162001807	30.10.23	16.1
16	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-5)	01-11-2023	02-11-2023	06-11-2023	2046.14	162006078	31.10.23	10.4
17	CIMFR(R)/RPSCL/UL/06L-06/23.24/0674 (G-12)	01-11-2023	02-11-2023	06-11-2023	1931.96			10.3
18	CIMFR(R)/RPSCL/UL/07L-07/23.24/0675	02-11-2023	02-11-2023	06-11-2023	4002.50	162006269	31.10.23	15.3
19	CIMFR(R)/RPSCL/UL/01L-01/23.24/0676	02-11-2023	03-11-2023	06-11-2023	3821.80	162000450	01.11.23	11.2
20	CIMFR(R)/RPSCL/UL/02L-02/23.24/0677	03-11-2023	03-11-2023	06-11-2023	4087.00	162000168	01.11.23	16.4

* Customer Provided Information

Note

(i) Sample collected as per ISA

(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013

(iii) None of the experiments is performed by external service provider

(iv) This report should not be reproduced or republished.

(v) The sheet related to coal sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Dr. M.K. Saini)
(Authorized Signatory)
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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
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CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 30.10.2023 TO 08.11.2023

UNLOADING END ANALYSIS REPORT

Test Report No. CIMFR/PRC/PS/ROSA PL/GCT Arriv/2023/47 | Power Utility- Rosa Power Supply Company Limited | Date: 25-01-2024

Name of Coal Company-Lateral Coal Finished | Date of start of analysis :18-12-2023 | Relative Humidity of laboratory: 54%

Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample | Temperature of laboratory: 25.7°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (MT)	R.R.No. / E. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/17L-37/23.24/0643 (G-8)	20-10-2023	21-10-2023	26-10-2023	2119.00	162000176	18.10.23	2.6	34.9	4938.40	3.4	34.2	4828	G9
2	CIMFR(R)/RPSCL/UL/16L-46/23.24/0652 (G-10)	23-10-2023	24-10-2023	01-11-2023	1247.03	162006061	21.10.23	3.5	29.7	5215.98	3.8	29.6	5200	G8
3	CIMFR(R)/RPSCL/UL/03L-03/23.24/0678	03-11-2023	04-11-2023	10.11.2023	4038.80	162008283	02.11.23	3.2	42.7	4007.55	8.4	42.2	3958	G12
4	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-5)	04-11-2023	04-11-2023	10.11.2023	2794.81	162006078	02.11.23	3.1	30.0	5285.53	3.2	29.7	5235	G7
5	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-12)	04-11-2023	04-11-2023	10.11.2023	1264.00			2.3	27.9	5492.72	3.6	27.5	5360	G7
6	CIMFR(R)/RPSCL/UL/05L-05/23.24/0680	04-11-2023	04-11-2023	10.11.2023	4087.80	162001813	02.11.23	4.4	40.6	3904.59	6.9	39.5	3802	G12
7	CIMFR(R)/RPSCL/UL/07L-07/23.24/0682	05-11-2023	05-11-2023	10.11.2023	4072.20	162003041	03.11.23	3.7	47.6	3323.72	5.8	46.7	3258	G14
8	CIMFR(R)/RPSCL/UL/08L-08/23.24/0683	05-11-2023	05-11-2023	10.11.2023	4001.50	162007135	03.11.23	4.5	40.0	3908.20	8.6	39.1	3822	G12
9	CIMFR(R)/RPSCL/UL/09L-09/23.24/0684	05-11-2023	06-11-2023	10.11.2023	3989.80	162001816	03.11.23	4.5	42.5	3712.09	6.7	41.5	3627	G13
10	CIMFR(R)/RPSCL/UL/10L-10/23.24/0685	05-11-2023	07-11-2023	10.11.2023	3730.00	162007136	04.11.23	4.0	46.1	3480.71	5.5	45.4	3348	G14
11	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-5)	06-11-2023	07-11-2023	10.11.2023	2038.07	162006080	04.11.23	2.2	23.0	5851.32	3.6	22.7	5768	G6
12	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-8)	06-11-2023	07-11-2023	10.11.2023	2028.93			2.1	37.1	4622.48	3.5	36.6	4556	G10
13	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-5)	06-11-2023	07-11-2023	10.11.2023	2104.20	162006082	05.11.23	1.8	33.3	5053.68	3.0	32.9	4992	G8
14	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-12)	06-11-2023	07-11-2023	10.11.2023	1972.00			2.2	37.2	4591.34	3.4	36.7	4535	G10
15	CIMFR(R)/RPSCL/UL/13L-13/23.24/0688	06-11-2023	07-11-2023	10.11.2023	3996.50	162008303	05.11.23	2.9	38.7	3618.17	4.2	46.1	3563	G13
16	CIMFR(R)/RPSCL/UL/14L-14/23.24/0689	06-11-2023	07-11-2023	10.11.2023	4004.20	162007137	05.11.23	4.0	39.7	3962.54	5.6	39.0	3896	G12
17	CIMFR(R)/RPSCL/UL/15L-15/23.24/0690	07-11-2023	07-11-2023	10.11.2023	4008.40	162008307	05.11.23	3.2	37.9	4349.35	5.8	36.9	4233	G11
18	CIMFR(R)/RPSCL/UL/16L-16/23.24/0691	07-11-2023	07-11-2023	10.11.2023	3999.50	162001820	05.11.23	4.6	36.0	4241.56	7.8	34.8	4099	G11
19	CIMFR(R)/RPSCL/UL/17L-17/23.24/0692	08-11-2023	08-11-2023	10.11.2023	3994.60	162008316	06.11.23	3.3	39.5	4219.61	5.5	38.6	4124	G11

* Customer Provided information

**Grade as per the website of the Ministry of coal [www.coal.nic.in/major-statistics/coal grades; www.coal.gov.in/major-statistics/coal-grades]

Note:

(i) Sample collected as per ISI,

(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, GM as per IS 1350 (Part-I)- 1984 Reaffirmed 2013

(iii)Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).

(iv) None of the experiment is performed by external service provider.

(v) This report should not be replicated or is produced

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Dr. M.K Yadav)
Authorized Signatory
CSIR CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 20.10.2023 TO 08.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 25-01-2024

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/OCT-NOV/2023/47
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -18-12-2023
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ E. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/37L-37/23.24/0643 (G-8)	20-10-2023	21-10-2023	26-10-2023	2119.00	152000178	18.10.23	8.9
2	CIMFR(R)/RPSCL/UL/46L-46/23.24/0652 (G-10)	23-10-2023	24-10-2023	01-11-2023	1247.03	162006061	21.10.23	7.7
3	CIMFR(R)/RPSCL/UL/03L-03/23.24/0678	03-11-2023	04-11-2023	10.11.2023	4038.80	162008283	02.11.23	14.9
4	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-5)	04-11-2023	04-11-2023	10.11.2023	2794.81	162006078	02.11.23	7.7
5	CIMFR(R)/RPSCL/UL/04L-04/23.24/0679 (G-12)	04-11-2023	04-11-2023	10.11.2023	1264.00			9.1
6	CIMFR(R)/RPSCL/UL/05L-05/23.24/0680	04-11-2023	04-11-2023	10.11.2023	4087.80	162001813	02.11.23	14.6
7	CIMFR(R)/RPSCL/UL/07L-07/23.24/0682	05-11-2023	05-11-2023	10.11.2023	4072.20	162003041	03.11.23	12.9
8	CIMFR(R)/RPSCL/UL/08L-08/23.24/0683	05-11-2023	05-11-2023	10.11.2023	4001.50	162007135	03.11.23	13.3
9	CIMFR(R)/RPSCL/UL/09L-09/23.24/0684	05-11-2023	06-11-2023	10.11.2023	3959.90	162001816	03.11.23	11.5
10	CIMFR(R)/RPSCL/UL/10L-10/23.24/0685	05-11-2023	07-11-2023	10.11.2023	3730.00	162007136	04.11.23	9.2
11	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-5)	06-11-2023	07-11-2023	10.11.2023	2038.07	162006080	04.11.23	11.5
12	CIMFR(R)/RPSCL/UL/11L-11/23.24/0686 (G-8)	06-11-2023	07-11-2023	10.11.2023	2026.93			12.3
13	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-5)	06-11-2023	07-11-2023	10.11.2023	2104.20	162006082	05.11.23	9.3
14	CIMFR(R)/RPSCL/UL/12L-12/23.24/0687 (G-12)	06-11-2023	07-11-2023	10.11.2023	1972.00			9.4
15	CIMFR(R)/RPSCL/UL/13L-13/23.24/0688	06-11-2023	07-11-2023	10.11.2023	3995.80	162008303	05.11.23	19.4
16	CIMFR(R)/RPSCL/UL/14L-14/23.24/0689	06-11-2023	07-11-2023	10.11.2023	4004.20	162007137	05.11.23	10.3
17	CIMFR(R)/RPSCL/UL/15L-15/23.24/0690	07-11-2023	07-11-2023	10.11.2023	4006.40	162008307	05.11.23	15.9
18	CIMFR(R)/RPSCL/UL/16L-16/23.24/0691	07-11-2023	07-11-2023	10.11.2023	3999.50	162001820	05.11.23	17.2
19	CIMFR(R)/RPSCL/UL/17L-17/23.24/0692	08-11-2023	08-11-2023	10.11.2023	3994.60	162008316	06.11.23	16.2

* Customer Provided Information

Note

(i) Sample collected as per ISS.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-II, 1984 Reaffirmed 2013
(iii) None of the experiment is performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

25/01/2024

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 09.11.2023 TO 10.11.2023

UNLOADING END ANALYSIS REPORT

Power Utility: Bihar Power Supply Company Limited
Date of start of analysis: 23.01.2024
Product tested : Coal Sample

Date: 02-02-2024
Relative Humidity of laboratory: 58%
Temperature of laboratory: 23.2 C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried Basis			Equilibrated moisture Basis (60% RH & 40°C)			Analysed Grade**
					R.R. Quantity (MT)	R.R.No./ T. Note No	R.R Date	M%	ASH%	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/18L-18/23.24/0693 (G-5)	09-11-2023	09-11-2023	17.11.2023	2087.40	1629035885	08.11.23	3.3	31.3	5073.05	3.8	31.1	5047	G8
2	CIMFR(R)/RPSCL/UL/18L-18/23.24/0693 (G-8)	09-11-2023	09-11-2023	17.11.2023	1091.80			3.2	25.7	5623.98	3.6	25.6	5605	G6
3	CIMFR(R)/RPSCL/UL/19L-19/23.24/0694	09-11-2023	10-11-2023	17.11.2023	4159.00	1629037139	07.11.23	5.2	44.6	3499.62	5.2	44.6	3499	G13
4	CIMFR(R)/RPSCL/UL/20L-20/23.24/0695	09-11-2023	10-11-2023	17.11.2023	4080.40	1629035055	07.11.23	5.4	44.9	3486.55	5.8	43.8	3415	G13
5	CIMFR(R)/RPSCL/UL/21L-21/23.24/0696	10-11-2023	10-11-2023	17.11.2023	4002.90	1629038270	08.11.23	4.7	38.2	4240.02	5.6	37.8	4200	G11
6	CIMFR(R)/RPSCL/UL/22L-22/23.24/0697	10-11-2023	10-11-2023	17.11.2023	4001.50	1629038325	08.11.23	4.7	41.1	3995.39	5.3	40.8	3969	G12
7	CIMFR(R)/RPSCL/UL/23L-23/23.24/0698	10-11-2023	11-11-2023	17.11.2023	4002.10	1629038329	08.11.23	4.8	40.7	4034.51	5.4	40.4	4000	G11
8	CIMFR(R)/RPSCL/UL/24L-24/23.24/0699 (G-5)	10-11-2023	11-11-2023	17.11.2023	2802.00	1629035897	08.11.23	2.8	31.0	5173.44	3.9	30.6	5115	G8
9	CIMFR(R)/RPSCL/UL/24L-24/23.24/0699 (G-12)	10-11-2023	11-11-2023	17.11.2023	1053.90			3.1	42.1	3600.13	3.9	40.7	3510	G11

* Carbon of Proceeds to Railways
** Grade as per the provision of the Gazette notification, www.coal.gov.in/major statistics/coalgrades
Note:
(i) Sample collected as per CIL.
(ii) Testing Methodology: Moisture as per IS 1350 (Part-I): 1984 Reaffirmed 2013 & GCV as per ASTM D 5865-19, IS 436 (Part-1/Sec-1): 1964 Reaffirmed 2013
(iii) Subject to delivery of the sample in the month of receipt of information to the laboratory following (ASTM D 4239-18).
(iv) None of the parameters of guidelines & methods of sample parameters.
(v) This report shall not be the replacement of Formal Test.
(vi) The sample after testing the same period, in case of dispute will be destroyed after three months.

(Dr. M.K Singh)
Technical Officer
CSIR-CIMFR RC, Ranchi

BOARD OF POWER SUPPLY COMPANY LIMITED LUCKNOW

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR-CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 09.11.2023 TO 10.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date: 02-02-2024

Test Report No -CIMFR/RC/CPS/RPSCL-UL/NOV/2023/48

Name of Coal Company-Central Coal Field Ltd.

Unloading Area/Siding-RPSCL, Shaktinagar, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited

Date of start of analysis- 29.01.2024

Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/18L-18/23.24/0693 (G-5)	09-11-2023	09-11-2023	17.11.2023	2085.40	162006085	08.11.23	8.2
2	CIMFR(R)/RPSCL/UL/18L-18/23.24/0693 (G-8)	09-11-2023	09-11-2023	17.11.2023	1891.80			9.5
3	CIMFR(R)/RPSCL/UL/19L-19/23.24/0694	09-11-2023	10-11-2023	17.11.2023	4159.00	162007139	07.11.23	10.2
4	CIMFR(R)/RPSCL/UL/20L-20/23.24/0695	09-11-2023	10-11-2023	17.11.2023	4060.40	162003055	07.11.23	7.4
5	CIMFR(R)/RPSCL/UL/21L-21/23.24/0696	10-11-2023	10-11-2023	17.11.2023	4002.90	162008330	08.11.23	18.2
6	CIMFR(R)/RPSCL/UL/22L-22/23.24/0697	10-11-2023	10-11-2023	17.11.2023	4001.50	162008326	08.11.23	20.2
7	CIMFR(R)/RPSCL/UL/23L-23/23.24/0698	10-11-2023	11-11-2023	17.11.2023	4002.10	162008329	08.11.23	17.3
8	CIMFR(R)/RPSCL/UL/24L-24/23.24/0699 (G-5)	10-11-2023	11-11-2023	17.11.2023	2802.00	162006087	08.11.23	7.9
9	CIMFR(R)/RPSCL/UL/24L-24/23.24/0699 (G-12)	10-11-2023	11-11-2023	17.11.2023	1053.90			10.2

* Customer Provided Information

Note

(i) Sample collected as per PSA.

(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013

(iii) None of the experiment is performed by external service provider.

(iv) This report should not be replicated or reproduced.

(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

02/02/2024

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, रांची ,पोस्ट- नामकुम, रांची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 04.11.2023 TO 10.11.2023

UNLOADING END ANALYSIS REPORT

Date:13-02-2024

Test Report No. CIMFR/RAC/TPS/RUSA-UL/NOV/2023/49 | Power Utility- Rosa Power Supply Company Limited

Name of Coal Company-Central Coal Field Ltd. | Date of start of analysis -25.01.2024 | Relative Humidity of laboratory: 48%

Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh | Product tested - Coal Sample | Temperature of laboratory: 21.0°C

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			Air-dried basis			Equilibrated moisture basis (60% RH & 40°C)			Analysed Grade **
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	M %	ASH %	GCV (kcal/kg)	M%	ASH%	GCV (kcal/kg)	
1	CIMFR(R)/RPSCL/UL/08L-06/23.24/0681	04-11-2023	05-11-2023	10.11.2023	4016.50	162003040	03.11.23	4.1	45.8	3497.92	5.9	44.9	3432	G13
2	CIMFR(R)/RPSCL/UL/25L-25/23.24/0700	10-11-2023	11-11-2023	17.11.2023	3981.80	162008333	09.11.23	4.9	37.3	4328.50	5.5	37.1	4301	G10

* Customer Provided Information

**Grade as per the website of the Ministry of coal (www.coal.nic.in/major-statistics/coal-grades, www.coal.gov.in/major-statistics/coal-grades)

Note:

(i) Sample collected as per FSA.

(ii) Testing Method followed - Ash & Moisture as per ASTM D-7582-15 & GCV as per ASTM D-5865-19, EM as per IS 1350 (Part-I): 1984 Reaffirmed 2013

(iii)Sulphur(s) value has been put in the bomb calorimeter as determined in the laboratory following (ASTM D 4239-18).

(iv) None of the experiment is performed by external service provider.

(v) This report should not be replicated or reproduced.

(vi) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

(Dr. R.K Sahu)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

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सीएसआईआर-केंद्रीय खनन एवं ईंधन अनुसंधान संस्थान
अनुसंधान केंद्र, राँची ,पोस्ट- नामकुम, राँची -834010
CSIR- CENTRAL INSTITUTE OF MINING AND FUEL RESEARCH
RESEARCH CENTRE - RANCHI, POST - NAMKUM, RANCHI- 834010

Analytical results of coal samples collected by CSIR-CIMFR during the period 04.11.2023 TO 10.11.2023

UNLOADING END ANALYSIS REPORT FOR TOTAL MOISTURE

Date:13-02-2024

Test Report No.-CIMFR/RNC/TPS/ROSA-UL/NOV/2023/49
Name of Coal Company-Central Coal Field Ltd.
Unloading Area/Siding-RPSCL, Shahjahanpur, Uttar Pradesh

Power Utility- Rosa Power Supply Company Limited
Date of start of analysis -25.01.2024
Product tested - Coal Sample

Sl. No.	Sample ID	Date of collection	Date of preparation	Date of sample receiving at laboratory	Railway Rake/MGR *			TM%
					R.R. Quantity (Mt)	R.R.No./ F. Note No.	R.R. Date	
1	CIMFR(R)/RPSCL/UL/06L-06/23.24/0681	04-11-2023	05-11-2023	10.11.2023	4015.50	162003040	03.11.23	13.5
2	CIMFR(R)/RPSCL/UL/25L-25/23.24/0700	10-11-2023	11-11-2023	17.11.2023	3981.80	162008333	09.11.23	17.6

* Customer Provided Information

Note

(i) Sample collected as per FSA.
(ii) Testing Method followed - Total Moisture as per IS 1350 (Part-I), 1984 Reaffirmed 2013
(iii) None of the experiments performed by external service provider.
(iv) This report should not be replicated or reproduced.
(v) The result related to the sample tested. Reserve part of the sample will be destroyed after three months.

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Dr. M.K. Saini)
(Authorized Signatory)
CSIR-CIMFR, RC, RANCHI

RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

Ref No: Invoice RPSCL/2023-24/12 03th April 2024

The Superintending Engineer
Electricity Import, Export and Payment Circle
UP Power Corporation Limited
11th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow 226 001

Sub: Provisional Invoice towards the supply of Power from Rosa Power Project

Ref: UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Dear Sir,

We enclose herewith provisional invoice no. Rosa TPP/ 2023-24/Invoice/12 for the month of **March 2024** issued on the basis of UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Please note that the present invoice is without prejudice to any of our claims, rights and entitlements under PPA and law all of which are specifically reserved.

Thanking you

For Rosa Power Supply Company Ltd

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Siddharth Shekhawat)
Authorized Signatory

Enclosures: As above

CC: The DGM (FM), UPPCL Lucknow

Rosa Power Supply Company Ltd.

Administrative Block, Hardoi Road PO Rausar Kothi, Tehsil Sadar, District Shahjahanpur 242406

GSTIN: 09AABCR8917M1ZR, PAN: AABCR8917M

Ref No. - Rosa TPP/2023-24/Invoice/12
Billing Period: March 2024
Nature of Bill: Monthly Invoice for Recovery of Fixed and Variable Charges

Bill Date 3/Apr/2024
Due Date 3/May/2024

To,
The Superintending Engineer, Electricty Import, Export and Payment Circle
Uttar Pradesh Power Corporation Ltd, Shakti Bhawan
14, Ashok Marg, Lucknow - 226 001
PAN : AAACU5088M

Without Prejudice
Invoice Rosa TPP

Subject: Invoice for Charges Payable by UPPCL for the month of March 2024

Reference: Amended and Reinstated Power Purchase Agreement (PPA) dated 12.11.2006 and all its amendments.
UPERC Order dated 16.05.2023 approving Multi-Year Tariff of Rosa TPP for FY 2019-20 to FY 2023-24.

Details of Charges Payable by UPPCL During The Billing Period

S. No.	Description	Energy (kWh)	Amount (Rs.)	Source
1	Total Fixed Charges Payable by UPPCL for the Billing Period	792,253,000	957,783,333	Fixed Charges Details (Annexure 1)
2	Total Variable Charges Payable by UPPCL for the Billing Period	568,217,625	1,871,140,638	Variable Charges Details (Annexure 2)
3	Total Amount Payable by UPPCL for the Billing Period		2,828,923,971	

Amount in Words : Rupees Two Hundred Eighty Two Crores Eighty Nine Lacs Twenty Three Thousand Nine Hundred Seventy One Only

Note:
1 Payments shall be made in the favour of **Rosa Power Supply Company Ltd, A/c No : 1001103000002615,**
(IDBI Bank Cuffe Parade WTC Branch, IFSC Code: IBKL0001001)

Annexures:
1 Details of fixed charges recoverable during the billing period
2 Details of variable charges recoverable during the billing period
3 Details of Declared Capacity and Scheduled Generation as per Schedule Issued by UP SLDC

Authorized Signatory
(Siddharth Shekhawat)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa TPP | Billing Period: March 2024 | Annexure 1

Details of Fixed Charges Payable by UPPCL

S. No.	Description	Units	Value	Source
			March-24	
1	Energy as per Declared Capacity of the Billing Period for Phase I(As per the DC issued by RPSCL)	kWh	407,527,250	Annexure 3
2	Energy as per Declared Capacity of the Billing Period for Phase II (As per the DC issued by RPSCL)	kWh	384,725,750	Annexure 3
3	Total Energy Considered for Fixed Charges Calculation	kWh	792,253,000	(3 = 1 + 2)
4	No. of Days in Billing Period	Days	31	
5	Availability Factor for the Billing Period	%	96.98%	
6	Annual Fixed Charges approved by UPERC for FY 2023-24	(Rs)	11,493,400,000	UPERC MYT order dated 16/05/2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020
7	Monthly Fixed Charges	(Rs)	957,783,333	
8	Cumulative Fixed Charges Year Till End of Billing Period	(Rs)	11,493,400,000	
9	Cumulative energy as per Declared Capacity Year Till End of Billing Period	kWh	9,066,645,990	
10	Days in the current tariff year	Days	366	
11	Cumulative Availability as per Declared Capacity Year Till End of Billing Period	%	94.01%	
12	Cumulative Fixed Charges recoverable Year Till End of Billing Period	(Rs)	11,493,400,000	
13	Fixed Charges already billed Till Date	(Rs)	10,535,616,667	
14	**Fixed Charges recoverable in this bill**	**(Rs)**	**957,783,333**	

Note:
1) The invoice towards Deemed Energy due to grid disturbance/transmission line tripping and Incentive will be raised separately.

Formula For Availability Calculation: $\frac{\text{Declared Capacity}}{1200 \times 24 \times (\text{No. of Days}) \times (100\% - \%\text{Auxiliary Consumption}) \times 1000}$

LUCKNOW

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Rosa TPP	Billing Period: March 2024	Annexure 2

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Scheduled Energy For Rosa TPP Phase I (As per the schedule issued by UP SLDC)	kWh	321,145,695	Annexure 3
2	Scheduled Energy For Rosa TPP Phase II (As per the schedule issued by UP SLDC)	kWh	247,071,930	Annexure 3
3	**Total Scheduled Energy for the Station**	**kWh**	568,217,625	
4	Energy Charge Rate (ECR)	(Rs)	**3.293**	Table: Energy Charge Calculation
5	Total Variable Charges calculated for the billing period	(Rs)	1,871,140,638	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.35857	Annexure 2A
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	568217625	Schedule Issued by UPPTCL
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3555	Annexure 2A
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.4344	Monthly Average (Annexure 2B)
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFi	Rs/ ml	0.07966358	Annexure 2B
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFi +LC x LPL} x 100 / (100-Aux)**	Rs	3.293	Calculated as per formula in Generation Regulation 2019

Note:

ECR is calculated considering weighted average As Received GCV of Primary fuel in KCal/Kg less 85KCal/Kg on account of variation during storage and CV of Secondary fuel in KCal/ml as per UPERC tariff regulation 2019.

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Annexure 3

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Mar-24	13.1760000	8.7498700
02-Mar-24	13.1760000	7.5558150
03-Mar-24	13.1760000	8.0292900
04-Mar-24	13.1760000	9.0998300
05-Mar-24	13.1760000	8.0087450
06-Mar-24	13.1760000	7.3705500
07-Mar-24	13.1760000	8.7498650
08-Mar-24	13.1760000	10.8085650
09-Mar-24	13.1760000	11.6114200
10-Mar-24	13.1760000	10.5615250
11-Mar-24	13.1760000	11.7555150
12-Mar-24	13.1760000	12.1467250
13-Mar-24	13.1760000	12.4348850
14-Mar-24	13.1760000	12.4349000
15-Mar-24	13.1760000	12.6407400
16-Mar-24	13.1760000	12.1055350
17-Mar-24	13.1760000	11.1585500
18-Mar-24	13.1760000	11.8584550
19-Mar-24	13.1760000	10.8291900
20-Mar-24	13.1760000	9.2233350
21-Mar-24	13.1760000	8.0087150
22-Mar-24	13.1760000	10.1085500
23-Mar-24	13.1760000	10.6850300
24-Mar-24	13.1760000	10.1703300
25-Mar-24	13.1760000	8.4410750
26-Mar-24	13.1760000	8.7292550
27-Mar-24	12.4710000	10.7005250
28-Mar-24	12.9522500	12.2523150
29-Mar-24	13.1760000	12.5172550
30-Mar-24	13.1760000	11.5084750
31-Mar-24	13.1760000	10.8908650
TOTAL	**407.527250**	**321.145695**

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Mar-24	13.1760000	7.7411050
02-Mar-24	13.1760000	7.4528900
03-Mar-24	9.4291250	5.2809050
04-Mar-24	6.5880000	3.6852750
05-Mar-24	10.7560000	6.0136323
06-Mar-24	13.1760000	7.2470400
07-Mar-24	13.1760000	7.4528900
08-Mar-24	13.1760000	8.0910800
09-Mar-24	13.1760000	7.7204950
10-Mar-24	13.1760000	7.3955700
11-Mar-24	13.1760000	8.5851450
12-Mar-24	13.1760000	8.6263450
13-Mar-24	13.1760000	9.8203300
14-Mar-24	13.1760000	9.1410000
15-Mar-24	13.1760000	11.7349400
16-Mar-24	13.1760000	10.0262650
17-Mar-24	13.1760000	9.4086450
18-Mar-24	13.1760000	8.8321850
19-Mar-24	13.1760000	8.4821850
20-Mar-24	13.1760000	7.4734750
21-Mar-24	13.1760000	7.2882100
22-Mar-24	13.1760000	8.0498900
23-Mar-24	13.1760000	7.5497400
24-Mar-24	13.1760000	8.0910950
25-Mar-24	13.1760000	7.2470400
26-Mar-24	13.1760000	7.8645900
27-Mar-24	13.1760000	8.6263500
28-Mar-24	13.1760000	10.6026900
29-Mar-24	9.8697500	7.8213900
30-Mar-24	6.5880000	4.5602124
31-Mar-24	12.0948750	9.1593250
TOTAL	**384.725750**	**247.071930**

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of March'2024

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	132,533.71	-	
b	Coal Opening Rate for the month	Rs/tonne	4,340.89	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	545,126.21	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	540,765.20	-	-
c	Landed Cost of coal	Rs/tonne	4,210.00	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	118.00	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,328.00	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,362.90	-	-
g	Average Price of Coal Received	Rs/tonne			4,362.90
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		673,298.91	-	
b	Average Price of Coal in Stock	Rs/tonne	4,358.57	-	
c	Total Coal Consumed during the month	MT	403,184	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,358.57	
e	Coal Closing Quantity for the month	MT	270,114.91	-	
f	Coal Closing Rate for the month	Rs/tonne	4,358.57	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,650		
b	GCV of coal receipt during the month	kCal/Kg	3,638		
c	Weighted Average GCV of coal	kCal/Kg			3,640
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,555

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	214.766		
2	Value of the opening stock	Rs.	17,416,300.58		
3	Landed cost of Oil (Including Transportation charges)	Rs.	3,516,580.00		
4	Quantity supplied by oil company	KL	48.000		
5	Weighted average per unit secondary fuel cost	Rs./ml			0.07966358
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml	9.4413		
8	Weighted average GCV of oil	kCal/ml			9.4344

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Authorised Signatory

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P.O. Rausar Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
Fax: +91 05842 300003
www.reliancepower.co.in

RECEIPT COAL GCV CERTIFICATE AS RECEIVED BASIC (ARB)					
March-2024					
Date of Receiving	RR No.	RR Qty (MT)	Declared Grade	Wagons No.	As Received Basic (ARB) GCV (kCal/kg)
01.03.24	162001967	4092.00	-	-	3926
01.03.24	162000154	3842.40	-	-	4330
01.03.24	162009092	4090.00	-	-	3112
01.03.24	162000155	4027.90	-	-	4424
02.03.24	162001969	3863.50	-	-	3976
02.03.24	462001415	3598.30	-	-	4319
02.03.24	162000158	4075.10	-	-	4479
03.03.24	142000180	4016.40	-	-	3826
03.03.24	162001555	3855.00	-	-	5250
03.03.24	142000659	4009.90	-	-	3259
03.03.24	142000168	3959.80	-	-	4102
03.03.24	142000660	3954.80	-	-	3616
03.03.24	462001416	4114.60	-	-	4565
04.03.24	142000276	4097.80	-	-	3918
04.03.24	162001228	3838.30	-	-	3710
04.03.24	162009117	4016.50	-	-	3084
04.03.24	162009118	4022.20	-	-	3233
04.03.24	162001972	4026.30	-	-	3807
04.03.24	162009113	3994.90	-	-	3528
05.03.24	162009114	4004.70	-	-	3504
05.03.24	162001973	4042.10	-	-	3922
06.03.24	162004209	3679.90	-	-	3512
06.03.24	162003727	3974.30	-	-	3265
06.03.24	162006205	3987.60	-	-	3991
07.03.24	142000662	4028.40	-	-	3331
07.03.24	142000663	4014.60	-	-	3317
07.03.24	162006206	3991.90	G-8	30	3832
			G-9	28	3127
07.03.24	162001974	4001.70	-	-	3681
07.03.24	162001975	4005.30	-	-	3730

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

08.03.24	162009139	4027.90	-	-	3341
08.03.24	162006208	3998.70	-	-	3562
08.03.24	162001976	4080.70	-	-	3631
09.03.24	162009146	4012.10	-	-	3409
09.03.24	162009147	4034.00	-	-	3448
09.03.24	162006210	4036.50	-	-	3517
09.03.24	152000099	4080.00	-	-	3532
09.03.24	162001558P	3853.10	-	-	4426
09.03.24	162009149	4016.70	-	-	3460
09.03.24	162009150	4086.50	-	-	3465
10.03.24	16006216	3960.60	G-8	30	4421
			G-9	27	3767
11.03.24	152000091K	4098.00	-	-	3764
11.03.24	152000239	4032.90	-	-	3249
11.03.24	152000238	4032.90	-	-	3701
11.03.24	162003757	4013.80	-	-	3418
11.03.24	162009165	4040.10	-	-	3639
12.03.24	162009164	4056.70	-	-	3589
10.03.24	162006216	4049.60	G-8	30	3499
			G-9	28	3518
12.03.24	162004212	4096.00	-	-	3346
13.03.24	162006217	4006.10	G-9	30	3574
			G-10	28	3367
13.03.24	162009173	4010.50	-	-	3231
13.03.24	462001430	4039.00	-	-	4397
13.03.24	162009174	4011.00	-	-	3471
14.03.24	162007269	3985.80	-	-	3885
14.03.24	162007268	4003.70	-	-	3938
14.03.24	162006221	3819.00	G-8	31	3644
			G-10	26	3613
14.03.24	162007270	3906.00	-	-	3964
14.03.24	162009181	4018.90	-	-	3300
14.03.24	162009182	4032.40	-	-	3341
15.03.24	162007271	4089.60	-	-	3883
15.03.24	162006222	4027.30	-	-	3684
15.03.24	162006223	4025.40	-	-	3896
16.03.24	162007272	4072.40	-	-	3317
16.03.24	162006224	4007.40	-	-	4136
16.03.24	162006225	3952.80	G-8	30	3585
			G-9	27	3578
16.03.24	162004213	4032.80	-	-	3336
16.03.24	162001981	4063.20	-	-	3676
17.03.24	162009199	4011.70	-	-	3645

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

K.M. Dey

RELIANCE

17.03.24	162009198	4000.60	-	-	3419
17.03.24	162006228	3929.10	-	-	3119
17.03.24	162001982	3544.70	-	-	3309
18.03.24	162009206	4022.60	-	-	3036
18.03.24	162009205	4022.30	-	-	3082
18.03.24	162006231	3951.70	-	-	3591
19.03.24	162001983	4090.20	-	-	3543
19.03.24	162009215	4028.20	-	-	3316
19.03.24	162009216	4024.10	-	-	3438
19.03.24	462001438	3771.60	-	-	4387
19.03.24	162001559P	3903.00	-	-	5606
19.03.24	162006233	3813.90	G-9	33	3703
			G-10	25	3389
20.03.24	162006235	3810.10	G-8	33	3175
			G-9	25	3228
20.03.24	162006235	3936.20	G-9	30	3930
			G-10	28	3292
20.03.24	162009223	4017.50	-	-	3326
20.03.24	162009222	4025.50	-	-	3101
21.03.24	162009232	4065.90	-	-	2921
22.03.24	162004217	4036.60	-	-	3331
22.03.24	462001443	3990.70	-	-	4472
22.03.24	142000183	3739.70	-	-	3167
22.03.24	162006237	4018.70	G-9	30	3275
			G-10	28	3094
22.03.24	162004218	4121.70	-	-	3373
22.03.24	162009245	4003.50	-	-	3138
22.03.24	162007277	4171.30	-	-	3269
23.03.24	162001986	4041.30	-	-	3293
23.03.24	142000070	4091.30	-	-	3775
23.03.24	162004219	3613.60	-	-	3451
23.03.24	162007278	4056.90	-	-	3464
23.03.24	162009254	4031.60	-	-	3154
23.03.24	162009255	3993.40	-	-	3461
24.03.24	462001446	3967.90	-	-	4370
24.03.24	162001987	3989.40	-	-	3458
24.03.24	162007279	4065.20	-	-	3416
24.03.24	162007281	4017.80	-	-	3445
25.03.24	162009264	4017.70	-	-	3501
25.03.24	162009265	4071.00	-	-	3256
25.03.24	162007282	4074.80	-	-	3372
25.03.24	162002651	4041.10	-	-	4118
25.03.24	462001448	3902.30	-	-	4449
26.03.24	462001449	4001.60	-	-	4397

ROSA FOR SUPPLY COMPANY LIMITED LUCKNOW

K. D. Dey

RELIANCE

26.03.24	162006244	4042.30	G-9 G-10	30 28	3450 3204
27.03.24	162009276	4013.40	-	-	3181
27.03.24	162009275	4001.50	-	-	3035
26.03.24	162001989	3896.80	-	-	3818
29.03.24	462001450	4051.90	-	-	4432
29.03.24	162009281	4011.30	-	-	3298
29.03.24	162009282	4021.40	-	-	3438
30.03.24	162001991	4058.10	-	-	3596
30.03.24	162009287	4026.20	-	-	3386
30.03.24	162009288	4087.90	-	-	3394
30.03.24	162001237	4037.10	-	-	3716
30.03.24	162002652	4026.70	-	-	4111
30.03.24	162009292	4031.00	-	-	3255
30.03.24	162009293	4024.40	-	-	3371
31.03.24	462001452	3981.90	-	-	4500
31.03.24	162006253	3943.30	-	-	3483
31.03.24	162009299	4090.20	-	-	3643
31.03.24	162009298	4049.40	-	-	3418
31.03.24	462001454	3985.10	-	-	4233
31.03.24	162001239	3868.30	-	-	3528
31.03.24	162003884	4000.10	-	-	3309
31.03.24	162002653	4052.80	-	-	4280
31.03.24	162003886	3940.80	-	-	3543
31.03.24	162003885	4032.40	-	-	3227
31.03.24	162009310	4023.60	-	-	3695
31.03.24	162009311	4025.00	-	-	3818
31.03.24	462001456	4074.60	-	-	4541
31.03.24	162003894	4083.80	-	-	3126
31.03.24	162003893	4035.80	-	-	3365
Weighted Average GCV (kCal/Kg)					**3638**

for

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED
LUCKNOW

Ashok Thakur
(O&E)

.....x.....

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

Administrative Block, Hardoi Road,
P.O. Rausar Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
Fax: +91 05842 300003
www.reliancepower.co.in

SECONDARY FUEL (LDO) TEST CERTIFICATE				
March – 2024				
SR. No	Particulars	Receipt Date	Quantity (KL)	GCV (Kcal / ltr.)
1	LDO receipt	21/03/2024	24.00	9441.3
2	LDO receipt	23/03/2024	24.00	9441.3
	Total Receipt		48.00	
	Weighted Average GCV			9441.30

Note:GCV of fuel is reported as per IS 1448-2004.

For

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED
LUCKNOW

Ashok Thakur
(O & E)

RELIANCE

Rosa Power Supply Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

Ref No: Invoice RPSCL/2023-24/Supplementary Invoice/01 10th April 2024

The Superintending Engineer
Electricity Import, Export and Payment Circle
UP Power Corporation Limited
11th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow 226 001

Sub: Provisional Invoice towards the supply of Power from Rosa Power Project

Ref: UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Dear Sir,

We enclose herewith provisional supplementary invoice no. Rosa TPP/ 2023-24/Supplementary Invoice/01 for the month of **March 2024** issued on the basis of UPERC order dated 16.05.2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020.

Please note that the present invoice is without prejudice to any of our claims, rights and entitlements under PPA and law all of which are specifically reserved.

Thanking you

For Rosa Power Supply Company Ltd

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Siddharth Shekhawat)
Authorized Signatory

Enclosures: As above

CC: The DGM (FM), UPPCL Lucknow

Rosa Power Supply Company Ltd.

Administrative Block, Hardoi Road PO Rausar Kothi, Tehsil Sadar, District Shahjahanpur 242406

GSTIN: 09AABCR8917M1ZR, PAN: AABCR8917M

Ref No. - Rosa TPP/2023-24/Supplementary Invoice/01
Billing Period: March 2024
Nature of Bill: Monthly Invoice for Recovery of Fixed and Variable Charges

Bill Date 10/Apr/2024
Due Date 10/May/2024

To,

The Superintending Engineer, Electricty Import, Export and Payment Circle
Uttar Pradesh Power Corporation Ltd, Shakti Bhawan
14, Ashok Marg, Lucknow - 226 001
PAN : AAACU5088M

Without Prejudice
Invoice Rosa TPP

Subject: Invoice for Charges Payable by UPPCL for the month of March 2024

Reference: Amended and Reinstated Power Purchase Agreement (PPA) dated 12.11.2006 and all its amendments.
UPERC Order dated 16.05.2023 approving Multi-Year Tariff of Rosa TPP for FY 2019-20 to FY 2023-24.

Details of Charges Payable by UPPCL During The Billing Period

S. No.	Description	Energy (kWh)	Amount (Rs.)	Source
1	Total Fixed Charges Payable by UPPCL for the Billing Period	792,253,000	957,783,333	Fixed Charges Details (Annexure 1)
2	Total Variable Charges Payable by UPPCL for the Billing Period	568,217,625	1,883,706,711	Variable Charges Details (Annexure 2)
3	Total Amount Payable by UPPCL for the Billing Period		2,841,490,044	
4	Total Amount Already Billed During Billing Period		2,828,923,971	Rosa TPP/2023-24/Invoice/12
5	Total Amount Payable by UPPCL for the Billing Period		**12,566,073**	

Amount In Words : Rupees One Crore Twenty Five Lacs Sixty Six Thousand Seventy Three Only

Note:

1 Payments shall be made in the favour of **Rosa Power Supply Company Ltd, A/c No : 1001103000002615,**
(IDBI Bank Cuffe Parade WTC Branch, IFSC Code: IBKL0001001)

Annexures:

1 Details of fixed charges recoverable during the billing period
2 Details of variable charges recoverable during the billing period
3 Details of Declared Capacity and Scheduled Generation as per Schedule Issued by UP SLDC
4 Details of Adjustment in VC for the month of Feb 2024 due to revised GCV on TPSA Values

Authorized Signatory

LUCKNOW

(Siddharth Shekhawat)

Details of Fixed Charges Payable by UPPCL

S. No.	Description	Units	Value	Source
			March-24	
1	Energy as per Declared Capacity of the Billing Period for Phase I(As per the DC issued by RPSCL)	kWh	407,527,250	Annexure 3
2	Energy as per Declared Capacity of the Billing Period for Phase II (As per the DC issued by RPSCL)	kWh	384,725,750	Annexure 3
3	Total Energy Considered for Fixed Charges Calculation	kWh	792,253,000	(3 = 1 + 2)
4	No. of Days in Billing Period	Days	31	
5	Availability Factor for the Billing Period	%	96.98%	
6	Annual Fixed Charges approved by UPERC for FY 2023-24	(Rs)	11,493,400,000	UPERC MYT order dated 16/05/2023 and corrigendum dated 22.05.2023 in petition no 1578 of 2020
7	Monthly Fixed Charges	(Rs)	957,783,333	
8	Cumulative Fixed Charges Year Till End of Billing Period	(Rs)	11,493,400,000	
9	Cumulative energy as per Declared Capacity Year Till End of Billing Period	kWh	9,066,645,990	
10	Days in the current tariff year	Days	366	
11	Cumulative Availability as per Declared Capacity Year Till End of Billing Period	%	94.01%	
12	Cumulative Fixed Charges recoverable Year Till End of Billing Period	(Rs)	11,493,400,000	
13	Fixed Charges already billed Till Date	(Rs)	10,535,616,667	
14	**Fixed Charges recoverable in this bill**	**(Rs)**	**957,783,333**	

Note:
1) The invoice towards Deemed Energy due to grid disturbance/transmission line tripping and incentive will be raised separately.

Formula For Availability Calculation: $\frac{\text{Declared Capacity}}{1200 \times 24 \times (\text{No. of Days}) \times (100\% - \%\text{Auxiliary Consumption}) \times 1000}$

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa TPP	Billing Period: March 2024	Annexure 2

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Scheduled Energy For Rosa TPP Phase I (As per the schedule issued by UP SLDC)	kWh	321,145,695	Annexure 3
2	Scheduled Energy For Rosa TPP Phase II (As per the schedule issued by UP SLDC)	kWh	247,071,930	Annexure 3
3	**Total Scheduled Energy for the Station**	**kWh**	568,217,625	
4	Energy Charge Rate (ECR)	(Rs)	**3.293**	Table: Energy Charge Calculation
5	Total Variable Charges calculated for the billing period	(Rs)	1,871,140,638	
6	VC Adjustment on account of TPSA GCV Values (unloading end) - Feb'24	(Rs)	12,566,073	
7	Total Variable Charges Recoverable during the billing period (5+6)	(Rs)	1,883,706,711	
8	Effective ECR for the Billing Period	(Rs)	**3.315**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.35806	Annexure 2A
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	568217625	Schedule Issued by UPPTCL
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3555	Annexure 2A
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.4344	Monthly Average (Annexure 2B)
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.07966358	Annexure 2B
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.293	Calculated as per formula in Generation Regulation 2019

Note:

ECR is calculated considering weighted average As Received GCV of Primary fuel in KCal/Kg less 85KCal/Kg on account of variation during storage and CV of Secondary fuel in KCal/ml as per UPERC tariff regulation 2019.

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

M. S. Sethi & Associates
Chartered Accountants

Manoj Sethi
B.Com., F.C.A

191-R, Cavel Cross Lane No.9
2nd Floor, Dr. Viegas Street
Kalbadevi, Mumbai - 400 002
Tel. 93245 17501

CERTIFICATE

The Management of Rosa Power Supply Company Limited having office at Reliance Centre, Ground Floor, 19 Walchand Hirachand Marg, Ballard Estate, Mumbai - 400001 (the Company) has prepared a Statement containing details of primary fuel cost, secondary fuel cost, the weighted average price of Coal and weighted average gross calorific value of Coal and Oil for its Rosa Power Station, Shahjahanpur, Uttar Pradesh for the month of March 2024 as per Annexure 2A, 2B annexed herewith.

The preparation of the accompanying Statement is the responsibility of the Management of the Company including creation and maintenance of all accounting and other records supporting its contents. This responsibility includes designing, implementing and maintaining internal control relevant to the preparation and presentation of the Statement and applying an appropriate basis that is reasonable in the circumstances. The Management is also responsible for maintenance of such relevant records as prescribed by applicable laws and ensuring that the Company complies with the requirements of Uttar Pradesh Power Corporation Limited and for providing all relevant information.

Our responsibility, for the purpose of this Certificate, is limited to examination of relevant records of the Company necessary for this purpose. We conducted our examination of the Statement in accordance with the Guidance Note on Reports or Certificates for Special Purposes issued by the Institute of Chartered Accountants of India (ICAI). The Guidance Note requires that we comply with the ethical requirements of the Code of Ethics issued by ICAI. We have complied with the relevant applicable requirements of the Standard on Quality Control (SQC) 1, Quality Control for Firms that Perform Audits and Reviews of Historical Financial Information and Other Assurance and Related Services Engagements.

We have examined the relevant Statement provided by the Company on the basis of relevant records maintained. Based on our examination and as per the information and explanations given to us, we confirm that the Statement is in agreement with the records of the Company and fairly presents, in all material respects, the details of primary fuel cost, secondary fuel cost, the weighted average price of Coal and weighted average gross calorific value of Coal and Oil for the month of March 2024 as per Annexure 2A, 2B attached herewith.

The certificate is issued at the request of the Company for submitting to Uttar Pradesh Power Corporation Limited and should not be used by any other person for any other purpose. Accordingly, we do not accept or assume any liability or any duty of care for any other purpose or to any other person to whom this certificate is shown or into whose hands it may come without our prior consent in writing.

For **M.S. Sethi & Associates**
Chartered Accountants
Regn.No.109407W

Manoj Sethi
Proprietor
Membership No.039784

Place: Mumbai
Date: 08.04.2024
UDIN: 24039784BKASDG3090

M. S. SETHI & ASSOCIATES BOMBAY Chartered Accountants

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of March'2024

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	1,32,533.71	-	
b	Coal Opening Rate for the month	Rs/tonne	4,340.89	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	5,45,126.21	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	5,40,765.20	-	-
c	Landed Cost of coal	Rs/tonne	4,206.09	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	121.28	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,327.37	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,362.27	-	-
g	Average Price of Coal Received	Rs/tonne			4,362.27
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		6,73,298.91	-	
b	Average Price of Coal in Stock	Rs/tonne	4,358.06	-	
c	Total Coal Consumed during the month	MT	4,03,184	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,358.06	
e	Coal Closing Quantity for the month	MT	2,70,114.91	-	
f	Coal Closing Rate for the month	Rs/tonne	4,358.06	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,650		
b	GCV of coal receipt during the month	kCal/Kg	3,638		
c	Weighted Average GCV of coal	kCal/Kg			3,640
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,555

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	214.766		
2	Value of the opening stock	Rs.	1,74,16,300.58		
3	Landed cost of Oil (Including Transportation charges)	Rs.	35,16,580.00		
4	Quantity supplied by oil company	KL	48.000		
5	Weighted average per unit secondary fuel cost	Rs./ml			0.07966358
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml	9.4413		
8	Weighted average GCV of oil	kCal/ml			9.4344

Rosa Power Supply Company Limited

Mantu Kumar Ghosh
Additional Vice President

ROSA POWER SUPPLY COMPANY LIMITED

S. B. SETHI & ASSOCIATES
Chartered Accountants

ROSA POWER SUPPLY COMPANY LIMITED
LUCKNOW

Annexure 3

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Mar-24	13.1760000	8.7498700
02-Mar-24	13.1760000	7.5558150
03-Mar-24	13.1760000	8.0292900
04-Mar-24	13.1760000	9.0998300
05-Mar-24	13.1760000	8.0087450
06-Mar-24	13.1760000	7.3705500
07-Mar-24	13.1760000	8.7498650
08-Mar-24	13.1760000	10.8085650
09-Mar-24	13.1760000	11.6114200
10-Mar-24	13.1760000	10.5615250
11-Mar-24	13.1760000	11.7555150
12-Mar-24	13.1760000	12.1467250
13-Mar-24	13.1760000	12.4348850
14-Mar-24	13.1760000	12.4349000
15-Mar-24	13.1760000	12.6407400
16-Mar-24	13.1760000	12.1055350
17-Mar-24	13.1760000	11.1585500
18-Mar-24	13.1760000	11.8584550
19-Mar-24	13.1760000	10.8291900
20-Mar-24	13.1760000	9.2233350
21-Mar-24	13.1760000	8.0087150
22-Mar-24	13.1760000	10.1085500
23-Mar-24	13.1760000	10.6850300
24-Mar-24	13.1760000	10.1703300
25-Mar-24	13.1760000	8.4410750
26-Mar-24	13.1760000	8.7292550
27-Mar-24	12.4710000	10.7005250
28-Mar-24	12.9522500	12.2523150
29-Mar-24	13.1760000	12.5172550
30-Mar-24	13.1760000	11.5084750
31-Mar-24	13.1760000	10.8908650
TOTAL	407.527250	321.145695

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Mar-24	13.1760000	7.7411050
02-Mar-24	13.1760000	7.4528900
03-Mar-24	9.4291250	5.2809050
04-Mar-24	6.5880000	3.6852750
05-Mar-24	10.7560000	6.0136323
06-Mar-24	13.1760000	7.2470400
07-Mar-24	13.1760000	7.4528900
08-Mar-24	13.1760000	8.0910800
09-Mar-24	13.1760000	7.7204950
10-Mar-24	13.1760000	7.3955700
11-Mar-24	13.1760000	8.5851450
12-Mar-24	13.1760000	8.6263450
13-Mar-24	13.1760000	9.8203300
14-Mar-24	13.1760000	9.1410000
15-Mar-24	13.1760000	11.7349400
16-Mar-24	13.1760000	10.0262650
17-Mar-24	13.1760000	9.4086450
18-Mar-24	13.1760000	8.8321850
19-Mar-24	13.1760000	8.4821850
20-Mar-24	13.1760000	7.4734750
21-Mar-24	13.1760000	7.2882100
22-Mar-24	13.1760000	8.0498900
23-Mar-24	13.1760000	7.5497400
24-Mar-24	13.1760000	8.0910950
25-Mar-24	13.1760000	7.2470400
26-Mar-24	13.1760000	7.8645900
27-Mar-24	13.1760000	8.6263500
28-Mar-24	13.1760000	10.6026900
29-Mar-24	9.8697500	7.8213900
30-Mar-24	6.5880000	4.5602124
31-Mar-24	12.0948750	9.1593250
TOTAL	384.725750	247.071930

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

TPSA Credit/ Debit Note | Billing Period: Feb 2024 | Annexure 4

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Total Schedule Energy for the Station	kWh	546,350,979	Annexure 3
2	Revised Energy Charge Rate as per GCV calculated from TPSA Values	Rs/ kWh	3.295	Table: Energy Charge Calculation
3	**Total billing Charges Recoverable for the Billing Period**	(Rs)	**1,800,226,476**	
4	Total Variable Charges already recovered	(Rs)	1,787,660,403	Ref No. - Rosa TPP/2023-24/Invoice/11
5	Total Variable Charges billed to UPPCL for the Billing Period	(Rs)	**12,566,073**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.34089	
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	546350979	
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3539	
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.43	
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFi	Rs/ ml	0.08109431	
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFi +LC x LPL) x 100 / (100-Aux)**	Rs	3.295	

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of February'2024 with revised GCV as per TPSA report

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	56,728.69	-	
b	Coal Opening Rate for the month	Rs/tonne	4,322.11	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	450,615.95	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	447,011.02	-	-
c	Landed Cost of coal	Rs/tonne	4,192.36	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	116.16	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,308.52	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,343.27	-	-
g	Average Price of Coal Received	Rs/tonne			4,343.27
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		503,739.71	-	
b	Average Price of Coal in Stock	Rs/tonne	4,340.89	-	
c	Total Coal Consumed during the month	MT	371,206	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,340.89	
e	Coal Closing Quantity for the month	MT	132,533.71	-	
f	Coal Closing Rate for the month	Rs/tonne	4,340.89	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,691		
b	GCV of coal receipt during the month	kCal/Kg	3,615		
c	Weighted Average GCV of coal	kCal/Kg			3,624
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,539

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	225.266		
2	Value of the opening stock	Rs.	18,267,790.84		
3	Landed cost of Oil (Including Transportation charges)	Rs.			
4	Quantity supplied by oil company	KL			
5	Weighted average per unit secondary fuel cost	Rs./ml			0.08109431
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml	-		
8	Weighted average GCV of oil	kCal/ml			9.4329

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Authorised Signatory

RPSCL ROSA LAB RESULTS

RAKE COAL RESULT FEBRUARY 2024

Date of Receiving	Rake No.	Unique Sample ID	COAL SOURCE	RR No.	RR Qty (MT)	Demurrage Charges	Wagon Qty.	GCV	COTECNA RESULTS					
									ADB	ARB	Equilibrium Moisture	Equilibrated Ash (60% RH & 40 Temp.)	Equilibrated GCV (60% RH & 40 Temp.)	ARB
									M	TM				GCV
								Kcal/kg	%	%	%	%	Kcal/Kg	Kcal/kg
-01.02.24	1	RPSCL/23-24/01-L-01/0982	SLSP	162008879	4018.20	-	-	3503						3503
01.02.24	2	RPSCL/23-24/02-L-02/0983	SLSP	162008880	4016.70	-	-	3306						3306
01.02.24	3	RPSCL/23-24/03-L-03/0984	NUGP	162000100	4009.30	-	-	3862						3862
02.02.24	4	RPSCL/23-24/04-L-04/0985	SLSP	162008888	3969.50	-	-	3367						3367
02.02.24	5	RPSCL/23-24/05-L-05/0986	SLSP	162008889	3992.10	-	-	3469						3469
02.02.24	6	RPSCL/23-24/06-L-01/0987/01	NUGP	162000102	4087.30	-	-	3486	2.32	8.52	2.45	48.69	3569	3347
03.02.24	7	RPSCL/23-24/07-L-02/0988/02	RDML	162001938	3997.10	-	-	3698	4.62	11.10	4.70	37.27	4032	3761
03.02.24	8	RPSCL/23-24/08-L-03/0989/03	SLSP	162008897	4029.70	-	-	3068	2.10	13.56	2.58	48.22	3487	3094
03.02.24	9	RPSCL/23-24/09-L-04/0990/04	SLSP	162008896	4022.00	-	-	3305	2.35	14.73	2.44	44.64	3810	3330
03.02.24	10	RPSCL/23-24/10-L-05/0991/05	NUGP	162000105	3968.20	-	-	4280	2.04	9.53	1.84	37.23	4684	4364
04.02.24	11	RPSCL/23-24/11-L-06/0992/06	SLSP	162008905	4016.60	-	-	3206	2.61	13.56	2.48	46.94	3730	3306
04.02.24	12	RPSCL/23-24/12-L-07/0993/07	SLSP	162008904	3977.70	-	-	3046	2.12	13.60	2.20	50.45	3462	3059
04.02.24	13	RPSCL/23-24/13-L-08/0994/08	SLSP	162008903	4015.90	-	-	3365	2.05	11.63	2.11	46.24	3740	3376
04.02.24	14	RPSCL/23-24/14-L-09/0995/09	SLSP	162008907	4014.60	-	-	3166	2.55	15.32	2.24	47.78	3698	3201
05.02.24	15	RPSCL/23-24/15-L-10/0996/10	RDML	162001939	4043.20	-	-	3646	4.68	12.23	4.55	38.67	3967	3648
05.02.24	16	RPSCL/23-24/16-L-11/0997/11	NUGP	162000106	4041.90	-	-	3898	1.85	12.62	1.74	40.93	4371	3891
05.02.24	17	RPSCL/23-24/17-L-12/0998/12	RDML	162001941	4083.00	-	-	3276	6.74	17.35	6.58	39.75	3651	3230
05.02.24	18	RPSCL/23-24/18-L-13/0999/13	DCSK	162002641	3964.00	-	-	4710	7.02	17.32	6.58	20.44	5169	4575
06.02.24	19	RPSCL/23-24/19-L-14/1000/14	SLSP	162008914	3990.40	-	-	3261	3.12	16.85	2.94	45.89	3735	3200
06.02.24	20	RPSCL/23-24/20-L-15/1001/15	SLSP	162008915	4016.70	-	-	2949	8.40	16.12	8.28	49.48	3424	2970
06.02.24	21	RPSCL/23-24/21-L-16/1002/16	KASN	162004201	4087.50	-	-	3929	5.20	12.66	5.32	35.57	4215	3892
06.02.24	22	RPSCL/23-24/22-L-17/1003/17	RDML	162001943	4024.80	-	-	3979	5.88	14.13	5.62	31.44	4470	4067
06.02.24	23	RPSCL/23-24/23-L-18/1004/18	NUGP	162000107	4060.40	-	-	4277	2.02	12.64	2.12	36.20	4779	4265
07.02.24	24	RPSCL/23-24/24-L-19/1005/19	SLSP	162008924	3963.20	-	-	3144	2.16	16.25	2.04	47.00	3634	3107
07.02.24	25	RPSCL/23-24/25-L-20/1006/20	SLSP	162008923	3971.40	-	-	3070	2.90	13.78	3.04	49.37	3420	3041
07.02.24	26	RPSCL/23-24/26-L-21/1007/21	SLSP	162008929	4017.80	-	-	3310	2.45	13.81	2.54	45.84	3742	3309
07.02.24	27	RPSCL/23-24/27-L-22/1008/22	NUGP	162000002	4054.90	-	-	4285	1.58	8.56	1.44	37.76	4619	4285
07.02.24	28	RPSCL/23-24/28-L-23/1009/23	CCSR	162007236	3843.80	-	-	3313	3.75	9.66	4.10	43.68	3423	3224
08.02.24	29	RPSCL/23-24/29-L-24/1010/24	RDML	162001947	3873.00	-	-	3776	5.10	13.15	5.25	35.64	4151	3805
08.02.24	30	RPSCL/23-24/30-L-25/1011/25	RDML	162001948	4052.20	-	-	3542	6.12	13.23	6.02	37.49	3995	3689
09.02.24	31	RPSCL/23-24/31-L-26/1012/26	SLSP	162008938	4005.00	-	-	2835	2.77	10.79	2.65	54.01	3014	2762
09.02.24	32	RPSCL/23-24/32-L-27/1013/27	SLSP	162008937	4032.80	-	-	3093	2.64	13.68	2.60	47.70	3506	3114
09.02.24	33	RPSCL/23-24/33-L-28/1014/28	DCSK	162002643	4036.30	-	-	4507	7.10	15.64	6.60	20.76	5178	4677
09.02.24	34	RPSCL/23-24/34-L-29/1015/29	SLSP	162008936	3695.30	-	-	3111	3.22	13.80	3.18	47.33	3573	3182
10.02.24	35	RPSCL/23-24/35-L-30/1016/30	SLSP	162008947	4025.00	-	-	3296	3.54	13.28	2.78	45.96	3795	3385
10.02.24	36	RPSCL/23-24/36-L-31/1017/31	SLSP	162008946	4025.40	-	-	3240	3.96	14.71	3.25	45.84	3695	3257
10.02.24	37	RPSCL/23-24/37-L-32/1018/32	CCSR	162007241	4039.30	-	-	3396	4.22	10.83	4.55	43.41	3550	3324
11.02.24	38	RPSCL/23-24/38-L-33/1019/33	SLSP	162008953	4046.00	-	-	2950	2.84	16.49	3.02	48.93	3419	2979
11.02.24	39	RPSCL/23-24/39-L-34/1020/34	SLSP	162008954	4017.60	-	-	2733	3.31	14.05	3.05	52.62	3033	2869
11.02.24	40	RPSCL/23-24/40-L-35/1021/35	NUGP	162000003	3461.60	-	-	4265	3.12	9.35	2.45	37.51	4657	4328
11.02.24	41	RPSCL/23-24/41-L-36/1022/36	PSJA	162001552	3531.70	-	-	4693	1.10	4.86	1.04	37.40	4938	4747
12.02.24	42	RPSCL/23-24/42-L-37/1023/37	SLSP	162008959	4016.50	-	-	3021	2.94	13.51	3.04	48.40	3385	3019
12.02.24	43	RPSCL/23-24/43-L-38/1024/38	CCSR	162007242	3687.80	-	-	3270	4.10	12.40	4.22	43.75	3530	3228
12.02.24	44	RPSCL/23-24/44-L-39/1025/39	CHRI	462001390	3900.30	-	-	4314	2.23	5.62	2.40	41.23	4580	4434
12.02.24	45	RPSCL/23-24/45-L-40/1026/40	CCSR	162007243	4018.00	-	-	3370	3.63	12.40	3.84	41.99	3634	3311
12.02.24	46	RPSCL/23-24/46-L-41/1027/41	RDML	162001953	3947.20	-	-	4211	1.12	15.30	1.24	42.51	4505	3863
12.02.24	47	RPSCL/23-24/47-L-42/1028/42	NUGP	162000115	3925.40	-	-	4098	2.84	9.10	2.42	38.79	4490	4183
12.02.24	48	RPSCL/23-24/48-L-43/1029/43	SLSP	162000237	4026.50	-	-	3014	3.49	14.60	3.52	48.60	3423	3033
12.02.24	49	RPSCL/23-24/49-L-44/1030/44	JRGD	162001222	4011.60	-	-	4000	1.02	5.30	1.12	44.89	4161	3965
13.02.24	50	RPSCL/23-24/50-L-45/1031/45	SLSP	162008965	4025.50	-	-	3077	2.63	14.60	2.42	47.15	3542	3103
13.02.24	51	RPSCL/23-24/51-L-46/1032/46	SLSP	162008964	4035.90	-	-	3007	3.45	14.80	3.11	48.98	3496	2995
13.02.24	52	RPSCL/23-24/52-L-47/1033/47	RDML	162001952	4079.80	-	-	4124	5.28	14.70	6.04	37.89	4174	3790
13.02.24	53	RPSCL/23-24/53-L-48/1034/48	DCSK	162002644	3835.40	-	-	4518	7.04	17.20	6.85	22.68	5051	4490
14.02.24	54	RPSCL/23-24/54-L-49/1035/49	SLSP	162008970	4016.90	-	-	3213	3.54	13.20	3.18	46.54	3624	3249
14.02.24	55	RPSCL/23-24/55-L-50/1036/50	CCSR	162007245	4083.10	-	-	2884	4.25	12.22	4.70	50.01	2870	2644
14.02.24	56	RPSCL/23-24/56-L-51/1037/51	SLSP	162008969	4011.20	-	-	2791	3.48	15.05	2.94	51.06	3158	2764
14.02.24	57	RPSCL/23-24/57-L-52/1038/52	NUGP	162000117	4032.30	-	-	3991	1.90	12.80	2.02	50.64	4327	3851
14.02.24	58	RPSCL/23-24/58-L-53/1039/53	NUGP	162000119	4001.20	-	-	4377	1.80	14.03	2.10	34.84	4648	4257
15.02.24	59	RPSCL/23-24/59-L-54/1040/54	NUGP	162000121	4019.80	-	-	3576	2.25	16.80	2.14	45.71	3929	3260
15.02.24	60	RPSCL/23-24/60-L-55/1041/55	RDML	162001958	3998.90	-	-	3633	5.63	13.60	5.04	37.46	4162	3787
16.02.24	61	RPSCL/23-24/61-L-56/1042/56	CHRI	462001395	4081.00	-	-	4445	1.23	4.46	1.35	41.99	4517	4374
16.02.24	62	RPSCL/23-24/62-L-57/1043/57	RDML	162001959	4024.20	-	-	3794	5.62	11.29	5.24	36.95	4142	3877
16.02.24	63	RPSCL/23-24/63-L-58/1044/58	CCSR	162007246	3977.60	-	-	3497	5.14	13.05	4.90	39.12	3770	3446
16.02.24	64	RPSCL/23-24/64-L-59/1045/59	SLSP	162008985	4029.00	-	-	2713	3.63	16.05	2.95	53.98	3116	2695
16.02.24	65	RPSCL/23-24/65-L-60/1046/60	SLSP	162008986	4008.20	-	-	2746	7.45	14.98	6.75	62.11	3133	2857
17.02.24	66	RPSCL/23-24/66-L-61/1047/61	SLSP	162008989	4029.20	-	-	2921	3.12	14.10	2.84	49.69	3338	2951
17.02.24	67	RPSCL/23-24/67-L-62/1048/62	SLSP	162008988	4018.80	-	-	2964	3.10	13.10	2.96	50.35	3315	2988
17.02.24	68	RPSCL/23-24/68-L-63/1049/63	RDML	162001960	3940.60	-	-	3680	5.65	12.50	5.30	37.59	3977	3674

ROSA POWER SUPPLY COMPANY LIMITED

18.02.24	69	RPSCL/23-24/69-L-64/1050/64	DCSK	162002646	4010.90	-	-	4406	7.20	17.60	6.84	22.54	5082	4495
18.02.24	70	RPSCL/23-24/70-L-65/1051/65	CCSR	162007247	3811.20	-	-	4339	5.89	13.50	5.85	28.31	4576	4204
18.02.24	71	RPSCL/23-24/71-L-66/1052/66	SLSP	162008997	4021.00	-	-	3085	3.22	13.80	3.01	49.43	3409	3030
18.02.24	72	RPSCL/23-24/72-L-67/1053/67	KASN	162004204	3969.30	-	-	3597	5.55	12.20	4.20	39.96	3981	3649
19.02.24	73	RPSCL/23-24/73-L-68/1054/68	CHRI	462001399	4056.00	-	-	4430	1.02	4.20	1.14	42.05	4578	4437
19.02.24	74	RPSCL/23-24/74-L-69/1055/69	NUGP	162000128	4003.90	-	-	4064	2.03	9.60	1.88	40.11	4429	4085
19.02.24	75	RPSCL/23-24/75-L-70/1056/70	SLSP	162009002	4040.80	-	-	3016	2.74	16.30	2.75	38.65	3608	3019
19.02.24	76	RPSCL/23-24/76-L-71/1057/71	SLSP	162009003	4083.50	-	-	3047	3.55	14.20	3.74	50.01	3238	2886
19.02.24	77	RPSCL/23-24/77-L-72/1058/72	NUGP	162000130	4027.00	-	-	3887	2.10	8.50	2.30	42.43	4160	3896
20.02.24	78	RPSCL/23-24/78-L-73/1059/73	SLSP	162009012	4020.20	-	-	3328	3.95	14.50	2.75	51.38	3267	2873
20.02.24	79	RPSCL/23-24/79-L-74/1060/74	SLSP	162009011	4039.60	-	-	3040	2.06	14.90	2.92	49.35	3419	2997
20.02.24	80	RPSCL/23-24/80-L-75/1061/75	NUGP	162000132	4025.70	-	-	4464	1.62	9.30	2.09	34.94	4879	4519
20.02.24	81	RPSCL/23-24/81-L-76/1062/76	CCSR	162007249	3982.90	-	-	4151	5.74	12.50	6.51	31.64	4572	4279
21.02.24	82	RPSCL/23-24/82-L-77/1063/77	SLSP	162009020	3928.70	-	-	3154	2.35	14.20	2.77	47.42	3810	3185
21.02.24	83	RPSCL/23-24/83-L-78/1064/78	SLSP	162009019	3906.60	-	-	3183	2.37	16.70	3.07	45.79	3767	3229
21.02.24	84	RPSCL/23-24/84-L-79/1065/79	DCSK	162002647	3819.00	-	-	4367	5.94	18.50	6.88	22.55	5041	4412
21.02.24	85	RPSCL/23-24/85-L-80/1066/80	NUGP	162000135	4031.10	-	-	4164	1.27	8.70	2.05	39.00	4467	4154
21.02.24	86	RPSCL/23-24/86-L-81/1067/81	KASN	162004205	3939.00	-	-	3778	3.14	11.10	4.62	38.84	4047	3772
22.02.24	87	RPSCL/23-24/87-L-82/1068/82	CHRI	462001403	3880.60	-	-	3795	0.29	5.30	0.89	48.57	3995	3817
22.02.24	88	RPSCL/23-24/88-L-83/1069/83	RDML	162000098	3948.20	-	-	3856	4.04	13.50	5.32	35.31	4270	3901
22.02.24	89	RPSCL/23-24/89-L-84/1070/84	SLSP	162009032	3916.40	-	-	3184	2.11	16.80	3.05	46.61	3612	3100
22.02.24	90	RPSCL/23-24/90-L-85/1071/85	NUGP	162000137	4068.70	-	-	4209	1.04	11.20	1.96	37.94	4816	4181
23.02.24	91	RPSCL/23-24/91-L-86/1072/86	NUGP	162000140	4009.60	-	-	4432	1.10	8.80	2.01	36.46	4791	4468
23.02.24	92	RPSCL/23-24/92-L-87/1073/87	CCSR	162007251	3786.50	-	-	3399	5.55	10.80	4.69	42.69	3664	3428
24.02.24	93	RPSCL/23-24/93-L-88/1074/88	SLSP	162009041	4024.80	-	-	3192	2.78	15.10	2.51	46.03	3711	3232
24.02.24	94	RPSCL/23-24/94-L-89/1075/89	CCSR	162007253	3700.40	-	-	3761	3.95	11.50	4.14	41.70	3579	3304
24.02.24	95	RPSCL/23-24/95-L-90/1076/90	RDML	162001962	4011.60	-	-	3808	4.82	11.80	4.52	36.02	4270	3945
24.02.24	96	RPSCL/23-24/96-L-91/1077/91	CCSR	162007252	3972.80	-	-	3984	3.78	12.20	3.91	41.79	3537	3232
24.02.24	97	RPSCL/23-24/97-L-92/1078/92	CCSR	162007254	3994.00	-	-	3969	4.10	12.50	4.29	39.90	3764	3460
25.02.24	98	RPSCL/23-24/98-L-93/1079/93	RDML	162001963	4024.40	-	-	3839	4.98	12.70	4.72	38.34	4203	3851
25.02.24	99	RPSCL/23-24/99-L-94/1080/94	NUGP	162000143	3868.10	-	-	4505	1.38	8.80	1.41	34.97	4611	4459
26.02.24	100	RPSCL/23-24/100-L-95/1081/95	CHRI	462001408	3961.00	-	-	4442	4.82	11.70	4.82	40.10	4077	3783
26.02.24	101	RPSCL/23-24/101-L-96/1082/96	SLSP	162009046	4024.80	-	-	3192	2.42	13.00	2.57	46.45	3686	3274
26.02.24	102	RPSCL/23-24/102-L-97/1083/97	RDML	162001964	4046.60	-	-	4163	4.74	14.70	4.62	35.80	4223	3777
26.02.24	103	RPSCL/23-24/103-L-98/1084/98	RDML	162001965	3806.10	-	-	3625	4.96	16.20	6.04	36.15	4132	3686
27.02.24	104	RPSCL/23-24/104-L-99/1085/99	NUGP	162000146	3981.40	-	-	4399	1.78	9.60	1.82	36.26	4765	4392
27.02.24	105	RPSCL/23-24/105-L-100/1086/100	KASN	162004207	4020.20	-	-	3853	3.81	11.80	4.09	37.61	4183	3847
27.02.24	106	RPSCL/23-24/106-L-101/1087/101	RDML	162001966	4093.10	-	-	3795	4.67	12.50	5.80	35.62	4115	3822
28.02.24	107	RPSCL/23-24/107-L-102/1088/102	DCSK	162002649	3910.00	-	-	4681	6.29	17.20	7.14	19.71	5240	4672
28.02.24	108	RPSCl /23-24/108-L-103/1089/103	SLSP	162009075	4020.20	-	-	3146	2.02	15.10	2.53	46.46	3625	3158
28.02.24	109	RPSCL/23-24/109-L-104/1090/104	SLSP	162009076	4087.40	-	-	3317	2.47	16.50	3.10	44.07	3828	3299
28.02.24	110	RPSCL/23-24/110-L-105/1091/105	NUGP	162000149	4041.70	-	-	5043	1.49	9.60	2.00	28.15	5547	5122
28.02.24	111	RPSCL/23-24/111-L-106/1092/106	NUGP	162000150	4023.10	-	-	4116	1.48	8.60	2.10	40.08	4381	4095
29.02.24	112	RPSCL/23-24/112-L-107/1093/107	CHRI	462001412	4020.30	-	-	4337	0.76	5.50	1.02	40.92	4603	4395
29.02.24	113	RPSCL/23-24/113-L-108/1094/108	SLSP	162009089	4012.70	-	-	2996	2.19	15.30	2.82	47.77	3405	2966
					[illegible]			3643						2815

ROSA POWER SUPPLY COMPANY LIMITED
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Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 02.02.2024 to 07.02.2024

UNLOADING END ANALYSIS REPORT

Date: 20.03.2024

Test Report No. : IN2402229-001

Name of Coal Company: Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Date of start of analysis: 24.03.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 55%

Temperature of Laboratory (°C): 21°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AR/ DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO./ R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	RPSCL/CCL/NUGP/06-01/0001	02-02-2024	02-02-2024	11-03-2024	4,067.30	162000102	30-01-2024	8.52	2.32	48.85	3574	2.45	48.59	3569	G13
2	RPSCL/CCL/ROMU/07-02/0002	03-02-2024	03-02-2024	11-03-2024	3,997.10	162001938	30-01-2024	11.10	4.62	37.30	4033	4.70	37.27	4032	G11
3	RPSCL/CCL/SLSP/06-03/0003	03-02-2024	03-02-2024	11-03-2024	4,029.70	162006897	30-01-2024	13.56	2.10	48.48	3504	2.58	48.22	3487	G13
4	RPSCL/CCL/SLSP/09-04/0004	03-02-2024	03-02-2024	11-03-2024	4,022.00	162006896	31-01-2024	14.73	2.35	44.68	3814	2.44	44.64	3810	G12
5	RPSCL/CCL/NUGP/10-05/0005	03-02-2024	04-02-2024	11-03-2024	3,968.20	162000105	31-01-2024	8.53	2.04	37.15	4674	1.84	37.23	4684	G9
6	RPSCL/CCL/SLSP/11-06/0006	04-02-2024	04-02-2024	11-03-2024	4,016.60	162006905	31-01-2024	13.56	2.61	46.68	3725	2.48	46.94	3730	G12
7	RPSCL/CCL/SLSP/12-07/0007	04-02-2024	04-02-2024	11-03-2024	3,977.70	162006904	18-01-2024	13.60	2.12	50.49	3486	2.20	50.45	3482	G13
8	RPSCL/CCL/SLSP/13-08/0008	04-02-2024	05-02-2024	11-03-2024	4,015.90	162006906	01-02-2024	11.63	2.05	46.27	3742	2.11	46.24	3740	G12
9	RPSCL/CCL/SLSP/14-09/0009	04-02-2024	05-02-2024	11-03-2024	4,014.60	162006907	01-02-2024	15.32	2.55	47.63	3684	2.24	47.76	3696	G13
10	RPSCL/CCL/ROMU/15-10/0010	05-02-2024	05-02-2024	11-03-2024	4,043.20	162001939	02-02-2024	12.23	4.88	38.82	3962	4.55	38.87	3967	G12
11	RPSCL/CCL/NUGP/16-11/0011	05-02-2024	06-02-2024	11-03-2024	4,041.90	162000106	03-02-2024	12.52	1.85	40.88	4386	1.74	40.93	4371	G10
12	RPSCL/CCL/ROMU/17-12/0012	05-02-2024	06-02-2024	11-03-2024	4,063.00	162001941	03-02-2024	17.35	6.74	39.66	3545	6.58	39.75	3551	G13
13	RPSCL/CCL/DCSK/18-13/0013	05-02-2024	06-02-2024	11-03-2024	3,964.00	162002641	03-02-2024	17.32	7.02	20.34	5145	6.58	20.44	5169	G8
14	RPSCL/CCL/SLSP/19-14/0014	06-02-2024	06-02-2024	11-03-2024	3,990.40	162006914	03-02-2024	16.85	3.12	45.80	3725	2.94	45.89	3735	G12
15	RPSCL/CCL/SLSP/20-15/0015	06-02-2024	06-02-2024	11-03-2024	4,018.70	162006915	03-02-2024	16.12	3.40	49.42	3420	3.28	49.48	3424	G13
16	RPSCL/CCL/KASN/21-16/0016	06-02-2024	06-02-2024	11-03-2024	4,087.50	162004201	03-02-2024	12.56	5.20	35.62	4220	5.32	35.57	4215	G11
17	RPSCL/CCL/ROMU/22-17/0017	06-02-2024	06-02-2024	11-03-2024	4,024.80	162001943	03-02-2024	14.13	5.66	31.35	4458	5.82	31.44	4470	G10
18	RPSCL/CCL/NUGP/23-18/0018	06-02-2024	07-02-2024	11-03-2024	4,060.40	162000107	03-02-2024	12.64	2.02	30.24	4764	2.12	30.20	4779	G9
19	RPSCL/CCL/SLSP/24-19/0019	07-02-2024	07-02-2024	11-03-2024	3,963.20	162006924	04-02-2024	16.25	2.18	46.94	3630	2.04	47.00	3638	G13
20	RPSCL/CCL/SLSP/25-20/0020	07-02-2024	07-02-2024	11-03-2024	3,971.40	162006923	04-02-2024	13.78	2.90	49.44	3425	3.84	49.37	3420	G13

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

[Authorized Signatory]
Cotecna Inspection India Pvt Ltd

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CIN : U 74130 MH 2004 PTC 145842

Delhi

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Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 07.02.2024 to 12.02.2024

UNLOADING END ANALYSIS REPORT

Test Report No.: IN2402229-002

Date: 29.03.2024

Name of Coal Company: Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Date of start of analysis: 25.03.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 56%

Temperatur of Laboratory (°C): 23°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	RPSCL/CCL/SLSP/26-21/0021	07-02-2024	08-02-2024	11-03-2024	4,017.80	162008929	04-02-2024	13.81	2.45	45.88	3745	2.54	45.84	3742	G12
2	RPSCL/CCL/NUGP/27-22/0022	07-02-2024	08-02-2024	11-03-2024	4,054.90	162000002	04-02-2024	8.56	1.58	37.70	4612	1.44	37.75	4613	G9
3	RPSCL/CCL/CCSR/28-23/0023	07-02-2024	08-02-2024	11-03-2024	3,843.80	162007238	04-02-2024	9.66	3.75	43.84	3435	4.10	43.68	3423	G13
4	RPSCL/CCL/ROML/29-24/0024	08-02-2024	08-02-2024	11-03-2024	3,873.00	162001947	05-02-2024	13.15	5.10	35.70	4158	5.25	35.64	4151	G11
5	RPSCL/CCL/ROML/30-25/0025	08-02-2024	09-02-2024	11-03-2024	4,052.20	162001948	05-02-2024	13.23	6.12	37.45	3991	6.02	37.48	3995	G12
6	RPSCL/CCL/SLSP/31-26/0026	09-02-2024	09-02-2024	11-03-2024	4,005.00	162008938	06-02-2024	10.79	2.77	53.94	3010	2.85	54.01	3014	G15
7	RPSCL/CCL/SLSP/32-27/0027	09-02-2024	09-02-2024	11-03-2024	4,032.80	162008937	06-02-2024	13.68	2.64	47.78	3512	2.80	47.70	3509	G13
8	RPSCL/CCL/DCSK/33-28/0028	09-02-2024	09-02-2024	11-03-2024	4,036.30	162002643	06-02-2024	15.64	7.10	20.65	5150	8.60	20.76	5176	G9
9	RPSCL/CCL/SLSP/34-29/0029	09-02-2024	10-02-2024	11-03-2024	3,695.30	162008936	06-02-2024	13.80	3.22	47.31	3572	3.18	47.33	3573	G13
10	RPSCL/CCL/SLSP/35-30/0030	10-02-2024	11-02-2024	11-03-2024	4,025.00	162008947	07-02-2024	13.28	3.54	45.60	3765	2.78	45.65	3795	G12
11	RPSCL/CCL/SLSP/36-31/0031	10-02-2024	11-02-2024	11-03-2024	4,025.40	162008946	07-02-2024	14.71	3.96	45.50	3668	3.25	45.54	3671	G12
12	ROSA/CCSR/CCL/RPSCL/37/0032	10-02-2024	11-02-2024	11-03-2024	4,039.30	162007241	07-02-2024	10.63	4.22	43.56	3552	4.55	43.41	3550	G13
13	ROSA/SLSP/CCL/RPSCL/38/0033	11-02-2024	11-02-2024	11-03-2024	4,046.00	162008953	08-02-2024	15.49	2.84	49.02	3425	3.02	48.93	3419	G13
14	ROSA/SLSP/CCL/RPSCL/39/0034	11-02-2024	11-02-2024	11-03-2024	4,017.60	162008954	07-02-2024	14.05	3.31	52.48	3025	3.05	52.62	3033	G15
15	ROSA/NUGP/CCL/RPSCL/40/0035	11-02-2024	11-02-2024	11-03-2024	3,461.60	142000003	08-02-2024	9.35	3.12	37.25	4625	2.45	37.51	4657	G9
16	ROSA/PSJA/CCL/RPSCL/41/0036	11-02-2024	11-02-2024	11-03-2024	3,531.70	162001552	08-02-2024	4.86	1.10	37.38	4935	1.04	37.40	4938	G9
17	ROSA/SLSP/CCL/RPSCL/42/0037	12-02-2024	12-02-2024	11-03-2024	4,016.50	162008969	08-02-2024	13.51	2.84	48.45	3388	3.04	48.49	3391	G13
18	ROSA/CCSR/CCL/RPSCL/43/0038	12-02-2024	12-02-2024	11-03-2024	3,687.80	162007242	09-02-2024	12.40	4.10	43.80	3534	4.22	43.75	3530	G13
19	ROSA/CHRI/CCL/RPSCL/44/0039	12-02-2024	12-02-2024	11-03-2024	3,900.30	162001390	10-02-2024	5.52	2.23	41.30	4588	2.40	41.23	4580	G9
20	ROSA/CCSR/CCL/RPSCL/45/0040	12-02-2024	12-02-2024	11-03-2024	4,018.00	162007243	11-02-2024	12.40	3.63	42.08	3642	3.64	41.99	3634	G13

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)

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CIN : U 74130 MH 2004 PTC 145842

Cotecna Inspection India Pvt. Ltd. Delhi

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 12.02.2024 to 17.02.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-003

Date: 29.03.2024

Name of Coal Company- Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Date of start of analysis: 25.03.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%):

Temperature of Laboratory (°C):

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/RDML/CCL/RPSCL/48/0041	12-02-2024	13-02-2024	11-03-2024	3,947.20	162001953	10-02-2024	16.30	1.12	42.56	4510	1.24	42.51	4509	G10
2	ROSA/NUGP/CCL/RPSCL/47/0042	12-02-2024	13-02-2024	11-03-2024	3,925.40	162000115	10-02-2024	9.10	2.84	38.62	4471	2.42	38.79	4490	G10
3	ROSA/SLSP/CCL/RPSCL/48/0043	12-02-2024	13-02-2024	11-03-2024	4,028.50	152000237	10-02-2024	14.50	3.49	48.52	3424	3.62	48.50	3423	G13
4	ROSA/JRGD/CCL/RPSCL/49/0044	12-02-2024	13-02-2024	11-03-2024	4,011.60	162001222	10-02-2024	5.30	1.02	44.94	4165	1.12	44.92	4161	G11
5	ROSA/SLSP/CCL/RPSCL/50/0045	13-02-2024	13-02-2024	11-03-2024	4,025.50	162008965	11-02-2024	14.50	2.63	47.05	3534	2.42	47.15	3544	G13
6	ROSA/SLSP/CCL/RPSCL/51/0046	13-02-2024	13-02-2024	11-03-2024	4,035.30	162008984	10-02-2024	14.80	3.45	48.81	3394	3.11	48.88	3400	G14
7	ROSA/RDML/CCL/RPSCL/52/0047	13-02-2024	14-02-2024	11-03-2024	4,079.80	162001952	10-02-2024	14.70	5.28	38.20	4208	6.04	37.89	4174	G12
8	ROSA/DCSK/CCL/RPSCL/53/0048	13-02-2024	14-02-2024	11-03-2024	3,835.40	162002644	10-02-2024	17.20	7.04	22.63	5041	6.85	22.68	5051	G8
9	ROSA/SLSP/CCL/RPSCL/54/0049	14-02-2024	14-02-2024	11-03-2024	4,016.90	162008970	10-02-2024	13.20	3.64	46.37	3611	3.18	45.54	3623	G13
10	ROSA/CCSR/CCL/RPSCL/55/0050	14-02-2024	15-02-2024	11-03-2024	4,083.10	162007245	11-02-2024	12.22	4.25	50.25	2884	4.70	50.01	2870	G15
11	ROSA/SLSP/CCL/RPSCL/56/0051	14-02-2024	15-02-2024	11-03-2024	4,011.20	162008969	11-02-2024	15.05	3.48	50.76	3140	2.94	51.06	3158	G14
12	ROSA/NUGP/CCL/RPSCL/57/0052	14-02-2024	15-02-2024	11-03-2024	4,032.30	162000117	10-02-2024	12.80	1.90	50.70	4332	2.02	50.64	4327	G10
13	ROSA/NUGP/CCL/RPSCL/58/0053	14-02-2024	15-02-2024	11-03-2024	4,001.20	162000119	12-02-2024	14.03	1.80	34.95	4863	2.10	34.84	4848	G9
14	ROSA/NUGP/CCL/RPSCL/59/0054	15-02-2024	15-02-2024	11-03-2024	4,019.80	162000121	12-02-2024	16.80	2.26	45.65	3925	2.14	45.71	3929	G12
15	ROSA/RDML/CCL/RPSCL/60/0055	15-02-2024	16-02-2024	11-03-2024	3,998.90	162001958	12-02-2024	13.60	5.83	37.23	4136	5.04	37.48	4162	G11
16	ROSA/CHR/CCL/RPSCL/61/0056	16-02-2024	16-02-2024	11-03-2024	4,081.00	162001395	12-02-2024	4.46	1.23	42.04	4522	1.35	41.99	4517	G10
17	ROSA/RDML/CCL/RPSCL/62/0057	16-02-2024	16-02-2024	11-03-2024	4,024.20	162001959	11-02-2024	11.29	5.62	36.80	4125	5.24	36.95	4142	G11
18	ROSA/CCSR/CCL/RPSCL/63/0058	16-02-2024	17-02-2024	11-03-2024	3,977.60	162007246	12-02-2024	13.05	5.14	39.02	3760	4.90	39.12	3770	G12
19	ROSA/SLSP/CCL/RPSCL/64/0059	16-02-2024	17-02-2024	11-03-2024	4,029.00	162008985	13-02-2024	16.05	3.63	53.60	3094	2.95	53.98	3116	G15
20	ROSA/SLSP/CCL/RPSCL/65/0060	16-02-2024	17-02-2024	11-03-2024	4,008.20	162008986	13-02-2024	14.96	7.45	51.72	3109	6.75	52.11	3133	G14

Note :

(i) Samples collected as per Bilateral Agreement dated (24.01.2024)

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

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CIN : U 74130 MH 2004 PTC 145842

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

422

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 17.02.2024 to 20.02.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-004

Date: 29.03.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 25.03.2024

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 53%

Temperature of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (96% RH & 40°C)			
					RR. QUANTITY (IN MT)	P.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/SLSP/CCL/RPSCL/66/0061	17-02-2024	17-02-2024	11-03-2024	4,029.20	162008989	14-02-2024	14.10	3.12	49.55	3328	2.84	49.89	3348	G14
2	ROSA/SLSP/CCL/RPSCL/67/0062	17-02-2024	17-02-2024	11-03-2024	4,018.80	162008988	14-02-2024	13.10	3.10	50.26	3310	2.99	50.35	3315	G14
3	ROSA/RDMU/CCL/RPSCL/68/0063	17-02-2024	18-02-2024	11-03-2024	3,948.80	162001990	14-02-2024	12.50	5.65	37.45	3962	5.30	37.59	3979	G12
4	ROSA/DCSK/CCL/RPSCL/69/0064	18-02-2024	18-02-2024	11-03-2024	4,010.90	162002646	14-02-2024	17.80	7.20	22.45	5062	8.94	22.54	5082	G8
5	ROSA/CCSR/CCL/RPSCL/70/0065	18-02-2024	18-02-2024	11-03-2024	3,811.20	162007247	14-02-2024	13.50	5.89	28.30	4574	5.85	28.31	4576	G10
6	ROSA/SLSP/CCL/RPSCL/71/0066	18-02-2024	18-02-2024	11-03-2024	4,021.00	162008997	15-02-2024	13.80	3.22	49.32	3402	3.01	49.43	3409	G13
7	ROSA/KASN/CCL/RPSCL/72/0067	18-02-2024	19-02-2024	11-03-2024	3,969.30	162004204	15-02-2024	12.20	5.55	39.40	3925	4.20	39.56	3951	G12
8	ROSA/CHRI/CCL/RPSCL/73/0068	19-02-2024	19-02-2024	11-03-2024	4,056.00	462001389	15-02-2024	4.20	1.02	42.10	4584	1.14	42.05	4576	G10
9	ROSA/NUGP/CCL/RPSCL/74/0069	19-02-2024	19-02-2024	11-03-2024	4,003.90	162000125	17-02-2024	8.50	2.03	40.05	4422	1.86	40.11	4429	G10
10	ROSA/SLSP/CCL/RPSCL/75/0070	19-02-2024	20-02-2024	11-03-2024	4,040.80	162009002	17-02-2024	16.30	2.74	38.65	3506	2.75	38.65	3508	G13
11	ROSA/SLSP/CCL/RPSCL/76/0071	19-02-2024	20-02-2024	11-03-2024	4,083.50	162009003	17-02-2024	14.20	5.55	50.11	3244	3.74	50.01	3238	G14
12	ROSA/NUGP/CCL/RPSCL/77/0072	19-02-2024	20-02-2024	11-03-2024	4,027.00	162000130	17-02-2024	8.50	2.10	42.82	4169	2.30	42.43	4180	G11

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

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Cotecna Inspection India Pvt Ltd Delhi

LUCKNOW

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 20.02.2024 to 23.02.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-005

Name of Coal Company: Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Date of Start of analysis: 06.03.2024

Product tested: Coal Sample

Date: 29.03.2024

Relative Humidity of Laboratory (%): 53%

Temperature of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO./ R.R. NO.	R.R. DATE		M4 %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equi.)	ASH % (Equi.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/SLSP/CCL/RPSCL/78/0073	20-02-2024	20-02-2024	06-03-2024	4,020.20	162009012	18-02-2024	14.50	3.95	50.74	3227	2.75	51.38	3267	G14
2	ROSA/SLSP/CCL/RPSCL/79/0074	20-02-2024	20-02-2024	06-03-2024	4,039.60	162009011	18-02-2024	14.80	2.06	49.79	3449	2.92	49.35	3419	G13
3	ROSA/NUGP/CCL/RPSCL/80/0075	20-02-2024	21-02-2024	06-03-2024	4,025.70	162000132	18-02-2024	9.30	1.62	35.11	4902	2.09	34.94	4879	G3
4	ROSA/CCSR/CCL/RPSCL/81/0076	20-02-2024	21-02-2024	06-03-2024	3,982.90	162007249	18-02-2024	12.60	5.74	31.90	4610	6.51	31.64	4577	E9
5	ROSA/SLSP/CCL/RPSCL/82/0077	21-02-2024	21-02-2024	06-03-2024	3,928.70	162009020	19-02-2024	14.30	2.35	47.62	3625	2.77	47.42	3610	G13
6	ROSA/DCSK/CCL/RPSCL/83/0078	21-02-2024	21-02-2024	06-03-2024	3,906.60	162009019	19-02-2024	16.70	2.87	46.12	3784	3.07	45.75	3757	G12
7	ROSA/NUGP/CCL/RPSCL/84/0079	21-02-2024	21-02-2024	06-03-2024	3,819.00	162002047	19-02-2024	18.50	5.04	22.78	5092	6.88	22.55	5041	G5
8	ROSA/MGASA/CCL/RPSCL/85/0080	21-02-2024	22-02-2024	06-03-2024	4,031.10	162000136	19-02-2024	8.70	1.27	39.31	4492	2.05	39.09	4457	G10
9	ROSA/CHIRI/CCL/RPSCL/87/0082	22-02-2024	22-02-2024	06-03-2024	3,930.00	162004705	20-02-2024	11.10	3.14	39.44	4110	4.62	38.84	4042	G11
10	ROSA/RDHL/CCL/RPSCL/88/0083	22-02-2024	22-02-2024	06-03-2024	3,880.60	162001403	20-02-2024	5.30	0.29	43.87	4019	0.89	43.57	3995	G11
11	ROSA/SLSP/CCL/RPSCL/89/0084	22-02-2024	22-02-2024	06-03-2024	3,918.20	162009058	20-02-2024	13.50	4.04	35.79	4338	5.32	35.51	4270	G10
12	ROSA/NUGP/CCL/RPSCL/90/0085	22-02-2024	23-02-2024	06-03-2024	3,916.40	162000032	21-02-2024	15.60	2.11	47.06	3647	3.05	46.81	3612	G13
13	ROSA/NUGP/CCL/RPSCL/91/0086	23-02-2024	23-02-2024	06-03-2024	4,068.70	162000137	20-02-2024	11.20	1.04	38.29	4659	1.96	37.94	4616	G9
14	ROSA/CCSR/CCL/RPSCL/92/0087	23-02-2024	23-02-2024	06-03-2024	4,008.60	162000140	21-02-2024	8.60	1.10	35.79	4835	2.01	35.46	4791	G7
15	ROSA/CCSR/CCL/RPSCL/93/0088	23-02-2024	23-02-2024	06-03-2024	3,786.50	162007251	21-02-2024	10.80	3.58	43.16	3704	4.59	42.69	3668	G12

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (S) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

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COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 24.02.2024 to 25.02.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-006

Date: 29.01.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 26.03.2024

Relative Humidity of Laboratory (%): 69%

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Temperature of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/SLSP/CCL/RPSCU/93/0088	24-02-2024	24-02-2024	11-03-2024	4,024.80	162000041	22-02-2024	15.10	2.78	45.90	3701	2.51	46.03	3711	G12
2	ROSA/CCSR/CCL/RPSCU/94/0089	24-02-2024	24-02-2024	11-03-2024	3,700.40	162007253	22-02-2024	11.50	3.95	41.76	3586	4.14	41.79	3579	G13
3	ROSA/RDML/CCL/RPSCU/95/0090	24-02-2024	24-02-2024	11-03-2024	4,011.60	162001962	22-02-2024	11.80	4.82	35.91	4257	4.52	36.02	4270	G11
4	ROSA/CCSR/CCL/RPSCU/96/0091	24-02-2024	25-02-2024	11-03-2024	3,972.80	162007252	21-02-2024	12.20	3.78	41.85	3542	3.91	41.79	3537	G13
5	ROSA/CCSR/CCL/RPSCU/97/0092	24-02-2024	25-02-2024	11-03-2024	3,994.00	162007254	22-02-2024	12.50	4.10	39.98	3792	4.29	39.90	3784	G12
6	ROSA/RDML/CCL/RPSCU/98/0093	25-02-2024	25-02-2024	11-03-2024	4,024.40	162001963	23-02-2024	12.70	4.98	36.24	4102	4.72	36.34	4209	G11
7	ROSA/NUGP/CCL/RPSCU/99/0094	25-02-2024	25-02-2024	11-03-2024	3,868.10	162000143	23-02-2024	8.80	1.38	34.98	4812	1.41	34.97	4811	G9
8	ROSA/CHR/CCL/RPSCU/100/0095	25-02-2024	25-02-2024	11-03-2024	3,961.00	462001408	24-02-2024	11.70	4.82	40.21	4068	4.92	40.10	4072	G11
9	ROSA/SLSP/CCL/RPSCU/101/0096	25-02-2024	25-02-2024	11-03-2024	4,024.80	162000046	22-02-2024	13.00	2.42	46.52	3672	2.57	46.45	3669	G13
10	ROSA/RDML/CCL/RPSCU/102/0097	25-02-2024	25-02-2024	11-03-2024	4,046.50	162001964	24-02-2024	14.70	4.74	35.75	4218	4.82	35.90	4223	G11

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)
Cotecna Inspection India Pvt Ltd

COTECNA INSPECTION INDIA PVT LTD.
Office No. 510, 5th Floor, DLF Prime Tower, Okhla Industrial Area, Phase - I,
New Delhi – 110020, India Phone: [91-11] 42119 [000]
CIN : U 74130 MH 2004 PTC 145842

Cotecna Inspection India Pvt. Ltd. Delhi

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 26.02.2024 to 03.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-007

Date: 29.03.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 06.03.2024

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 58%

Temperatur of Laboratory (°C): 23°C

SL NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR QUANTITY (IN MT)	P.NOTE NO. / R.R. NO.	R.R. DATE		M%	ASH%	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH% (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/RDMI/CCL/RPSCL/103/0099	26-02-2024	27-02-2024	11-03-2024	3,806.10	162001965	26-02-2024	10.20	4.96	38.57	4180	8.04	35.15	4132	G11
2	ROSA/NUGP/CCL/RPSCL/104/0099	27-02-2024	27-02-2024	11-03-2024	3,981.40	162000148	25-02-2024	9.50	1.78	36.26	4767	1.82	36.25	4765	G9
3	ROSA/KASN/CCL/RPSCL/105/0100	27-02-2024	27-02-2024	11-03-2024	4,020.20	162004207	25-02-2024	11.80	3.81	37.72	4193	4.09	37.61	4183	G11
4	ROSA/RDMI/CCL/RPSCL/106/0101	27-02-2024	28-02-2024	11-03-2024	4,093.10	162001966	26-02-2024	12.50	4.87	36.06	4164	5.80	35.62	4115	G11
5	ROSA/DCSK/CCL/RPSCL/107/0102	28-02-2024	28-02-2024	11-03-2024	3,910.00	162002849	26-02-2024	17.20	6.29	19.89	5288	7.14	19.71	5240	G7
6	ROSA/SLSP/CCL/RPSCL/108/0103	28-02-2024	28-02-2024	11-03-2024	4,020.20	162009075	26-02-2024	15.10	2.02	46.70	3844	2.53	46.46	3825	G13
7	ROSA/SLSP/CCL/RPSCL/109/0104	28-02-2024	28-02-2024	11-03-2024	4,087.40	162009076	26-02-2024	16.50	2.47	44.34	3653	3.16	44.07	3629	G12
8	ROSA/NUGP/CCL/RPSCL/110/0105	28-02-2024	28-02-2024	11-03-2024	4,041.70	162000149	25-02-2024	9.50	1.48	28.30	5576	2.00	28.15	5547	G6
9	ROSA/NUGP/CCL/RPSCL/111/0106	29-02-2024	29-02-2024	11-03-2024	4,023.10	162000150	26-02-2024	8.50	1.46	40.33	4409	2.10	40.08	4381	G10
10	ROSA/CHRI/CCL/RPSCL/112/0107	29-02-2024	29-02-2024	11-03-2024	4,020.30	462001412	27-02-2024	5.50	0.78	41.03	4815	1.02	40.92	4803	G8
11	ROSA/SLSP/CCL/RPSCL/113/0108	29-02-2024	29-02-2024	11-03-2024	4,012.70	162009089	28-02-2024	15.30	2.19	46.08	3427	2.82	47.77	3805	G13
12	RPSCL/RDMI/CCL/RPSCL/01/0109	01-03-2024	01-03-2024	11-03-2024	4,092.00	162001967	28-02-2024	12.90	4.58	34.22	4226	6.18	33.78	4172	G11
13	RPSCL/NUGP/CCL/RPSCL/02/0110	01-03-2024	01-03-2024	11-03-2024	3,842.40	162000154	28-02-2024	10.20	1.42	35.83	4735	1.98	35.64	4711	G8
14	ROSA/SLSP/CCL/RPSCL/03/0111	01-03-2024	01-03-2024	11-03-2024	4,090.00	162009092	28-02-2024	15.30	1.86	47.04	3589	2.83	46.67	3561	G12
15	ROSA/NUGP/CCL/RPSCL/04/0112	01-03-2024	01-03-2024	11-03-2024	4,027.90	162000155	28-02-2024	9.40	1.05	35.41	4831	1.65	35.23	4807	G9
16	ROSA/RDMI/CCL/RPSCL/05/0113	02-03-2024	02-03-2024	11-03-2024	3,863.50	162001969	29-02-2024	14.40	4.24	32.86	4385	6.09	32.17	4291	G10
17	ROSA/CHRI/CCL/RPSCL/06/0114	02-03-2024	02-03-2024	11-03-2024	3,598.30	462001415	28-02-2024	5.70	0.58	40.76	4604	0.89	40.65	4591	G9
18	ROSA/NUGP/CCL/RPSCL/07/0115	02-03-2024	03-03-2024	11-03-2024	4,075.10	162000158	29-02-2024	9.80	1.53	34.67	4680	1.81	34.57	4666	G9
19	ROSA/RDMI/CCL/RPSCL/08/0116	03-03-2024	03-03-2024	11-03-2024	4,016.40	162001880	01-03-2024	15.20	4.41	34.75	4213	5.97	34.18	4150	G11
20	ROSA/PSIA/CCL/RPSCL/09/0117	03-03-2024	03-03-2024	11-03-2024	3,855.00	162001558	01-03-2024	5.70	0.54	31.71	5622	0.83	31.62	5609	G6

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorised Signatory)

Cotecna Inspection India Pvt Ltd

COTECNA INSPECTION INDIA PVT LTD.

Office No. 530, 5th Floor, DLF Prime Tower, Okhla Industrial Area, Phase - I,

New Delhi - 110020, India Phone (91-11) 42118000

CIN : U 74130 MH 2004 PTC 145842

Cotecna Inspection India Pvt Ltd Delhi

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

426

RELIANCE

Rosa Power Supply
Company Limited
CIN: U31101MH1994PLC243148

520 F, Kasmanda House,
2-Park Road, Hazratganj,
Lucknow 226 001
Tel: +91 522 4317500
Fax: +91 522 2239508
www.reliancepower.co.in

Ref No: Invoice RPSCL/2024-25/01

04th May 2024

The Superintending Engineer
Electricity Import, Export and Payment Circle
UP Power Corporation Limited
11th Floor, Shakti Bhawan Extn.
14, Ashok Marg, Lucknow 226 001

Sub: Provisional Invoice towards the supply of Power from Rosa Power Project

Ref: Hon'ble UPERC's order dated 16.05.2023, corrigendum dated 22.05.2023 in petition no 1578 of 2020 and Suo-Motu order no. 01/SM/2024 dated 11.03.2024 for Extension of Tariff from 01.04.2024.

Dear Sir,

We enclose herewith provisional invoice no. Rosa TPP/ 2023-24/Invoice/01 for the month of **April 2024** issued on the basis of UPERC order dated 16.05.2023, corrigendum dated 22.05.2023 in petition no 1578 of 2020 and Suo-Motu order no. 01/SM/2024 dated 11.03.2024 for Extension of Tariff from 01.04.2024.

Please note that the present invoice is without prejudice to any of our claims, rights and entitlements under PPA and law all of which are specifically reserved.

Thanking you

For Rosa Power Supply Company Ltd

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

(Siddharth Shekhawat)

Authorized Signatory

Enclosures: As above

CC: The DGM (FM), UPPCL Lucknow

Rosa Power Supply Company Ltd.

Administrative Block, Hardoi Road PO Rausar Kothi, Tehsil Sadar, District Shahjahanpur 242406

GSTIN: 09AABCR8917M1ZR, PAN: AABCR8917M

Ref No. - Rosa TPP/2024-25/Invoice/01
Billing Period: April 2024
Nature of Bill: Monthly Invoice for Recovery of Fixed and Variable Charges

Bill Date 3/May/2024
Due Date 2/Jun/2024

To,
The Superintending Engineer, Electricty Import, Export and Payment Circle
Uttar Pradesh Power Corporation Ltd, Shakti Bhawan
14, Ashok Marg, Lucknow - 226 001
PAN : AAACU5088M

Without Prejudice
Invoice Rosa TPP

Subject: Invoice for Charges Payable by UPPCL for the month of April 2024

Reference: Amended and Reinstated Power Purchase Agreement (PPA) dated 12.11.2006 and all its amendments.
Hon'ble UPERC's Order dated 16.05.2023 approving Multi-Year Tariff of Rosa TPP for FY 2019-20 to FY 2023-24.
Hon'ble UPERC's Suo-Motu order no. 01/SM/2024 dated 11.03.2024 for Extension of Tariff from 01.04.2024.

Details of Charges Payable by UPPCL During The Billing Period

S. No.	Description	Energy (kWh)	Amount (Rs.)	Source
1	Total Fixed Charges Payable by UPPCL for the Billing Period	779,414,625	957,783,333	Fixed Charges Details (Annexure 1)
2	Total Variable Charges Payable by UPPCL for the Billing Period	598,439,785	1,976,610,385	Variable Charges Details (Annexure 2)
3	Total Amount Payable by UPPCL for the Billing Period		2,934,393,718	

Amount in Words : Rupees Two Hundred Ninety Three Crores Forty Three Lacs Ninety Three Thousand Seven Hundred Eighteen Only

Note:

1 Payments shall be made in the favour of **Rosa Power Supply Company Ltd, A/c No : 1001103000002615,**
(IDBI Bank Cuffe Parade WTC Branch, IFSC Code: IBKL0001001)

Annexures:

1 Details of fixed charges recoverable during the billing period
2 Details of variable charges recoverable during the billing period
3 Details of Declared Capacity and Scheduled Generation as per Schedule Issued by UP SLDC
4 Details of Adjustment in VC for the month of March 2024 due to revised GCV on TPSA Values

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Authorized Signatory

(Siddharth Shekhawat)

Rosa TPP | Billing Period: April 2024 | Annexure 1

Details of Fixed Charges Payable by UPPCL

S. No.	Description	Units	Value	Source
			April-24	
1	Energy as per Declared Capacity of the Billing Period for Phase I(As per the DC issued by RPSCL)	kWh	384,134,625	Annexure 3
2	Energy as per Declared Capacity of the Billing Period for Phase II (As per the DC issued by RPSCL)	kWh	395,280,000	Annexure 3
3	Total Energy Considered for Fixed Charges Calculation	kWh	779,414,625	(3 = 1 + 2)
4	No. of Days in Billing Period	Days	30	
5	Availability Factor for the Billing Period	%	98.59%	
6	Annual Fixed Charges approved by UPERC for FY 2024-25	(Rs)	11,493,400,000	Hon'ble UPERC's Suo-Motu order no. 01/SM/2024 dated 11.03.2024 for Extension of Tariff from 01.04.2024.
7	Monthly Fixed Charges	(Rs)	957,783,333	
8	Cumulative Fixed Charges Year Till End of Billing Period	(Rs)	957,783,333	
9	Cumulative energy as per Declared Capacity Year Till End of Billing Period	kWh	779,414,625	
10	Days in the current tariff year	Days	30	
11	Cumulative Availability as per Declared Capacity Year Till End of Billing Period	%	98.59%	
12	Cumulative Fixed Charges recoverable Year Till End of Billing Period	(Rs)	957,783,333	
13	Fixed Charges already billed Till Date	(Rs)	0	
14	**Fixed Charges recoverable in this bill**	(Rs)	**957,783,333**	

Note:

1) The invoice towards Deemed Energy due to grid disturbance/transmission line tripping and Incentive will be raised separately.

Formula For Availability Calculation: $\frac{\text{Declared Capacity}}{1200 \times 24 \times (\text{No. of Days}) \times (100\% - \%\text{Auxiliary Consumption}) \times 1000}$

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa TPP	Billing Period: April 2024			Annexure 2

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Scheduled Energy For Rosa TPP Phase I (As per the schedule issued by UP SLDC)	kWh	314,287,305	Annexure 3
2	Scheduled Energy For Rosa TPP Phase II (As per the schedule issued by UP SLDC)	kWh	284,152,480	Annexure 3
3	**Total Scheduled Energy for the Station**	**kWh**	598,439,785	
4	Energy Charge Rate (ECR)	(Rs)	**3.283**	Table: Energy Charge Calculation
5	Total Variable Charges calculated for the billing period	(Rs)	1,964,677,814	
6	VC Adjustment on account of TPSA GCV Values (unloading end) - March'24	(Rs)	11,932,570	
7	Total Variable Charges Recoverable during the billing period (5+6)	(Rs)	1,976,610,385	
8	Effective ECR for the Billing Period	(Rs)	**3.303**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.30506	Annexure 2A
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	598439785	Schedule Issued by UPPTCL
3	Auxillary Consumption (for Electrically driven boiler feed pump and Induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3522	Annexure 2A
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.4344	Monthly Average (Annexure 2B)
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFI	Rs/ ml	0.07966358	Annexure 2B
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFI +LC x LPL} x 100 / (100-Aux)**	Rs	3.283	Calculated as per formula in Generation Regulation 2019

Note:

ECR is calculated considering weighted average As Received GCV of Primary fuel In KCal/Kg less 85KCal/Kg on account of variation during storage and CV of Secondary fuel in KCal/ml as per UPERC tariff regulation 2019.

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of April'2024

Annexure 2A					
Sl. No.	Description	Unit	Value		
1	Opening Stock Details				
			Domestic Coal	*Imported Coal*	
a	Coal Opening Quantity for the month	MT	270,114.91	-	
b	Coal Opening Rate for the month	Rs/tonne	4,358.06	-	
2	Receipt Coal Details				
			Linkage Coal	*One Time Coal*	*Imported Coal*
a	Receipt Quantity	MT	430,580.71	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	427,136.06	-	-
c	Landed Cost of coal	Rs/tonne	4,120.22	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	117.16	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,237.38	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,271.55	-	-
g	Average Price of Coal Received	Rs/tonne			4,271.55
3	Coal Stock Position for the month				
			Domestic Coal	*Imported Coal*	
a	Coal Stock for the Month (Quantity)		697,250.97	-	
b	Average Price of Coal in Stock	Rs/tonne	4,305.06	-	
c	Total Coal Consumed during the month	MT	408,409	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,305.06	
e	Coal Closing Quantity for the month	MT	288,841.97	-	
f	Coal Closing Rate for the month	Rs/tonne	4,305.06	-	
4	Quality				
a	GCV of coal for the opening coal stock	kCal/Kg	3,640		
b	GCV of coal receipt during the month	kCal/Kg	3,586		
c	Weighted Average GCV of coal	kCal/Kg			3,607
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,522

Annexure 2B					
Sl. No.	Description	Unit	Value		
			LDO	HFO	Average
1	Oil Opening Quantity for the month	KL	207.766		
2	Value of the opening stock	Rs.	16,551,383.62		
3	Landed cost of Oil (Including Transportation charges)	Rs.			
4	Quantity supplied by oil company	KL			
5	Weighted average per unit secondary fuel cost	Rs./ml			0.07966358
6	GCV of Oil for the opening stock	kCal/ml	9.4344		
7	Weighted average GCV of oil as received	kCal/ml			
8	Weighted average GCV of oil	kCal/ml			9.4344

LUCKNOW

Authorised Signatory

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

Administrative Block, Hardoi Road
P.O. Rausar Kothi, Tehsil-Sadar
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
Fax: +91 05842 300003
www.reliancepower.co.in

RECEIPT COAL GCV CERTIFICATE AS RECEIVED BASIC (ARB)

April-2024

Date of Receiving	RR No.	RR Qty (MT)	Declared Grade	Wagons No.	As Received Basic (ARB) GCV (kCal/kg)
03.04.24	162009318	4022.00	-	-	3280
03.04.24	162009319	4032.90	-	-	3248
04.04.24	162004225	3829.80	-	-	3368
04.04.24	162006262	4013.90	G-9	30	3294
			G-10	28	3224
04.04.24	162009322	4010.60	-	-	3332
04.04.24	162009323	4009.60	-	-	3363
05.04.24	142000005	4035.00	-	-	5235
05.04.24	162009331	4024.00	-	-	2919
06.04.24	162001562	3990.50	-	-	5516
06.04.24	162009334	4015.60	-	-	3003
06.04.24	162009335	4029.60	-	-	3220
06.04.24	162003916	4005.10	-	-	3294
06.04.24	162000165	3988.50	-	-	5040
6.04.24	162000167	4000.80	-	-	4756
06.04.24	162006263	3991.20	G-8	30	3450
			G-10	28	3189
06.04.24	162004226	3812.20	-	-	3537
07.04.24	162009342	4070.00	-	-	3260
07.04.24	162009345	4018.00	-	-	3230
07.04.24	162000168	3975.20	-	-	4843
08.04.24	162009349	4030.10	-	-	3677
08.04.24	162009348	4002.90	-	-	3387

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

08.04.24	162000170	4002.30	-	-	4562
08.04.24	162006266	4042.60	G-9	30	3605
			G-10	28	3115
08.04.24	162006265	4036.10	G-9	30	3974
			G-10	28	3449
09.04.24	162002655	4090.50	-	-	4045
09.04.24	162009359	4073.20	-	-	3395
09.04.24	162009358	4049.40	-	-	3652
09.04.24	162009364	4025.90	-	-	3126
10.04.24	162009365	3932.40	-	-	2859
10.04.24	162000172	4024.40	-	-	4864
10.04.24	162006268	4015.60	G-9	30	3655
			G-10	28	3471
10.04.24	162009374	4036.70	-	-	3051
10.04.24	162009375	4018.10	-	-	3238
11.04.24	162000175	4065.80	-	-	5053
11.04.24	162006269	4014.00	G-8	30	3186
			G-9	28	3204
11.04.24	162003946	3980.10	-	-	3490
11.04.24	162009379	4018.50	-	-	3443
11.04.24	162009380	3977.50	-	-	3218
12.04.24	162000176	4065.60	-	-	4589
12.04.24	162007284	2989.00	-	-	4266
12.04.24	162000178	4062.20	-	-	4421
12.04.24	142000091	3730.50	-	-	4755
13.04.24	162000179	3999.60	-	-	3724
13.04.24	162009392	4007.80	-	-	2941
13.04.24	162009393	4001.40	-	-	3117
13.04.24	162009398	4017.10	-	-	3351
14.04.24	162009399	4027.00	-	-	3213
14.04.24	162000183	4011.80	-	-	4355
15.04.24	162004227	4065.70	-	-	3348
15.04.24	162007288	3943.80	-	-	4276
15.04.24	162000184	3994.20	-	-	4931
16.04.24	162009408	4005.00	-	-	3346
16.04.24	162009409	4030.40	-	-	3506
16.04.24	162004228	4049.60	-	-	3453
16.04.24	162000187	4008.20	-	-	4605
16.04.24	162009412	4007.80	-	-	2904
17.04.24	162009413	3981.50	-	-	3227
17.04.24	162000188	4014.80	-	-	4160

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

RELIANCE

17.04.24	162004230	3997.50	-	-	3458
18.04.24	162009424	4032.00	-	-	3261
18.04.24	162009425	4075.60	-	-	3258
18.04.24	462001481	4087.30	-	-	4624
19.04.24	162000192	3834.80	-	-	4367
19.04.24	162000194	4074.00	-	-	4608
19.04.24	162001565	3764.90	-	-	3857
19.04.24	162000195	3802.50	-	-	4205
20.04.24	162009439	4019.90	-	-	3003
20.04.24	162009440	4027.80	-	-	3044
20.04.24	162000196	3984.00	-	-	4404
20.04.24	462001484	3873.60	-	-	4424
21.04.24	162000198	4013.00	-	-	4338
21.04.24	162001242	3704.40	-	-	3497
21.04.24	162009445	4034.30	-	-	3038
21.04.24	162009446	4009.40	-	-	3211
21.04.24	462001487	3822.40	-	-	4407
22.04.24	162009453	4106.50	-	-	3374
22.04.24	162009454	4049.20	-	-	2905
22.04.24	162000200	4080.40	-	-	4119
22.04.24	162009457	4057.40	-	-	2803
22.04.24	162009460	4062.70	-	-	2361
23.04.24	162002020	4096.40	-	-	3768
23.04.24	162001244	3842.90	-	-	3562
23.04.24	162000202	4070.50	-	-	3937
24.04.24	162002024	4088.10	-	-	3842
24.04.24	162009468	4025.50	-	-	2896
24.04.24	162009469	3997.50	-	-	2878
24.04.24	162001567	3578.90	-	-	4244
25.04.24	162002026	4053.40	-	-	3459
25.04.24	142000006	4081.50	-	-	4629
25.04.24	162009475	4030.20	-	-	2676
25.04.24	162000209	3680.00	-	-	4743
26.04.24	162004029	4009.10	-	-	3212
26.04.24	162004030	3995.40	-	-	3204
26.04.24	162009476	4131.60	-	-	2498
27.04.24	162004231	3882.80	-	-	3481
27.04.24	162009490	3742.60	-	-	2327
27.04.24	162000211	4069.90	-	-	3984
27.04.24	162002029	3997.60	-	-	3646
27.04.24	162009489	3976.90	-	-	2507

RGIL GAS SUPPLY COMPANY LIMITED LUCKNOW

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28.04.24	162009499	4016.40	-	-	2391
28.04.24	162009500	4039.80	-	-	2777
28.04.24	162004232	4062.00	-	-	3361
29.04.24	162009505	4078.80	-	-	2304
29.04.24	162009506	4070.50	-	-	2458
29.04.24	162009509	4039.50	-	-	2314
29.04.24	162009510	4029.50	-	-	2328
30.04.24	162004234	3776.90	-	-	3518
30.04.24	162002034	4018.50	-	-	3815
Weighted Average GCV (kCal/Kg)					**3586**

Rajeev Kumar
(Chemistry)

NOIDA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O&E)

.....x.....

RELIANCE

Rosa Power Supply
Company Limited
CIN: U3110MH1994PLC243148

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P O Rausai Kothi, Tehsil-Sadar,
District – Shahjahanpur
Uttar Pradesh 242 406

Tel: +91 05842 306600
Fax: +91 05842 300003
www.reliancepower.co.in

SECONDARY FUEL (LDO) TEST CERTIFICATE				
APRIL – 2024				
SR. No	Particulars	Receipt Date	Quantity (KL)	GCV (Kcal / ltr.)
1	LDO receipt	NA	NA	NA
	Weighted Average GCV			NA

Note: GCV of fuel is reported as per IS 1448-2004.

Rajeev Kumar
(Chemistry)

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

Ashok Thakur
(O & E)

Annexure 3

Rosa Phase I		
Date	DC (MU)	SG (MU)
01-Apr-24	13.1760000	10.8085700
02-Apr-24	13.1760000	11.3849650
03-Apr-24	13.1760000	11.1379000
04-Apr-24	13.1760000	12.3937200
05-Apr-24	13.1760000	12.2496150
06-Apr-24	13.1760000	12.0231400
07-Apr-24	13.1760000	10.2320950
08-Apr-24	13.1760000	10.4379900
09-Apr-24	13.1760000	10.6026850
10-Apr-24	13.1760000	10.2732950
11-Apr-24	13.1760000	10.6026400
12-Apr-24	13.1760000	11.1379600
13-Apr-24	13.1760000	11.3231650
14-Apr-24	13.1760000	11.1996700
15-Apr-24	13.1760000	12.5172300
16-Apr-24	13.1760000	10.6850200
17-Apr-24	13.1760000	10.8702850
18-Apr-24	13.1760000	10.3144950
19-Apr-24	13.1760000	10.0056650
20-Apr-24	13.1760000	9.1616050
21-Apr-24	13.1760000	9.9026950
22-Apr-24	13.1760000	10.3144900
23-Apr-24	13.1760000	8.9968850
24-Apr-24	13.1760000	8.6057350
25-Apr-24	13.1760000	10.6232600
26-Apr-24	13.1760000	10.4997150
27-Apr-24	13.1760000	12.2290400
28-Apr-24	9.1271250	7.6140024
29-Apr-24	6.6107500	5.4579077
30-Apr-24	12.6447500	10.6818650
TOTAL	**384.134625**	**314.287305**

Rosa Phase II		
Date	DC (MU)	SG (MU)
01-Apr-24	13.1760000	7.8234350
02-Apr-24	13.1760000	7.7411050
03-Apr-24	13.1760000	9.1615850
04-Apr-24	13.1760000	9.7791950
05-Apr-24	13.1760000	10.6026950
06-Apr-24	13.1760000	8.4204650
07-Apr-24	13.1760000	8.3792800
08-Apr-24	13.1760000	8.1528500
09-Apr-24	13.1760000	8.4822300
10-Apr-24	13.1760000	8.6469000
11-Apr-24	13.1760000	8.0499000
12-Apr-24	13.1760000	8.0704950
13-Apr-24	13.1760000	9.4498200
14-Apr-24	13.1760000	9.3262800
15-Apr-24	13.1760000	11.2197700
16-Apr-24	13.1760000	9.7792000
17-Apr-24	13.1760000	10.8702850
18-Apr-24	13.1760000	9.8409500
19-Apr-24	13.1760000	9.7791850
20-Apr-24	13.1760000	8.9969200
21-Apr-24	13.1760000	9.8615200
22-Apr-24	13.1760000	10.0262400
23-Apr-24	13.1760000	8.5439400
24-Apr-24	13.1760000	8.5439800
25-Apr-24	13.1760000	10.3968250
26-Apr-24	13.1760000	10.1909400
27-Apr-24	13.1760000	12.1878700
28-Apr-24	13.1760000	10.1085850
29-Apr-24	13.1760000	10.8703150
30-Apr-24	13.1760000	10.8497200
TOTAL	**395.280000**	**284.152480**



TPSA Credit/ Debit Note | Billing Period: March 2024 | Annexure 4

Details of Variable Charges Payable by UPPCL During The Billing Period

	Description	Units	Value	Source
1	Total Schedule Energy for the Station	kWh	568,217,625	Annexure 3
2	Revised Energy Charge Rate as per GCV calculated from CIMFR Values	Rs/ kWh	3.314	Table: Energy Charge Calculation
3	**Total billing Charges Recoverable for the Billing Period**	(Rs)	**1,883,073,208**	
4	Total Variable Charges already recovered	(Rs)	1,871,140,638	Ref No. - Rosa TPP/2023-24/Supplementary Invoice/01
5	Total Variable Charges billed to UPPCL for the Billing Period	(Rs)	**11,932,570**	

Energy Charge Calculation

	Description	Formula	Units	Value	Remarks
1	Average per unit primary fuel cost	LPPF	Rs/Kg	4.35806	
2	Scheduled Energy (As per schedule issued by UP SLDC)	SG	kWh	568217625	
3	Auxillary Consumption (for Electrically driven boiler feed pump and induced draft cooling tower)	Aux	%	8.50%	As per Generation Regulation 2019
4	Normative Gross Station Heat Rate	GSHR	kCal/kWh	2430	As per UPERC Generation Tariff Regulation 2019
5	Weighted Average As Received GCV of Primary fuel	CVPF	kCal/kg	3532	
6	Average GCV of Secondary fuel	CVSF	kCal/ml	9.43	
7	Normative specific fuel oil consumption	SFC	ml/kWh	0.50	As per UPERC Generation Tariff Regulation 2019
8	Average per unit secondary fuel cost	LPSFi	Rs/ ml	0.07966358	
9	**Energy Charge Rate (ECR)**	**{(GSHR-SFC x CVSF) x LPPF / CVPF +SFC x LPSFi +LC x LPL} x 100 / (100-Aux)**	Rs	3.314	

Annexures:

2A Details of Primary Fuel
2B Details of Secondary Fuel
2C Fuel Test Cetificates

POWER SUPPLY COMPANY LIMITED LUCKNOW

Rosa Power Supply Company Limited

Information for computation of variable charges for the month of March'2024 with revised GCV as per TPSA report

Annexure 2A					
Sl. No.	**Description**	**Unit**	**Value**		
1	**Opening Stock Details**				
			Domestic Coal	***Imported Coal***	
a	Coal Opening Quantity for the month	MT	132,533.71	-	
b	Coal Opening Rate for the month	Rs/tonne	4,340.89	-	
2	**Receipt Coal Details**				
			Linkage Coal	***One Time Coal***	***Imported Coal***
a	Receipt Quantity	MT	545,126.21	-	-
b	Qty.after Transit loss Adj. @ 0.8%	MT	540,765.20	-	-
c	Landed Cost of coal	Rs/tonne	4,210.00	-	-
d	Coal Handling & Transportation Agent Charges	Rs/tonne	118.00	-	-
e	Total Landed Cost of Coal	Rs/tonne	4,328.00	-	-
f	Total (Adjusted for Transit losses @ 0.8%)	Rs/tonne	4,362.90	-	-
	Average Price of Coal Received	Rs/tonne			4,362.90
3	**Coal Stock Position for the month**				
			Domestic Coal	***Imported Coal***	
a	Coal Stock for the Month (Quantity)		673,298.91	-	
b	Average Price of Coal in Stock	Rs/tonne	4,358.57	-	
c	Total Coal Consumed during the month	MT	403,184	-	
d	Wt. Avg Rate of Consumed Coal	Rs/tonne		4,358.57	
e	Coal Closing Quantity for the month	MT	270,114.91	-	
f	Coal Closing Rate for the month	Rs/tonne	4,358.57	-	
4	**Quality**				
a	GCV of coal for the opening coal stock	kCal/Kg	3,624		
b	GCV of coal receipt during the month	kCal/Kg	3,615		
c	Weighted Average GCV of coal	kCal/Kg			3,617
d	GCV of Coal as per UPERC Generation Tariff Regulation 2019	kCal/Kg			3,532

Annexure 2B					
Sl. No.	**Description**	**Unit**	**Value**		
			LDO	**HFO**	**Average**
1	Oil Opening Quantity for the month	KL	214.766		
2	Value of the opening stock	Rs.	17,416,300.58		
3	Landed cost of Oil (Including Transportation charges)	Rs.	3,516,580.00		
4	Quantity supplied by oil company	KL	48.000		
5	Weighted average per unit secondary fuel cost	Rs./ml			0.07966358
6	GCV of Oil for the opening stock	kCal/ml	9.4329		
7	Weighted average GCV of oil as received	kCal/ml	9.4413		
8	Weighted average GCV of oil	kCal/ml			9.4344

Authorised Signatory

RPSCL ROSA LAB RESULTS

DOMESTIC RAKE COAL RESULT MARCH 2024

Date of Receipt	Rake No.	Wagon Number	Source	Supplier	Mine Code	Grade	Remarks	GCV	ADB	ARB	Equilibrium Moisture	Equilibrium Ash (60% RH & 40 Temp.)	Equilibrium GCV (60% RH & 40 Temp.)	ARB	ARB
									TM	TM				Ash	GCV
								Kcal/Kg	%	%	%	%	Kcal/Kg	%	Kcal/Kg
01.03.24	1	RPSCL/23-24/01-L-01/1095/109	RDML	162001967	4092.00	-	-	3926	4.96	12.90	6.18	33.78	4172	31.36	3673
01.03.24	2	RPSCL/23-24/02-L-02/1096/110	NUGP	162000154	3842.40	-	-	4330	1.42	10.20	1.93	35.84	4711	32.64	4313
01.03.24	3	RPSCL/23-24/03-L-03/1097/111	SLSP	162000092	4090.00	-	-	3112	1.86	15.30	2.63	46.67	3561	40.60	3097
01.03.24	4	RPSCL/23-24/04-L-04/1098/112	NUGP	162000155	4027.90	-	-	4424	1.05	9.40	1.55	35.23	4807	32.42	4423
02.03.24	5	RPSCL/23-24/05-L-05/1099/113	RDML	162001969	3863.60	-	-	3976	4.24	14.40	6.09	32.17	4281	29.32	3902
02.03.24	6	RPSCL/23-24/06-L-06/1100/114	CHRI	462001415	3698.30	-	-	4319	0.58	5.70	0.85	40.65	4607	38.66	4382
02.03.24	7	RPSCL/23-24/07-L-07/1101/115	NUGP	162000158	4075.10	-	-	4479	1.53	9.80	1.81	34.57	4866	31.76	4470
03.03.24	8	RPSCL/23-24/08-L-08/1102/116	RDML	162000160	4016.40	-	-	3826	4.41	15.20	5.97	34.18	4150	30.83	3743
03.03.24	9	RPSCL/23-24/09-L-09/1103/117	PSJA	162001555	3855.00	-	-	5250	0.54	5.70	0.83	31.62	5506	30.07	5236
03.03.24	10	RPSCL/23-24/10-L-10/1104/118	SLSP	162000659	4009.90	-	-	3259	2.46	18.70	3.19	42.72	3869	35.87	3249
03.03.24	11	RPSCL/23-24/11-L-11/1105/119	DCSK	162000168	3959.80	-	-	4102	4.57	19.90	5.78	27.43	4660	23.32	3962
03.03.24	12	RPSCL/23-24/12-L-12/1106/120	SLSP	162000660	3954.80	-	-	3616	2.48	16.80	3.22	39.71	4159	34.14	3576
03.03.24	13	RPSCL/23-24/13-L-13/1107/121	CHRI	462001416	4114.60	-	-	4585	0.91	4.30	1.41	38.78	4720	37.65	4582
04.03.24	14	RPSCL/23-24/14-L-14/1108/122	KASN	162000276	4097.80	-	-	3918	3.53	10.10	3.68	37.60	4152	35.10	3875
04.03.24	15	RPSCL/23-24/15-L-15/1109/123	JRGD	162001228	3898.30	-	-	3710	0.86	4.40	0.78	49.29	3888	47.49	3746
04.03	16	RPSCL/23-24/16-L-16/1110/124	SLSP	162009117	4016.50	-	-	3084	3.05	16.50	2.22	47.86	3626	40.87	3096
04.03	17	RPSCL/23-24/17-L-17/1111/125	SLSP	162009118	4022.20	-	-	3233	3.16	18.90	2.60	44.41	3925	36.98	3269
04.03.24	18	RPSCL/23-24/18-L-18/1112/126	RDML	162001972	4026.30	-	-	3807	5.97	15.60	5.98	34.81	4275	31.25	3838
04.03.24	19	RPSCL/23-24/19-L-19/1113/127	SLSP	162009113	3994.90	-	-	3528	3.77	18.80	3.15	40.21	4286	33.72	3594
05.03.24	20	RPSCL/23-24/20-L-20/1114/128	SLSP	162009114	4004.70	-	-	3504	3.10	16.20	2.31	42.43	4120	36.40	3534
05.03.24	21	RPSCL/23-24/21-L-21/1115/129	RDML	162001973	4042.10	-	-	3922	7.04	14.50	5.91	33.65	4361	30.58	3982
06.03.24	22	RPSCL/23-24/22-L-22/1116/130	KASN	162004209	3979.90	-	-	3612	4.88	12.50	4.55	41.72	3898	38.25	3574
06.03.24	23	RPSCL/23-24/23-L-23/1117/131	PLCP	162003727	3974.30	-	-	3265	4.57	10.20	4.82	43.84	3572	41.98	3370
06.03.24	24	RPSCL/23-24/24-L-24/1116/132	BSDC	162006205	3987.60	-	-	3991	3.56	10.10	3.43	38.24	4296	35.60	3999
07.03.24	25	RPSCL/23-24/25-L-25/1119/133	SLSP	162000662	4028.40	-	-	3331	2.19	13.80	2.88	46.16	3742	40.08	3322
07.03.24	26	RPSCL/23-24/26-L-26/1120/134	SLSP	162000663	4014.60	-	-	3317	3.12	15.80	3.07	44.03	3868	38.25	3360
07.03.24	27	RPSCL/23-24/27-L-27/1121/135	BSDC	162006206	3991.90	G-8	30	3832	3.56	12.20	3.71	41.31	3990	37.67	3638
						G-9	28	3127	2.31	11.20	3.58	60.15	3120	46.19	2873
07.03.24	28	RPSCL/23-24/28-L-28/1122/136	RDML	162001974	4001.70	-	-	3581	5.93	13.80	5.82	37.34	3977	34.18	3640
07.03.24	29	RPSCL/23-24/29-L-29/1123/137	RDML	162001975	4005.30	-	-	3730	5.62	11.80	5.73	37.01	4024	34.63	3765
08.03.24	30	RPSCL/23-24/30-L-30/1124/138	SLSP	162009139	4027.90	-	-	3341	2.27	14.50	2.81	45.00	3798	39.59	3341
08.03.24	31	RPSCL/23-24/31-L-31/1125/139	BSDC	162006208	3999.70	-	-	3562	4.09	11.80	4.05	41.58	3928	38.23	3611
08.03.24	32	RPSCL/23-24/32-L-32/1126/140	RDML	162001976	4080.70	-	-	3631	4.51	12.80	5.31	39.40	3920	35.36	3610
09.03.24	33	RPSCL/23-24/33-L-33/1127/141	SLSP	162009146	4012.10	-	-	3409	2.55	15.60	2.63	43.59	3934	37.78	3410
09.03.24	34	RPSCL/23-24/34-L-34/1128/142	SLSP	162009147	4034.00	-	-	3448	2.51	14.20	2.69	44.18	3895	38.93	3434
09.03.24	35	RPSCL/23-24/35-L-35/1129/143	BSDC	162006210	4036.50	-	-	3517	3.05	11.90	3.61	46.89	3463	42.85	3165
09.03.24	36	RPSCL/23-24/36-L-36/1130/144	RDML	162000099	4080.00	-	-	3532	5.15	13.70	5.71	38.84	3842	35.55	3517
09.03.24	37	RPSCL/23-24/37-L-37/1131/145	PSJA	162001559P	3953.10	-	-	4426	0.96	4.90	1.21	39.85	4653	38.36	4479
09.03.24	38	RPSCL/23-24/38-L-38/1132/146	SLSP	162009149	4016.70	-	-	3460	2.65	16.50	3.07	42.63	4007	36.72	3451
09.0	39	RPSCL/23-24/39-L-39/1133/147	SLSP	162009150	4086.50	-	-	3485	2.59	16.80	2.89	42.22	4061	36.17	3480
10.03.24	40	RPSCL/23-24/40-L-40/1134/148	BSDC	162006212	3960.60	G-8	30	4421	2.81	9.90	3.13	33.62	4773	31.27	4439
						G-9	27	3767	3.06	9.60	3.35	40.98	4044	38.33	3782
11.03.24	41	RPSCL/23-24/41-L-41/1135/149	KASN	162000091K	4098.00	-	-	3764	4.31	12.60	5.51	36.67	4023	33.92	3721
11.03.24	42	RPSCL/23-24/42-L-42/1136/150	SLSP	162000239	4032.90	-	-	3249	2.78	17.90	3.23	43.93	3868	37.27	3282
11.03.24	43	RPSCL/23-24/43-L-43/1137/151	SLSP	162000238	4032.90	-	-	3701	3.26	18.20	3.66	36.65	4436	31.12	3766
11.03.24	44	RPSCL/23-24/44-L-44/1138/152	PLCP	162003757	4013.80	-	-	3418	3.99	14.60	4.36	42.20	3800	37.68	3393
11.03.24	45	RPSCL/23-24/45-L-45/1139/153	SLSP	162009165	4040.10	-	-	3639	2.99	16.50	3.65	39.66	4180	34.28	3623
12.03.24	46	RPSCL/23-24/46-L-46/1140/154	SLSP	162009164	4056.70	-	-	3589	2.65	15.60	3.67	40.11	4063	35.13	3559
10.03.24	47	RPSCL/23-24/47-L-47/1141/155	BSDC	162006216	4049.60	G-8	30	3499	3.30	11.20	3.80	43.67	3764	40.31	3475
						G-9	28	3518	2.71	10.20	3.39	44.64	3680	41.40	3421
12.03.24	48	RPSCL/23-24/48-L-48/1142/156	KASN	162004212	4096.00	-	-	3346	5.35	15.80	4.58	40.52	3908	35.76	3360
13.03.24	49	RPSCL/23-24/49-L-49/1143/157	BSDC	162006217	4006.10	G-9	30	3574	2.60	10.30	3.21	47.22	3441	43.76	3189
						G-10	28	3367	3.12	10.50	2.70	43.81	3886	40.30	3574
13.03.24	50	RPSCL/23-24/50-L-50/1144/158	SLSP	162009173	4010.50	-	-	3231	3.77	18.80	2.66	44.53	3835	37.10	3195
13.03.24	51	RPSCL/23-24/51-L-51/1145/159	CHRI	462001430	4039.00	-	-	4397	1.13	5.30	0.56	40.98	4629	39.03	4407
13.03.24	52	RPSCL/23-24/52-L-52/1146/160	SLSP	162009174	4011.00	-	-	3471	3.26	15.60	2.60	43.10	3966	37.39	3441
14.03.24	53	RPSCL/23-24/53-L-53/1147/161	CCSR	162007269	3985.80	-	-	3885	4.79	12.90	4.38	35.42	4204	32.26	3829
14.03.24	54	RPSCL/23-24/54-L-54/1148/162	CCSR	162007268	4003.70	-	-	3938	4.30	12.50	4.29	35.16	4314	32.14	3944
14.03.24	55	RPSCL/23-24/55-L-55/1149/163	BSDC	162006221	3819.00	G-8	31	3644	4.39	10.80	3.21	42.02	3957	38.72	3647
						G-10	26	3613	3.61	9.80	3.46	43.00	3796	40.18	3547
14.03.24	56	RPSCL/23-24/56-L-56/1150/164	CCSR	162007270	3906.00	-	-	3964	5.71	12.13	4.38	35.30	4263	32.44	3917
14.03.24	57	RPSCL/23-24/57-L-57/1151/165	SLSP	162009181	4018.90	-	-	3300	2.91	15.40	2.28	45.25	3794	39.17	3285
14.03.24	58	RPSCL/23-24/58-L-58/1152/166	SLSP	162009182	4032.40	-	-	3341	3.16	16.30	2.35	44.92	3796	38.50	3254
15.03.24	59	RPSCL/23-24/59-L-59/1153/167	CCSR	162007271	4089.60	-	-	3883	4.10	13.20	3.75	36.18	4223	32.63	3809

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15.03.24	60	RPSCL/23-24/60-L-60/1154/168	BSDC	162006222	4027.30	-	-	3884	4.60	10.90	2.92	41.40	3930	38.00	3607
15.03.24	61	RPSCL/23-24/61-L-61/1155/169	BSDC	162006223	4025.40	-	-	3896	3.93	11.20	2.65	39.84	4105	36.34	3745
16.03.24	62	RPSCL/23-24/62-L-62/1156/170	CCSR	162007272	4072.40	-	-	3317	3.91	11.50	3.46	44.21	3499	40.53	3208
16.03.24	63	RPSCL/23-24/63-L-63/1157/171	BSDC	162006224	4007.40	-	-	4136	3.96	12.70	2.73	35.32	4588	31.70	4118
16.03.24	64	RPSCL/23-24/64-L-64/1158/172	BSDC	162006225	3952.60	G-8	30	3586	4.90	10.50	3.53	42.99	3916	39.88	3633
						G-9	27	3578	4.70	11.20	3.97	44.53	3730	41.13	3446
16.03.24	65	RPSCL/23-24/65-L-65/1159/173	KASN	162004213	4032.60	-	-	3336	4.82	13.90	3.54	42.29	3748	37.75	3345
16.03.24	66	RPSCL/23-24/66-L-66/1160/174	RDML	162001981	4083.20	-	-	3676	4.12	13.40	3.91	37.67	4031	33.95	3633
17.03.24	67	RPSCL/23-24/67-L-67/1161/175	SLSP	162009199	4011.70	-	-	3645	3.96	18.20	2.79	39.05	4390	32.86	3694
17.03.24	68	RPSCL/23-24/68-L-68/1162/176	SLSP	162009198	4000.60	-	-	3419	4.16	18.50	2.84	41.25	4193	34.60	3517
17.03.24	69	RPSCL/23-24/69-L-69/1163/177	BSDC	162006228	3929.10	-	-	3119	3.78	12.50	2.61	52.22	3174	46.82	2852
17.03.24	70	RPSCL/23-24/70-L-70/1164/178	RDML	162001982	3544.70	-	-	3309	4.23	13.20	3.16	43.00	3751	38.54	3362
18.03.24	71	RPSCL/23-24/71-L-71/1165/179	SLSP	162009206	4022.60	-	-	3036	3.03	18.50	2.80	46.71	3668	39.17	3067
18.03.24	72	RPSCL/23-24/72-L-72/1166/180	SLSP	162009205	4022.30	-	-	3082	3.69	17.60	2.77	47.15	3647	39.96	3091
18.03.24	73	RPSCL/23-24/73-L-73/1167/181	BSDC	162006231	3951.70	-	-	3591	4.83	10.80	3.15	43.93	3846	40.46	3542
19.03.24	74	RPSCL/23-24/74-L-74/1168/182	RDML	162001983	4090.20	-	-	3543	5.12	12.50	4.46	40.35	3866	36.95	3540
19.03.24	75	RPSCL/23-24/75-L-75/1169/183	SLSP	162009215	4028.20	-	-	3316	3.66	17.20	2.73	44.25	3870	37.57	3294
19.03.24	76	RPSCL/23-24/76-L-76/1170/184	SLSP	162009216	4024.10	-	-	3438	3.58	15.20	2.71	43.44	3984	37.86	3473
19.03.24	77	RPSCL/23-24/77-L-77/1171/185	CHRI	462001438	3771.60	-	-	4397	1.12	5.60	0.94	40.62	4567	38.71	4371
19.03.24	78	RPSCL/23-24/78-L-78/1172/186	PSJA	162001569P	3903.00	-	-	5605	1.00	6.20	0.83	27.42	5864	25.94	5546
19.03.24	79	RPSCL/23-24/79-L-79/1173/187	BSDC	162006233	3813.90	G-9	33	3703	3.78	13.80	2.96	39.50	4183	35.09	3716
						G-10	25	3389	3.19	10.50	2.82	45.97	3680	42.38	3393
20.03.24	80	RPSCL/23-24/80-L-80/1174/188	BSDC	162006235	3810.10	G-8	33	3175	3.94	12.20	3.22	47.89	3497	43.45	3173
						G-9	25	3228	3.55	13.80	2.75	43.76	3563	38.81	3158
20.03.24	81	RPSCL/23-24/81-L-81/1175/189	BSDC	162006236	3936.20	G-9	30	3930	4.16	13.50	3.61	36.58	4274	32.83	3835
						G-10	28	3292	3.83	14.20	2.90	47.63	3625	42.09	3203
20.03.24	82	RPSCL/23-24/82-L-82/1176/190	SLSP	162009223	4017.50	-	-	3326	2.88	17.20	2.72	44.13	3869	37.56	3288
20.03.24	83	RPSCL/23-24/83-L-83/1177/191	SLSP	162009222	4025.50	-	-	3101	3.11	17.50	2.50	37.61	3624	31.82	3066
21.03.24	84	RPSCL/23-24/84-L-84/1178/192	SLSP	162009232	4065.90	-	-	2921	3.21	15.20	2.41	50.44	3359	43.63	2919
22.03.24	85	RPSCL/23-24/85-L-85/1179/193	KASN	162004217	4036.80	-	-	3331	3.12	13.30	3.93	42.08	3585	37.98	3235
22.03.24	86	RPSCL/23-24/86-L-86/1180/194	CHRI	462001443	3990.70	-	-	4472	1.04	5.80	0.62	40.31	4684	38.21	4440
22.03.24	87	RPSCL/23-24/87-L-87/1181/195	RDML	142000183	3739.70	-	-	3167	3.91	13.20	3.90	44.80	3430	40.46	3098
22.03.24	88	RPSCL/23-24/88-L-88/1182/196	BSDC	162006237	4016.70	G-9	30	3275	3.04	14.20	3.42	48.96	3587	43.50	3187
						G-10	28	3094	2.85	14.10	3.65	47.33	3423	42.20	3052
22.03.24	89	RPSCL/23-24/89-L-89/1183/197	KASN	162004218	4121.70	-	-	3373	3.65	13.80	4.15	41.90	3724	37.68	3349
22.03.24	90	RPSCL/23-24/90-L-90/1184/198	SLSP	162009245	4003.50	-	-	3138	2.26	16.20	2.53	46.17	3615	39.69	3108
22.03.24	91	RPSCL/23-24/91-L-91/1185/199	CCSR	162007277	4171.30	-	-	3269	2.85	14.20	3.36	43.40	3643	38.53	3234
23.03.24	92	RPSCL/23-24/92-L-92/1186/200	RDML	162001986	4041.30	-	-	3293	3.80	11.80	4.85	42.74	3502	39.62	3246
23.03.24	93	RPSCL/23-24/93-L-93/1187/201	JRGD	142000070	4091.30	-	-	3775	0.82	4.60	1.06	47.68	3918	46.97	3778
23.03.24	94	RPSCL/23-24/94-L-94/1188/202	KASN	162004219	3613.60	-	-	3451	5.05	14.80	4.83	39.88	3792	35.79	3395
23.04.23	95	RPSCL/23-24/95-L-95/1189/203	CCSR	162007278	4056.90	-	-	3464	4.96	11.80	4.81	41.33	3861	38.30	3392
23.04.23	96	RPSCL/23-24/96-L-96/1190/204	SLSP	162009254	4031.60	-	-	3154	2.96	14.90	2.58	46.97	3568	41.03	3117
23.04.23	97	RPSCL/23-24/97-L-97/1191/205	SLSP	162009255	3993.40	-	-	3461	2.97	14.80	2.74	42.62	3965	37.34	3473
24.03.24	98	RPSCL/23-24/98-L-98/1192/206	CHRI	462001446	3957.90	-	-	4370	1.09	5.30	0.87	41.49	4591	39.64	4386
24.03.24	99	RPSCL/23-24/99-L-99/1193/207	RDML	162001987	3989.40	-	-	3458	4.66	13.50	4.03	40.56	3736	36.56	3367
24.03.24	100	RPSCL/23-24/100-L-100/1194/208	CCSR	162007279	4065.20	-	-	3416	3.43	12.20	3.81	42.22	3661	38.54	3342
24.03.24	101	RPSCL/23-24/101-L-101/1195/209	CCSR	162007281	4017.80	-	-	3445	5.18	12.50	5.03	41.17	3730	37.93	3437
25.0	102	RPSCL/23-24/102-L-102/1196/210	SLSP	162009264	4017.70	-	-	3501	3.41	14.90	3.37	42.19	3950	37.16	3479
25.03.24	103	RPSCL/23-24/103-L-103/1197/211	SLSP	162009265	4071.00	-	-	3256	3.44	14.80	3.33	45.19	3660	39.83	3226
25.03.24	104	RPSCL/23-24/104-L-104/1198/212	CCSR	162007282	4074.80	-	-	3372	4.09	11.70	4.41	44.44	3800	41.05	3325
25.03.24	105	RPSCL/23-24/105-L-105/1199/213	DCSK	162002651	4041.10	-	-	4118	6.85	18.10	7.02	25.47	4719	22.43	4157
25.03.24	106	RPSCL/23-24/106-L-106/1200/214	CHRI	462001448	3992.30	-	-	4449	1.07	5.80	1.32	39.88	4545	38.88	4432
26.03.24	107	RPSCL/23-24/107-L-107/1201/215	CHRI	462001449	4001.60	-	-	4397	1.12	5.20	0.93	39.62	4597	37.91	4399
26.03.24	108	RPSCL/23-24/108-L-108/1202/216	BSDC	162006244	4042.30	G-9	30	3450	3.68	10.60	5.28	46.11	3552	43.37	3341
						G-10	28	3204	3.11	9.80	4.99	46.62	3464	44.26	3289
27.03.24	109	RPSCL/23-24/109-L-109/1203/217	SLSP	162009276	4013.40	-	-	3181	3.26	14.50	3.46	44.78	3584	39.66	3174
27.03.24	110	RPSCL/23-24/110-L-110/1204/218	SLSP	162009275	4001.50	-	-	3035	3.11	14.60	3.32	44.05	3421	38.91	3022
28.03.24	111	RPSCL/23-24/111-L-111/1205/219	RDML	162001989	3996.80	-	-	3818	4.08	11.50	5.12	41.96	3969	39.14	3702
29.03.24	112	RPSCL/23-24/112-L-112/1206/220	CHRI	462001450	4051.90	-	-	4432	1.01	5.60	1.11	40.08	4603	38.26	4394
29.03.24	113	RPSCL/23-24/113-L-113/1207/221	SLSP	162009281	4011.30	-	-	3296	3.65	16.20	1.01	45.10	3900	38.18	3302
29.03.24	114	RPSCL/23-24/114-L-114/1208/222	SLSP	162009282	4021.40	-	-	3436	3.71	14.30	3.92	44.72	3856	39.89	3439
30.03.24	115	RPSCL/23-24/115-L-115/1209/223	RDML	162001991	4059.10	-	-	3596	4.39	10.20	5.48	43.48	3730	41.31	3544
30.03.24	116	RPSCL/23-24/116-L-116/1210/224	SLSP	162009287	4026.20	-	-	3386	3.34	15.10	5.55	42.71	3704	37.94	3290
30.03.24	117	RPSCL/23-24/117-L-117/1211/225	SLSP	162009288	4087.90	-	-	3394	3.58	15.20	5.21	43.37	3731	38.80	3338
30.03.24	118	RPSCL/23-24/118-L-118/1212/226	JRGD	162001237	4037.10	-	-	3716	0.68	4.50	1.10	49.87	3812	48.16	3681
30.03.24	119	RPSCL/23-24/119-L-119/1213/227	DCSK	162002652	4026.70	-	-	4111	5.18	16.10	5.98	25.97	4703	23.17	4197
30.03.24	120	RPSCL/23-24/120-L-120/1214/228	SLSP	162009292	4031.00	-	-	3255	3.35	14.20	3.82	43.51	3640	38.81	3247
30.03.24	121	RPSCL/23-24/121-L-121/1215/229	SLSP	162009293	4024.40	-	-	3371	3.51	14.80	5.10	43.39	3691	38.95	3314
31.03.24	122	RPSCL/23-24/122-L-122/1216/230	CHRI	462001462	3981.90	-	-	4600	1.06	4.50	0.86	39.98	4666	38.52	4499
31.03.24	123	RPSCL/23-24/123-L-123/1217/231	BSDC	162006253	3943.30	-	-	3483	3.81	11.20	4.34	46.86	3732	43.50	3464
31.03.24	124	RPSCL/23-24/124-L-124/1218/232	SLSP	162009299	4090.20	-	-	3643	3.24	13.80	7.36	42.09	3773	39.18	3512
31.03.24	125	RPSCL/23-24/125-L-125/1219/233	SLSP	162009298	4045.40	-	-	3418	3.31	14.20	5.62	42.15	3662	38.32	3329
31.03.24	126	RPSCL/23-24/126-L-126/1220/234	CHRI	462001454	3985.10	-	-	4233	0.80	5.30	0.75	42.72	4404	40.78	4202

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31.03.24	127	RPSCL/23-24/127-L-127/1221/235	JRGD	162001239	3868.30	-	-	3528	0.59	5.10	0.75	50.21	3686	48.01	3524
31.03.24	128	RPSCL/23-24/128-L-128/1222/236	PLCP	162003884	4000.10	-	-	3309	3.33	14.50	3.32	44.37	3698	39.24	3270
31.03.24	129	RPSCL/23-24/129-L-129/1223/237	DCSK	162002663	4052.60	-	-	4260	6.06	16.90	5.88	24.98	4895	22.06	4313
31.03.24	130	RPSCL/23-24/130-L-130/1224/238	PLCP	162003885	3940.60	-	-	3543	4.01	13.20	3.69	41.10	3931	37.04	3543
31.03.24	131	RPSCL/23-24/131-L-131/1224/239	PLCP	162003885	4032.40	-	-	3227	5.10	12.90	4.50	45.18	3518	41.21	3209
31.03.24	132	RPSCL/23-24/132-L-132/1224/240	SLSP	162009310	4023.60	-	-	3695	6.45	13.20	4.10	41.26	4074	37.34	3687
31.03.24	133	RPSCL/23-24/133-L-133/1224/241	SLSP	162009311	4025.00	-	-	3818	6.40	15.60	4.02	40.45	4299	35.57	3780
31.03.24	134	RPSCL/23-24/134-L-134/1224/242	CHRI	462001456	4074.60	-	-	4541	1.02	4.80	1.10	39.41	4684	37.94	4509
31.03.24	135	RPSCL/23-24/135-L-135/1224/243	PLCP	162003894	4083.80	-	-	3126	4.21	12.90	4.44	44.73	3466	40.77	3159
31.03.24	136	RPSCL/23-24/136-L-136/1224/244	PLCP	162003893	4035.80	-	-	3365	4.41	12.10	4.58	42.80	3707	39.43	3415
					443481.60			3638							3615



COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 26.02.2024 to 03.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-007

Date: 29.03.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 06.03.2024

Relative Humidity of Laboratory (%): 58%

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Temperatur of Laboratory (°C): 23°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equl.)	ASH % (Equl.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/RDML/CCL/RPSCL/103/0098	26-02-2024	27-02-2024	11-03-2024	3,806.10	162001965	28-02-2024	16.20	4.08	36.57	4180	6.04	36.15	4192	G11
2	ROSA/NUGP/CCL/RPSCL/104/0099	27-02-2024	27-02-2024	11-03-2024	3,981.40	162000146	25-02-2024	9.50	1.78	38.26	4767	1.82	36.25	4765	G9
3	ROSA/KASH/CCL/RPSCL/106/0100	27-02-2024	27-02-2024	11-03-2024	4,020.20	162004207	26-02-2024	11.80	3.81	37.72	4195	4.09	37.81	4183	G11
4	ROSA/RDML/CCL/RPSCL/108/0101	27-02-2024	28-02-2024	11-03-2024	4,093.10	162001968	28-02-2024	12.50	4.87	36.05	4184	5.80	36.62	4176	G11
5	ROSA/DCSK/CCL/RPSCL/107/0102	28-02-2024	28-02-2024	11-03-2024	3,910.00	162002649	26-02-2024	17.20	6.29	19.89	5288	7.14	19.71	5240	G7
6	ROSA/SLSP/CCL/RPSCL/108/0103	28-02-2024	28-02-2024	11-03-2024	4,020.20	162009075	28-02-2024	16.10	2.02	46.70	3844	2.53	46.46	3825	G13
7	ROSA/SLSP/CCL/RPSCL/109/0104	28-02-2024	28-02-2024	11-03-2024	4,087.40	162009078	28-02-2024	16.60	2.47	44.36	3953	3.10	44.07	3928	G12
8	ROSA/NUGP/CCL/RPSCL/110/0105	28-02-2024	28-02-2024	11-03-2024	4,041.70	162000149	26-02-2024	9.50	1.49	28.30	6576	2.00	26.15	5547	G6
9	ROSA/NUGP/CCL/RPSCL/111/0106	28-02-2024	29-02-2024	11-03-2024	4,023.10	162000150	26-02-2024	8.50	1.48	40.33	4409	2.10	40.08	4391	G10
10	ROSA/CHRI/CCL/RPSCL/112/0107	29-02-2024	29-02-2024	11-03-2024	4,020.30	462001412	27-02-2024	5.50	0.76	41.03	4615	1.02	40.82	4601	G9
11	ROSA/SLSP/CCL/RPSCL/113/0108	29-02-2024	29-02-2024	11-03-2024	4,012.70	162009080	28-02-2024	15.30	2.19	48.08	3427	2.62	47.77	3405	G13
12	RPSCL/RDML/CCL/RPSCL/01/0109	01-03-2024	01-03-2024	11-03-2024	4,092.00	162001967	28-02-2024	12.90	4.96	34.22	4226	6.18	33.78	4172	G11
13	RPSCL/NUGP/CCL/RPSCL/02/0110	01-03-2024	01-03-2024	11-03-2024	3,842.40	162000154	28-02-2024	10.20	1.42	35.83	4735	1.93	35.64	4711	G9
14	ROSA/SLSP/CCL/RPSCL/03/0111	01-03-2024	01-03-2024	11-03-2024	4,090.00	162009092	28-02-2024	15.30	1.86	47.04	3589	2.63	46.67	3561	G13
15	ROSA/NUGP/CCL/RPSCL/04/0112	01-03-2024	01-03-2024	11-03-2024	4,027.90	162000155	28-02-2024	9.40	1.65	35.41	4831	1.65	35.23	4807	G9
16	ROSA/RDML/CCL/RPSCL/05/0113	02-03-2024	02-03-2024	11-03-2024	3,863.50	162001969	29-02-2024	14.40	4.24	32.80	4355	6.09	32.37	4281	G10
17	ROSA/CHRI/CCL/RPSCL/06/0114	02-03-2024	02-03-2024	11-03-2024	3,596.30	462001415	29-02-2024	5.70	0.58	40.76	4804	0.85	40.68	4791	G9
18	ROSA/NUGP/CCL/RPSCL/07/0115	02-03-2024	03-03-2024	11-03-2024	4,075.10	162000158	29-02-2024	9.80	1.53	34.67	4880	1.81	34.57	4868	G9
19	ROSA/RDML/CCL/RPSCL/08/0116	03-03-2024	03-03-2024	11-03-2024	4,016.40	142000180	01-03-2024	15.20	4.41	34.75	4219	5.97	34.18	4150	G11
20	ROSA/PSIA/CCL/RPSCL/09/0117	03-03-2024	03-03-2024	11-03-2024	3,855.00	162001555	01-03-2024	5.70	0.54	31.71	5522	0.83	31.62	5506	G8

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)

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CIN : U 74130 MH 2004 PTC 145842

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

COTECNA

Test Report No. : IN2402229-008

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 03.03.2024 to 08.03.2024

UNLOADING END ANALYSIS REPORT

Name of Coal Company : Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Date of start of analysis: 13.03.2024

Product tested: Coal Sample

Date: 29.03.2024

Relative Humidity of Laboratory (%): 56%

Temperature of Laboratory (°C): 33°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/SLSP/CCL/RPSCL/10/0118	03-03-2024	03-03-2024	13-03-2024	4,009.90	142000659	02-03-2024	18.70	2.46	43.04	3838	3.19	42.72	3660	G12
2	ROSA/DCSK/CCL/RPSCL/11/0119	02-03-2024	03-03-2024	13-03-2024	3,959.80	142000168	01-03-2024	19.90	4.67	27.78	4720	5.78	27.43	4606	G8
3	ROSA/SLSP/CCL/RPSCL/12/0120	03-03-2024	04-03-2024	13-03-2024	3,968.80	142000560	01-03-2024	18.90	2.48	40.02	4187	3.32	39.71	4169	G11
4	ROSA /CHBI/CCL/RPSCL/13/0121	03-03-2024	04-03-2024	13-03-2024	4,114.60	462001436	01-03-2024	4.30	0.91	38.88	4744	1.41	38.78	4780	G9
5	ROSA/KASN/CCL/RPSCL/14/0122	04-03-2024	04-03-2024	13-03-2024	4,097.80	142000276	02-03-2024	10.10	3.53	37.66	4158	3.40	37.69	4160	G11
6	ROSA/JRGD/CCL/RPSCL/15/0123	04-03-2024	04-03-2024	18-03-2024	3,838.30	162001228	02-03-2024	4.40	0.86	49.25	3889	0.98	49.29	3895	G10
7	ROSA/SLSP/CCL/RPSCL/16/0124	04-03-2024	05-03-2024	18-03-2024	4,016.50	162001117	03-03-2024	16.50	3.05	47.46	3595	2.22	47.06	3526	G13
8	ROSA/SLSP/CCL/RPSCL/17/0125	04-03-2024	05-03-2024	19-03-2024	4,022.20	162001118	03-03-2024	18.90	3.16	44.16	3903	2.60	44.43	3925	G11
9	ROSA/RDML/CCL/RPSCL/18/0126	04-03-2024	05-03-2024	19-03-2024	4,026.30	162001972	03-03-2024	15.60	5.97	34.82	4276	5.96	34.81	4275	G11
10	ROSA/SLSP/CCL/RPSCL/19/0127	04-03-2024	05-03-2024	19-03-2024	3,994.90	162001973	03-03-2024	16.80	3.77	39.96	4259	3.15	40.21	4286	G11
11	ROSA/SLSP/CCL/RPSCL/20/0128	05-03-2024	06-03-2024	19-03-2024	4,004.70	162001114	02-03-2024	16.20	3.10	42.09	4087	2.31	42.43	4120	G11
12	ROSA/RDML/CCL/RPSCL/21/0129	05-03-2024	06-03-2024	19-03-2024	4,042.10	162001973	04-03-2024	14.60	7.04	33.24	4329	5.91	33.65	4384	G10
13	ROSA/KASN/CCL/RPSCL/22/0130	06-03-2024	06-03-2024	19-03-2024	3,979.90	162004209	04-03-2024	12.60	4.88	41.58	3865	4.56	41.74	3878	G13
14	ROSA/PLCP/CCL/RPSCL/23/0131	06-03-2024	06-03-2024	21-03-2024	3,974.30	162003727	04-03-2024	10.20	4.57	43.96	3581	4.82	41.84	3278	G15
15	ROSA/BSDC/CCL/RPSCL/24/0132	06-03-2024	07-03-2024	21-03-2024	3,987.60	162006205	05-03-2024	10.10	3.56	38.19	4290	3.43	38.24	4296	G11
16	ROSA/SLSP/CCL/RPSCL/25/0133	07-03-2024	07-03-2024	21-03-2024	4,028.40	142000662	06-03-2024	13.80	2.19	45.48	3769	2.88	45.76	3792	G12
17	ROSA/SLSP/CCL/RPSCL/26/0134	07-03-2024	07-03-2024	21-03-2024	4,014.60	142000663	06-03-2024	15.80	3.12	44.01	3866	3.07	44.03	3867	G12
18	ROSA/BSDC/CCL/RPSCL/27/0135 (A)	07-03-2024	07-03-2024	21-03-2024	3,991.90	162006206	05-03-2024	12.20	3.56	41.38	3996	3.71	41.41	3999	G12
19	ROSA/BSDC/CCL/RPSCL/27/0135 (B)	07-03-2024	07-03-2024	21-03-2024			05-03-2024	11.70	2.31	50.91	3161	3.58	50.15	3120	G14
20	ROSA/RDML/CCL/RPSCL/28/0136	07-03-2024	08-03-2024	21-03-2024	4,001.70	162001974	05-03-2024	13.80	5.93	37.50	3972	5.82	37.58	3977	G12

Note :

(i) Samples collected as per Bilateral Agreement dated (24.01.2024)

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak...

(Authorized Signatory)

Cotecna Inspection India Pvt Ltd

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CIN: U74130 MH 2004 PTC 142842

ROSA POWER SUPPLY COMPANY LIMITED LUCKNOW

COTECNA

Test Report No. : IN2402229-009

Name of Coal Company- Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 07.03.2024 to 13.03.2024

UNLOADING END ANALYSIS REPORT

Date: 29.03.2024

Date of start of analysis: 16.03.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 58%

Temperatur of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/RDML/CCL/RPSCL/29/0137	07-03-2024	08-03-2024	21-03-2024	4,005.30	162001975	08-03-2024	11.80	5.62	37.06	4029	5.73	37.01	4024	G11
2	ROSA/SLSP/CCL/RPSCL/30/0138	08-03-2024	08-03-2024	21-03-2024	4,027.90	162009139	08-03-2024	14.60	2.27	45.25	3819	2.81	45.00	3798	G12
3	ROSA/BSDC/CCL/RPSCL/31/0139	08-03-2024	09-03-2024	21-03-2024	3,998.70	162006208	06-03-2024	11.80	4.09	41.57	3927	4.06	41.58	3928	G12
4	ROSA/RDML/CCL/RPSCL/32/0140	08-03-2024	09-03-2024	21-03-2024	4,080.70	162001976	07-03-2024	12.80	4.51	38.72	3953	5.31	38.40	3920	G12
5	ROSA/SLSP/CCL/RPSCL/33/0141	08-03-2024	09-03-2024	21-03-2024	4,012.10	162009146	07-03-2024	15.80	2.55	43.63	3937	2.63	43.59	3933	G12
6	ROSA/SLSP/CCL/RPSCL/34/0142	09-03-2024	09-03-2024	21-03-2024	4,034.00	162009147	07-03-2024	14.20	2.51	44.24	3902	2.68	44.16	3895	G12
7	ROSA/BSDC/CCL/RPSCL/35/0143	08-03-2024	09-03-2024	20-03-2024	4,036.50	162006210	07-03-2024	11.90	3.05	47.16	3483	5.61	46.89	3463	G13
8	ROSA/RDML/CCL/RPSCL/36/0144	09-03-2024	10-03-2024	20-03-2024	4,080.00	152000099	07-03-2024	13.70	5.15	39.07	3865	5.71	38.84	3842	G12
9	ROSA/PSJA/CCL/RPSCL/37/0145	09-03-2024	10-03-2024	20-03-2024	3,853.10	162001558P	07-03-2024	4.90	0.96	39.95	4685	1.21	39.85	4652	G8
10	ROSA/SLSP/CCL/RPSCL/38/0146	09-03-2024	10-03-2024	20-03-2024	4,016.70	162009149	08-03-2024	16.50	2.65	42.82	4024	3.07	42.63	4007	G11
11	ROSA/SLSP/CCL/RPSCL/39/0147	10-03-2024	10-03-2024	21-03-2024	4,086.50	162009150	08-03-2024	16.80	2.59	42.35	4074	2.89	42.22	4061	G11
12	ROSA/BSDC/CCL/RPSCL/40/0148 (A)	10-03-2024	11-03-2024	20-03-2024	3,960.60	162006212	10-03-2024	9.90	2.81	33.73	4789	3.13	33.62	4773	G9
13	ROSA/BSDC/CCL/RPSCL/40/0148 (B)	10-03-2024	11-03-2024	20-03-2024				8.60	3.06	41.10	4056	3.35	40.98	4044	G11
14	ROSA/KASN/CCL/RPSCL/41/0149	10-03-2024	11-03-2024	20-03-2024	4,098.00	152000091K	09-03-2024	12.80	4.31	37.14	4074	5.51	36.67	4023	G11
15	ROSA/SLSP/CCL/RPSCL/42/0150	11-03-2024	11-03-2024	21-03-2024	4,032.90	152000239	09-03-2024	17.90	2.78	44.13	3886	3.73	43.93	3868	G12
16	ROSA/SLSP/CCL/RPSCL/43/0151	11-03-2024	12-03-2024	21-03-2024	4,032.90	152000238	09-03-2024	18.20	3.26	36.80	4454	3.66	36.65	4436	G10
17	ROSA/PLCP/CCL/RPSCL/44/0152	11-03-2024	12-03-2024	21-03-2024	4,013.80	162003757	10-03-2024	14.60	3.99	42.36	3815	4.36	42.20	3800	G12
18	ROSA/SLSP/CCL/RPSCL/45/0153	11-03-2024	12-03-2024	21-03-2024	4,040.10	162009165	10-03-2024	16.60	2.99	39.83	4209	3.65	39.56	4180	G11
19	ROSA/SLSP/CCL/RPSCL/46/0154	11-03-2024	12-03-2024	21-03-2024	4,056.70	162009164	10-03-2024	16.80	2.65	40.62	4115	3.87	40.11	4063	G11
20	ROSA/BSDC/CCL/RPSCL/47/0155 (A)	12-03-2024	13-03-2024	21-03-2024	4,049.60	162006216	10-03-2024	11.20	3.30	43.50	3784	3.80	43.67	3764	G12
21	ROSA/BSDC/CCL/RPSCL/47/0155 (B)	12-03-2024	13-03-2024	21-03-2024				10.20	2.71	44.85	3705	3.39	44.54	3680	G12

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]
(ii) Ash, Moisture & Total Moisture as per applicable BIS norms
(iii) GCV as per applicable BIS norms
(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms
(v) None of the experiment is performed by external service provider
(vi) This report should not be replicated or reproduced.

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CIN : U74130 MH 2004 PTC 145842

COTECNA

Test Report No. : IN2402229-010

Name of Coal Company- Central Coal Field Ltd,

Coal Consumer : ROSA POWER SUPPLY LIMITED

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 12.03.2024 to 16.03.2024

UNLOADING END ANALYSIS REPORT

Date: 08.04.2024

Date of start of analysis: 22.03.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 58%

Temperature of Laboratory (°C): 25°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equi.)	ASH % (Equi.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/RASN/CCL/RPSCL/48/0156	12-03-2024	13-03-2024	22-03-2024	4,006.00	162004212	13-03-2024	15.80	5.36	40.19	3777	4.59	40.62	3808	G12
2	ROSA/BSDC/CCL/RPSCL/49/0157 (A)	13-03-2024	13-03-2024	22-03-2024	4,006.10	162006217	10-03-2024	10.30	2.00	47.52	3463	3.21	47.27	3441	G13
3	ROSA/BSDC/CCL/RPSCL/49/0157 (B)	13-03-2024	13-03-2024	22-03-2024				10.50	3.12	43.62	3869	2.70	43.81	3885	G12
4	ROSA/SLSP/CCL/RPSCL/50/0158	13-03-2024	14-03-2024	22-03-2024	4,010.50	162009173	12-03-2024	18.90	3.77	44.62	3791	2.86	44.53	3836	G12
5	ROSA/CHRI/CCL/RPSCL/51/0159	13-03-2024	14-03-2024	22-03-2024	4,039.00	462001430	11-03-2024	6.30	1.13	40.76	4601	0.56	40.05	4529	G9
6	ROSA/SLSP/CCL/RPSCL/52/0160	14-03-2024	14-03-2024	22-03-2024	4,011.00	162009174	12-03-2024	15.50	3.26	42.81	3939	2.59	43.19	3964	G12
7	ROSA/CCSR/CCL/RPSCL/53/0161	14-03-2024	14-03-2024	22-03-2024	3,985.80	162007269	13-03-2024	12.90	4.79	35.27	4186	4.08	35.42	4204	G11
8	ROSA/CCSR/CCL/RPSCL/54/0162	14-03-2024	14-03-2024	22-03-2024	4,003.70	162007268	12-03-2024	12.50	4.39	35.16	4214	4.09	35.16	4214	G10
9	ROSA/BSDC/CCL/RPSCL/55/0163 (A)	14-03-2024	15-03-2024	22-03-2024	3,919.00	162006221	12-03-2024	10.80	4.39	41.51	3909	3.21	42.02	3957	G12
10	ROSA/BSDC/CCL/RPSCL/55/0163 (B)	14-03-2024	15-03-2024	22-03-2024				9.80	3.61	42.93	3790	3.46	43.38	3829	G12
11	ROSA/CCSR/CCL/RPSCL/56/0164	14-03-2024	15-03-2024	22-03-2024	3,906.00	162007270	13-03-2024	12.10	5.71	34.81	4204	4.38	35.20	4248	G11
12	ROSA/SLSP/CCL/RPSCL/57/0165	14-03-2024	15-03-2024	22-03-2024	4,018.90	162009181	13-03-2024	15.40	2.93	44.96	3770	2.26	45.25	3794	G10
13	ROSA/SLSP/CCL/RPSCL/58/0166	14-03-2024	15-03-2024	22-03-2024	4,032.40	162009182	13-03-2024	16.30	3.18	43.54	3764	2.35	43.82	3790	G12
14	ROSA/CCSR/CCL/RPSCL/59/0167	15-03-2024	15-03-2024	22-03-2024	4,089.60	162007271	13-03-2024	13.20	4.10	36.04	4268	3.76	36.18	4285	G11
15	ROSA/BSDC/CCL/RPSCL/60/0168	15-03-2024	16-03-2024	22-03-2024	4,027.30	162006222	12-03-2024	10.90	4.50	40.73	3856	3.52	41.10	3890	G12
16	ROSA/BSDC/CCL/RPSCL/61/0169	15-03-2024	16-03-2024	22-03-2024	4,025.40	162006223	13-03-2024	11.20	3.99	39.32	4051	2.66	39.84	4107	G11
17	ROSA/CCSR/CCL/RPSCL/62/0170	16-03-2024	16-03-2024	22-03-2024	4,072.40	162007272	14-03-2024	11.60	3.91	44.00	3481	3.46	44.23	3500	G10
18	ROSA/BSDC/CCL/RPSCL/63/0171	16-03-2024	16-03-2024	22-03-2024	4,007.40	162006224	14-03-2024	12.70	3.96	34.67	4530	2.73	35.32	4598	G10
19	ROSA/BSDC/CCL/RPSCL/64/0172 (A)	16-03-2024	17-03-2024	22-03-2024	3,952.80	162006225	14-03-2024	10.50	4.90	42.98	3860	3.53	43.59	3916	G12
20	ROSA/BSDC/CCL/RPSCL/64/0172 (B)	16-03-2024	17-03-2024	22-03-2024				11.20	4.70	44.15	3694	3.67	44.51	3727	G11

Note :

(i) Samples collected as per Bilateral Agreement dated (24.01.2024)

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)

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CIN : U 74130 MH 2004 PTC 145842

Delhi

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Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 16.03.2024 to 21.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-011

Date: 06.04.2024

Name of Coal Company- Central Coal Field Ltd,

Date of start of analysis: 27.03.2024

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Relative Humidity of Laboratory (%): [illegible]

Temperature of Laboratory (°C): [illegible]

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (ASTM D 3173-87)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equi.)	ASH % (Equi.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/KASH/CCL/RPSCL/65/0173	16-03-2024	17-03-2024	27-03-2024	4,032.80	162004213	15-03-2024	13.90	4.82	41.78	3636	3.64	43.79	3769	G14
2	ROSA/RDML/CCL/RPSCL/66/0174	16-03-2024	17-03-2024	27-03-2024	4,063.20	162001981	15-03-2024	13.40	4.12	37.59	4023	3.91	39.62	4031	G11
3	ROSA/SLSP/CCL/RPSCL/67/0175	17-03-2024	17-03-2024	27-03-2024	4,011.70	162009199	16-03-2024	16.20	3.86	38.56	4357	3.79	39.05	4359	G10
4	ROSA/SLSP/CCL/RPSCL/68/0176	17-03-2024	18-03-2024	27-03-2024	4,000.60	162009198	16-03-2024	16.50	4.16	40.69	4136	3.84	41.75	4165	G11
5	ROSA/BSDC/CCL/RPSCL/69/0177	17-03-2024	19-03-2024	27-03-2024	3,929.10	162006278	15-03-2024	13.50	3.78	51.89	3130	3.61	53.22	3179	G16
6	ROSA/RDML/CCL/RPSCL/70/0178	17-03-2024	18-03-2024	27-03-2024	3,544.70	162001982	15-03-2024	13.20	4.23	42.52	3710	3.16	43.98	3751	G12
7	ROSA/SLSP/CCL/RPSCL/71/0179	18-03-2024	18-03-2024	27-03-2024	4,022.60	162009206	16-03-2024	16.80	3.93	46.60	3844	2.8	46.71	3858	G13
8	ROSA/SLSP/CCL/RPSCL/72/0180	18-03-2024	18-03-2024	27-03-2024	4,022.39	162009205	16-03-2024	17.60	3.63	46.73	3815	2.77	47.15	3847	G13
9	ROSA/BSDC/CCL/RPSCL/73/0181	18-03-2024	19-03-2024	27-03-2024	3,951.70	162006281	16-03-2024	10.80	4.83	43.12	3775	3.15	43.93	3845	G12
10	ROSA/RDML/CCL/RPSCL/74/0182	19-03-2024	19-03-2024	27-03-2024	4,090.20	162001983	16-03-2024	12.50	5.12	40.07	3853	4.46	40.36	3859	G12
11	ROSA/SLSP/CCL/RPSCL/75/0183	19-03-2024	19-03-2024	27-03-2024	4,028.20	162009215	17-03-2024	17.20	3.66	43.83	3803	2.73	44.26	3830	G13
12	ROSA/SLSP/CCL/RPSCL/76/0184	19-03-2024	19-03-2024	27-03-2024	4,024.10	162009216	17-03-2024	16.20	3.98	43.06	3948	2.71	43.44	3964	G12
13	ROSA/CHRI/CCL/RPSCL/77/0185	19-03-2024	20-03-2024	01-04-2024	3,771.60	462001438	17-03-2024	6.60	1.12	40.65	4579	0.91	40.69	4587	G10
14	ROSA/PSIA/CCL/RPSCL/78/0186	19-03-2024	20-03-2024	01-04-2024	3,903.00	1b2001559	16-03-2024	9.20	1.00	37.37	5064	0.85	37.47	5080	G7
15	ROSA/BSDC/CCL/RPSCL/79/0187 (A)	19-03-2024	20-03-2024	01-04-2024	3,813.90	162006233	17-03-2024	13.80	3.78	39.17	4139	2.96	39.91	4163	G11
16	ROSA/BSDC/CCL/RPSCL/79/0187 (B)	19-03-2024	20-03-2024	01-04-2024				13.00	3.19	45.86	3949	2.69	46.67	3969	G13
17	ROSA/BSDC/CCL/RPSCL/80/0188 (A)	20-03-2024	20-03-2024	01-04-2024	3,810.10	162006235	18-03-2024	12.20	3.94	47.03	3421	3.12	47.99	3487	G13
18	ROSA/BSDC/CCL/RPSCL/80/0188 (B)	20-03-2024	20-03-2024	01-04-2024				13.80	3.56	46.42	3611	2.75	47.75	3714	G13
19	ROSA/BSDC/CCL/RPSCL/81/0189 (A)	20-03-2024	21-03-2024	01-04-2024	3,936.20	162006236	18-03-2024	13.80	4.18	36.36	4329	3.03	36.76	4361	G11
20	ROSA/BSDC/CCL/RPSCL/81/0189 (B)	20-03-2024	21-03-2024	01-04-2024				14.20	3.63	47.57	3548	2.9	47.83	3575	G13

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the Laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)

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CIN : U74130DL2004PTC130447

Cotecna Inspection India Pvt Ltd Delhi

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 20.03.2024 to 24.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-012

Date: 08.04.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 03.04.2024

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Relative Humidity of Laboratory (%): [illegible]

Temperatur of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/SLSP/CCL/RPSCL/82/0190	20-03-2024	21-03-2024	01-04-2024	4,017.50	162009223	18-03-2024	17.20	2.88	44.06	3857	2.72	44.33	3843	G12
2	ROSA/SLSP/CCL/RPSCL/83/0191	20-03-2024	21-03-2024	01-04-2024	4,025.50	162009227	18-03-2024	17.60	3.11	39.37	3501	2.8	37.81	3364	G13
3	ROSA/SLSP/CCL/RPSCL/84/0192	21-03-2024	22-03-2024	01-04-2024	4,065.90	162009232	19-03-2024	15.20	3.21	40.03	3531	3.13	40.48	3572	G14
4	ROSA/KASN/CCL/RPSCL/85/0193	22-03-2024	22-03-2024	01-04-2024	4,036.80	162004217	20-03-2024	13.30	3.12	42.49	3615	3.03	42.08	3580	G13
5	ROSA/CHRI/CCL/RPSCL/86/0194	22-03-2024	22-03-2024	01-04-2024	3,990.70	462001443	20-03-2024	5.80	1.04	40.14	4058	0.92	40.31	4054	G9
6	ROSA/RDML/CCL/RPSCL/87/0195	22-03-2024	23-03-2024	01-04-2024	3,739.70	162000183	20-03-2024	13.20	3.91	44.8	3450	3.9	44.36	3436	G13
7	ROSA/BSDC/CCL/RPSCL/88/0196 (A)	22-03-2024	23-03-2024	01-04-2024	4,018.70	162006237	20-03-2024	14.20	3.04	40.15	3501	3.42	40.96	3587	G14
8	ROSA/BSDC/CCL/RPSCL/88/0196 (B)	22-03-2024	23-03-2024	01-04-2024				14.10	2.85	42.72	3751	3.66	42.38	3723	G12
9	ROSA/KASN/CCL/RPSCL/89/0197	22-03-2024	23-03-2024	01-04-2024	4,121.70	162004218	21-03-2024	13.80	3.55	42.16	3747	4.15	41.99	3724	G12
10	ROSA/SLSP/CCL/RPSCL/90/0198	22-03-2024	23-03-2024	01-04-2024	4,003.50	162009245	21-03-2024	16.20	2.26	46.3	3625	2.53	46.17	3615	G13
11	ROSA/CCSR/CCL/RPSCL/91/0199	22-03-2024	23-03-2024	01-04-2024	4,171.30	162007277	21-03-2024	14.20	2.65	43.72	3670	3.36	43.46	3648	G12
12	ROSA/RDML/CCL/RPSCL/92/0200	23-03-2024	23-03-2024	01-04-2024	4,041.30	162001986	21-03-2024	11.80	3.6	43.21	3641	4.86	42.94	3619	G13
13	ROSA/JRGD/CCL/RPSCL/93/0201	23-03-2024	23-03-2024	01-04-2024	4,091.30	142000070	18-03-2024	4.60	0.82	47.8	3928	1.06	47.58	3911	G7
14	ROSA/KASN/CCL/RPSCL/94/0202	23-03-2024	23-03-2024	01-04-2024	3,613.60	162004219	22-03-2024	14.80	5.05	39.68	3783	4.82	39.89	3792	G12
15	ROSA/CCSR/CCL/RPSCL/95/0203	23-03-2024	24-03-2024	01-04-2024	4,056.90	162007278	21-03-2024	11.80	4.96	41.26	3865	4.81	41.33	3871	G12
16	ROSA/SLSP/CCL/RPSCL/96/0204	23-03-2024	24-03-2024	01-04-2024	4,031.60	162009254	22-03-2024	14.90	2.96	46.79	3594	2.98	46.97	3608	G13
17	ROSA/SLSP/CCL/RPSCL/97/0205	23-03-2024	24-03-2024	01-04-2024	3,993.40	162009255	22-03-2024	14.80	2.97	42.52	3996	2.94	42.62	3989	G12
18	ROSA/CHRI/CCL/RPSCL/98/0206	24-03-2024	24-03-2024	01-04-2024	3,967.90	462001446	22-03-2024	5.30	1.09	41.4	4881	0.87	41.49	4891	G10
19	ROSA/RDML/CCL/RPSCL/99/0207	24-03-2024	24-03-2024	01-04-2024	3,989.40	162001987	22-03-2024	13.50	4.66	40.84	3713	4.03	40.96	3730	G12
20	ROSA/CCSR/CCL/RPSCL/100/0208	24-03-2024	24-03-2024	01-04-2024	4,065.20	162007279	22-03-2024	12.20	3.43	42.39	3975	3.81	42.22	3961	G11

Note :

(i) Samples collected as per Bilateral Agreement dated (24.01.2024)
(ii) Ash, Moisture & Total Moisture as per applicable BIS norms
(iii) GCV as per applicable BIS norms
(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms
(v) None of the experiment is performed by external service provider
(vi) This report should not be replicated or reproduced.

Deepak

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CIN : U 71190 MH 2004 PTC 145842

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Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 24.03.2024 to 25.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-013

Date: 05.04.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 04.04.2024

Relative Humidity of Laboratory (%): 57%

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Temperature of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/ECSR/CCL/RPSCL/101/0209	24-03-2024	26-03-2024	01-04-2024	4,017.80	162007281	23-03-2024	12.60	5.18	31.1	3721	5.01	41.11	3738	G12
2	ROSA/SESP/CCL/RPSCL/102/0210	25-03-2024	26-03-2024	01-04-2024	4,017.70	162009264	23-03-2024	14.30	3.41	42.17	3545	3.97	44.19	3690	G13
3	ROSA/SESP/CCL/RPSCL/103/0211	25-03-2024	26-03-2024	01-04-2024	4,071.00	162009265	23-03-2024	14.30	3.44	45.14	3546	3.93	46.18	3680	G13
4	ROSA/CCSR/CCL/RPSCL/104/0212	25-03-2024	26-03-2024	01-04-2024	4,074.80	162007282	23-03-2024	11.70	4.03	44.62	3614	4.61	46.44	3680	G12
5	ROSA/CCSR/CCL/RPSCL/105/0213	25-03-2024	26-03-2024	01-04-2024	4,041.10	162002151	24-03-2024	16.10	6.85	35.62	3728	7.07	39.17	4739	G9
6	ROSA/CHRI/CCL/RPSCL/106/0214	25-03-2024	26-03-2024	01-04-2024	3,902.30	462001443	24-03-2024	3.80	1.07	39.98	4581	1.20	39.99	4646	G10

Note :

(i) Sample collected as per Bilateral Agreement dated (24.01.2024)

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (%) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorised Signatory)

For Cotecna Inspection India Pvt Ltd

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CIN : U74120 KH 2004 PTC 14 3442

Cotecna Inspection India Pvt. Ltd. Delhi

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COTECNA

Test Report No. : IN2402229-014

Name of Coal Company: Central Coal Field Ltd.

Coal Consumer : ROSA POWER SUPPLY LIMITED

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 26.03.2024 to 31.03.2024

UNLOADING END ANALYSIS REPORT

Date: 11.04.2024

Date of start of analysis: 08.04.2024

Product tested: Coal Sample

Relative Humidity of Laboratory (%): 59%

Temperature of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/CHRI/CCL/RPSCL/107/0215	26-03-2024	27-03-2024	06-04-2024	4,001.60	462001449	25-03-2024	5.20	1.12	39.54	4588	0.93	39.62	4597	G10
2	ROSA/BSDC/CCL/RPSCL/108/0216 (A)	26-03-2024	27-03-2024	06-04-2024	4,042.30	162006244	24-03-2024	10.90	3.68	46.89	3612	5.28	46.11	3552	G13
3	ROSA/BSDC/CCL/RPSCL/108/0216 (B)	26-03-2024	27-03-2024	06-04-2024				9.80	3.11	47.54	3533	4.99	46.62	3464	G13
4	ROSA/SLSP/CCL/RPSCL/109/0217	26-03-2024	27-03-2024	06-04-2024	4,013.40	161009276	26-03-2024	14.50	3.28	44.86	3591	3.46	44.78	3584	G13
5	ROSA/SLSP/CCL/RPSCL/110/0218	27-03-2024	27-03-2024	06-04-2024	4,001.50	162009275	26-03-2024	14.60	3.11	44.15	3429	3.32	44.05	3421	G13
6	ROSA/RDML/CCL/RPSCL/111/0219	28-03-2024	28-03-2024	06-04-2024	3,896.80	162001989	26-03-2024	11.50	4.08	42.42	4012	5.12	41.96	3969	G13
7	ROSA/CHRI/CCL/RPSCL/112/0220	29-03-2024	30-03-2024	06-04-2024	4,051.90	462001450	26-03-2024	5.60	1.01	40.12	4608	1.11	40.08	4603	G9
8	ROSA/SLSP/CCL/RPSCL/113/0221	29-03-2024	30-03-2024	06-04-2024	4,011.30	162009281	28-03-2024	16.20	3.86	43.81	3789	1.01	45.10	3900	G12
9	ROSA/SLSP/CCL/RPSCL/114/0222	29-03-2024	30-03-2024	06-04-2024	4,021.40	162009282	28-03-2024	14.30	3.71	44.82	3864	3.92	44.72	3855	G12
10	ROSA/RDML/CCL/RPSCL/115/0223	30-03-2024	31-03-2024	06-04-2024	4,058.10	162001991	28-03-2024	10.20	4.39	43.98	3773	5.48	43.48	3730	G12
11	ROSA/SLSP/CCL/RPSCL/116/0224	30-03-2024	31-03-2024	06-04-2024	4,026.20	162009287	29-03-2024	16.10	3.34	43.71	3791	5.56	42.71	3704	G12
12	ROSA/SLSP/CCL/RPSCL/117/0225	30-03-2024	31-03-2024	06-04-2024	4,087.90	162009288	29-03-2024	15.20	3.58	44.12	3795	5.21	43.37	3731	G12
13	ROSA/JRGD/CCL/RPSCL/118/0226	30-03-2024	31-03-2024	06-04-2024	4,037.10	162001237	28-03-2024	4.50	0.68	50.08	3828	3.1	49.87	3812	G12
14	ROSA/DCSK/CCL/RPSCL/119/0227	30-03-2024	31-03-2024	06-04-2024	4,026.70	162002652	29-03-2024	16.10	6.18	25.91	4693	5.98	25.97	4709	G9
15	ROSA/SLSP/CCL/RPSCL/120/0228	30-03-2024	31-03-2024	06-04-2024	4,031.00	162009292	29-03-2024	14.20	3.35	43.72	3658	3.82	43.51	3640	G13
16	ROSA/SLSP/CCL/RPSCL/121/0229	30-03-2024	31-03-2024	06-04-2024	4,024.40	162009293	29-03-2024	14.80	3.51	44.12	3753	5.3	43.39	3691	G12
17	ROSA/CHRI/CCL/RPSCL/122/0230	31-03-2024	31-03-2024	06-04-2024	3,981.90	462001452	29-03-2024	4.50	1.05	39.91	4658	0.88	39.98	4666	G9
18	ROSA/BSDC/CCL/RPSCL/123/0231	31-03-2024	31-03-2024	06-04-2024	3,943.30	162006253	29-03-2024	11.20	3.81	47.12	3753	4.34	46.86	3732	G12
19	ROSA/SLSP/CCL/RPSCL/124-01/0232	31-03-2024	31-03-2024	06-04-2024	4,090.20	162009299	30-03-2024	13.80	3.24	43.98	3942	7.39	42.09	3773	G12
20	ROSA/SLSP/CCL/RPSCL/125-02/0233	31-03-2024	31-03-2024	06-04-2024	4,049.40	162009298	30-03-2024	14.20	3.31	43.38	3752	5.02	42.15	3664	G12

Note :

(i) Samples collected as per Bilateral Agreement dated (24.01.2024)

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)
Cotecna Inspection India Pvt Ltd

COTECNA INSPECTION INDIA PVT LTD.
Office No. 530, 5th Floor, DLF Prime Tower, Okhla Industrial Area, Phase -I,
New Delhi - 110020, India Phone:(91-11) 42118 8900
CIN : U74130 MH 2001 PTC 145842

LUCKNOW

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 31.03.2024 to 31.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402229-015

Date: 11.04.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 10.04.2024

Relative Humidity of Laboratory (%): 58%

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Temperature of Laboratory (°C): 24°C

Sl. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / MGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	F.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equi.)	ASH % (Equi.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/CHRI/CCL/RPSCL/126-03/0234	31-03-2024	31-03-2024	06-04-2024	3,985.10	162001454	30-03-2024	5.30	0.80	42.70	4402	0.75	42.72	4404	G10
2	ROSA/JRGD/CCL/RPSCL/127-04/0235	31-03-2024	31-03-2024	06-04-2024	3,868.30	162001239	31-03-2024	5.10	0.59	50.29	3692	0.75	50.21	3686	G13
3	ROSA/PLCP/CCL/RPSCL/128-05/0236	31-03-2024	31-03-2024	06-04-2024	4,000.10	162003884	31-03-2024	14.50	3.33	44.36	3698	3.32	44.37	3698	G13
4	ROSA/DCSK/CCL/RPSCL/129-06/0237	31-03-2024	31-03-2024	06-04-2024	4,052.30	162002653	31-03-2024	15.90	6.06	24.94	4876	5.88	24.98	4885	G9
5	ROSA/PLCP/CCL/RPSCL/130-07/0238	31-03-2024	31-03-2024	06-04-2024	3,940.80	162003886	31-03-2024	13.20	4.01	40.96	3918	3.69	41.10	3931	G12

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

Deepak

(Authorized Signatory)

For Cotecna Inspection India Pvt Ltd

Cotecna Inspection India Pvt. Ltd. Delhi

COTECNA INSPECTION INDIA PVT LTD.
Office No. 530, 5th Floor, DLF Prime Tower, Okhla Industrial Area, Phase - I,
New Delhi - 110020, India Phone:(91-11) 42118 8000
CIN : U 74130 MH 2004 PTC 145842

LUCKNOW

COTECNA

Analysis results of coal samples collected by Cotecna Inspection India Pvt Ltd during the period 31.03.2024 to 31.03.2024

UNLOADING END ANALYSIS REPORT

Test Report No. : IN2402220-016

Date: 12.04.2024

Name of Coal Company- Central Coal Field Ltd.

Date of start of analysis: 12.04.2024

Relative Humidity of Laboratory (%): 58%

Coal Consumer : ROSA POWER SUPPLY LIMITED

Product tested: Coal Sample

Temperatur of Laboratory (°C): 24°C

SL. NO.	SAMPLE ID	DATE OF COLLECTION	DATE OF PREPARATION	DATE OF SAMPLE RECEIVING AT LABORATORY	RAILWAY RAKE / NGR DETAILS			TOTAL MOISTURE %	AIR DRIED BASIS			EQUILIBRATED MOISTURE BASIS (60% RH & 40°C)			
					RR. QUANTITY (IN MT)	E.NOTE NO. / R.R. NO.	R.R. DATE		IM %	ASH %	GCV (Kcal/kg)	MOISTURE % (Equil.)	ASH % (Equil.)	GCV (Kcal/kg)	ANALYSED GRADE
1	ROSA/PLCP/CCL/RPSCL/131-08/0239	31-03-2024	31-03-2024	08-04-2024	4,032.40	162003885	31-03-2024	12.90	5.10	44.9	3496	4.60	45.16	3819	G11
2	ROSA/SLSP/CCL/RPSCL/132-09/0240	31-03-2024	31-03-2024	08-04-2024	4,029.60	162009310	31-03-2024	13.20	6.45	40.25	3974	4.10	41.29	4074	G12
3	ROSA/SLSP/CCL/RPSCL/133-10/0241	31-03-2024	31-03-2024	08-04-2024	4,025.60	162009311	31-03-2024	15.60	6.40	39.45	4192	4.62	40.45	4299	G11
4	ROSA/GHRI/CCL/RPSCL/134-11/0242	31-03-2024	31-03-2024	10-04-2024	4,074.80	462001456	31-03-2024	4.80	1.02	39.44	4588	1.10	39.41	4584	G9
5	ROSA/PLCP/CCL/RPSCL/135-12/0243	31-03-2024	31-03-2024	10-04-2024	4,083.80	162003894	31-03-2024	12.90	4.31	44.84	3424	4.44	44.78	3456	G13
6	ROSA/PLCP/CCL/RPSCL/136-13/0244	31-03-2024	31-03-2024	10-04-2024	4,035.80	162003893	31-03-2024	12.10	4.41	42.68	3714	4.68	42.60	3707	G12

Note :

(i) Samples collected as per Bilateral Agreement dated [24.01.2024]

(ii) Ash, Moisture & Total Moisture as per applicable BIS norms

(iii) GCV as per applicable BIS norms

(iv) Sulphur (s) value has been put in the Bomb calorimeter as determined in the laboratory as per applicable BIS norms

(v) None of the experiment is performed by external service provider

(vi) This report should not be replicated or reproduced.

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New Delhi – 110020, India Phone:(91-11) 42118 8000
CIN : U 74130 MH 2004 PTC 145842

LUCKNOW

ANNEXURE-P/8

Rosa Power Supply Company Ltd

Appendix-II

TARIFF FILING FORMS (THERMAL) FOR DETERMINATION OF TARIFF PART-I

FY 2024-25 to FY 2028-29

PART-I

Checklist of Forms and other information/ documents for tariff filing for Thermal Stations

Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM- 1	Summary Sheet	√
Form-1(I)	Statement showing claimed capital cost	√
Form-1(II)	Statement showing Return on Equity	√
FORM-2	Plant Characteristics	√
FORM-3	Normative parameters considered for tariff computations	√
FORM- 4	Details of Foreign loans	√
FORM- 4A	Details of Foreign Equity	NA
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	√
FORM-5A	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New projects	NA
FORM-5B	Break-up of Capital Cost for Coal based projects	NA
FORM-5C	Break-up of Construction/Supply/Service packages	NA
FORM-5D	Details of variables , parameters , optional package etc. for New Project	NA
FORM-5Di	In case there is cost over run	NA
FORM-5Dii	In case there is time over run	NA
FORM-5E	In case there is claim of additional RoE	√
FORM- 6	Financial Package upto COD	√
FORM- 7	Details of Project Specific Loans	√
FORM- 8	Details of Allocation of corporate loans to various projects	NA
FORM-9A	Statement of Additional Capitalisation after COD	√
FORM – 9B	Statement of Additional Capitalisation during fag end of the useful life of Project	NA
FORM – 9Bi	Details of Assets De-capitalised during the period	NA
FORM – 9C	Statement showing reconciliation of Additional Capital expenditure (ACE) claimed with the capital additions as per books	√
FORM – 9D	Statement showing items/assets/works claimed under Exclusions	√
FORM- 9E	Statement of Capital cost	√
FORM- 9F	Statement of Capital Woks in Progress	√
FORM- 10	Financing of Additional Capitalisation	√
FORM- 11	Calculation of Depreciation	√
FORM- 12	Statement of Depreciation	√
FORM- 13	Calculation of Weighted Average Rate of Interest on Actual Loans	√
FORM- 13A	Calculation of Interest on Normative Loan	√
FORM- 13 B	Calculation of Interest on Working Capital	√
FORM- 13 C	Other Income as on COD	NA
FORM- 13 D	Incidental Expenditure during Construction up to Scheduled COD and up to Actual COD	NA
FORM- 13 E	Expenditure under different packages up to Scheduled COD and up to Actual COD	NA
FORM- 14	Draw Down Schedule for Calculation of IDC & Financing Charges	NA
FORM- 14A	Actual cash expenditure	√
FORM-15	Details/Information to be Submitted in respect of Fuel for Computation of Energy Charges1	√
FORM-16	Details/Information to be Submitted in respect of Capital Spares	NA
FORM-17	Liability Flow Statement	√
FORM-18	Station wise Cost Audit Report - Shall be submitted at the time of True-up	NA

PART-I FORM- 1

Summary Sheet

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project
Place (Region/District/State): Shahjahanpur, Uttar Pradesh

S. No.	Particulars	Unit	True up Petition No.2143 of 2024 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2		3	4	5	6	7	8
1.1	Depreciation	Rs. Cr	364.09	100.77	103.32	103.32	103.32	103.32
1.2	Interest on Loan	Rs. Cr.	56.57	28.52	17.64	6.61	0.19	-
1.3	Return on Equity[1]	Rs. Cr	251.75	251.75	252.51	253.28	253.28	253.28
1.4	Interest on Working Capital	Rs. Cr	104.13	116.71	121.69	122.68	123.79	125.14
1.5	O&M Expenses including Water Charges, Security Expenses and Ash Transportation Expenses	Rs. Cr	384.47	416.46	448.31	471.27	495.44	520.95
1.6	Application Fee and Statutory Charges	Rs. Cr	0.40	0.46	2.96	0.46	0.46	0.46
1.7	Compensation Allowance (If applicable)	Rs. Cr						
1.8	Special allowance (If applicable)	Rs. Cr						
	Total	**Rs. Cr**	**1,161.41**	**914.68**	**946.45**	**957.62**	**976.48**	**1,003.15**
2.1	Landed Fuel Cost (Domestic: coal)	Rs/Tone	4,317.84	4,343.91	4,343.91	4,343.91	4,343.91	4,343.91
	(%) of Fuel Quantity	(%)	100%	100%	100%	100%	100%	100%
2.2	Landed Fuel Cost (Imported Coal)	Rs/Tone	0	0	0	0	0	0
	(%) of Fuel Quantity	(%)	0%	0%	0%	0%	0%	0%
2.3	Secondary fuel oil cost	Rs/Unit	0.021	0.038	0.038	0.038	0.038	0.038
	Energy Charge Rate ex-bus (Paise/kWh)[2A,2B,2C]	Rs/Unit	2.889	3.280	3.280	3.280	3.280	3.280

Note:

1: Details of calculations, considering equity as per regulation, to be furnished.
2A: If multifuel is used simultaneously, give 2 in respect of every fuel individually.
2B: The total energy charge shall be worked out based on ex-bus energy scheduled to be sent out.
2C: The Energy Charge rate for the month shall be based on fuel cost(s) and GCV(s) for the month as per Regulations.

Petitioner

FORM- 1 (I)

Form-1(I) –Statement showing claimed capital cost:

Name of the Petitioner — Rosa Power Supply Company Limited
Name of the Generating Station — Rosa Thermal Power Project

Rs. Cr

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Opening Capital Cost*	6,550.30	6,550.30	6,584.30	6,584.30	6,584.30
	Add: Addition during the year / period	-	34.00	-	-	-
	Less: Decapitalisation during the year / period	-	-	-	-	-
	Less: Reversal during the year / period	-	-	-	-	-
	Add: Discharges during the year / period	-	-	-	-	-
	Closing Capital Cost	6,550.30	6,584.30	6,584.30	6,584.30	6,584.30
	Average Capital Cost	6,550.30	6,567.30	6,584.30	6,584.30	6,584.30

Note:
* Closing Capital Cost for FY 23-24 as claimed in 19-24 True up Petition No.2143 of 2024 which is under adjudication. Opening Capital Cost is subject to revision based on Order for True-up of control period 19-24.

Petitioner

FORM- 1 (II)

Form-1(II) –Statement showing Return on Equity:

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project
Place (Region/District/State):

Rs. Cr

Sl. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Opening Equity*	1,678.33	1,678.33	1,688.53	1,688.53	1,688.53
	Add: Increase due to addition during the year / period	-	10.20	-	-	-
	Less: Decrease due to de-capitalisation during the year / period	-	-	-	-	-
	Less: Decrease due to reversal during the year / period	-	-	-	-	-
	Add: Increase due to discharges during the year / period	-	-	-	-	-
	Closing Equity	1,678.33	1,688.53	1,688.53	1,688.53	1,688.53
	Average Equity	1,678.33	1,683.43	1,688.53	1,688.53	1,688.53
	Rate of ROE	15.0%	15.0%	15.0%	15.0%	15.0%
	Return on Equity	251.75	252.51	253.28	253.28	253.28

Note:
* Closing Equity for FY 23-24 as claimed in 19-24 True up Petition No.2143 of 2024 which is under adjudication. Opening Equity is subject to revision based on Order for True-up of control period 19-24.

Petitioner

PART-I FORM- 2

Plant Characteristics

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project
Place (Region/District/State):

Unit(s)/Block(s)/Parameters	Unit-I	Unit-II	Unit-III	Unit-IV
Installed Capacity (MW)	300	300	300	300
Schedule COD as per Investment Approval	31/03/2012	31/07/2012	31/03/2012	31/07/2012
Actual COD /Date of Taken Over (as applicable)	12/03/2010	30/06/2010	02/01/2012	01/04/2012
Pit Head or Non Pit Head	Non Pit Head	Non Pit Head	Non Pit Head	Non Pit Head
Name of the Boiler Manufacture	SEC	SEC	SEC	SEC
Name of Turbine Generator Manufacture	SEC	SEC	SEC	SEC
Main Steams Pressure at Turbine inlet (kg/Cm2) abs	166.7	166.7	166.7	166.7
Main Steam Temperature at Turbine inlet (°C)	538	538	538	538
Reheat Steam Pressure at Turbine inlet (kg/Cm2)	31.48	31.48	31.48	31.48
Reheat Steam Temperature at Turbine inlet (°C)	538	538	538	538
Main Steam flow at Turbine inlet under MCR condition (tons /hr)	912	912	912	912
Main Steam flow at Turbine inlet under VWO condition (tons /hr)	922	945	979	974
Unit Gross electrical output under MCR /Rated condition (MW)	300	300	300	300
Unit Gross electrical output under VWO condition (MW)	300	300	300	300
Conditions on which design turbine cycle heat rate guaranteed	Including piping loss and 1% Auxilary steam	Including piping loss and 1% Auxilary steam	Including piping loss and 1% Auxilary steam	Including piping loss and 1% Auxilary steam
% MCR	100% TMCR	100% TMCR	100% TMCR	100% TMCR
% Makeup Water Consumption	1%	1%	1%	1%
Design Capacity of Makeup Water System	40	40	40	40
Design Capacity of Inlet Cooling System (m3/hr)	34020	34020	34020	34020
Design Cooling Water Temperature (°C)	33	33	33	33
Back Pressure (kPa)	10.13	10.13	10.13	10.13
Steam flow at super heater outlet under BMCR condition (tons/hr)	1025	1025	1025	1025
Steam Pressure at super heater outlet under BMCR condition) (kg/Cm2)	176.3	176.3	176.3	176.3
Steam Temperature at super heater outlet under BMCR condition (°C)	541	541	541	541
Steam Temperature at Reheater outlet at BMCR condition (°C)	541	541	541	541
Design / Guaranteed Boiler Efficiency (%)	86.53	86.53	86.53	86.53
Design Fuel with and without blending of domestic/imported coal (kCal/kg)	3655 GCV	3655 GCV	3655 GCV	3655 GCV
Type of Cooling Tower	IDCT	IDCT	IDCT	IDCT
Type of cooling system	Water cooled	Water cooled	Water cooled	Water cooled
Type of Boiler Feed Pump	Electrically Driven	Electrically Driven	Electrically Driven	Electrically Driven
Fuel Details				
-Primary Fuel	Coal	Coal	Coal	Coal
-Secondary Fuel	LDO	LDO	LDO	LDO
-Alternate Fuels	NA	NA	NA	NA

Petitioner

PART-I FORM- 3

Normative parameters considered for tariff computations

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project

Year Ending March

Particulars	Unit	True up Petition 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
Base Rate of Return on Equity	%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
Effective Tax Rate	%	NA	NA	NA	NA	NA	NA
Target Availability	%	85%	85%	85%	85%	85%	85%
Auxiliary Energy Consumption	%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
Gross Station Heat Rate	kCal/kWh	2430	2430	2430	2430	2430	2430
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50	0.50
Cost of Coal for WC[1] (towards stock)	in Days	20	20	20	20	20	20
Cost of Coal for WC[1] (advance payment)	in Days	30	30	30	30	30	30
Cost of Main Secondary Fuel Oil for WC[1]	in Months	2	2	2	2	2	2
O & M expenses	Rs lakh / MW	31.84	34.04	35.83	37.71	39.69	41.78
Maintenance Spares for WC	% of O&M	20%	20%	20%	20%	20%	20%
Receivables for WC	in Days	45	45	45	45	45	45
Storage capacity of Primary fuel	MT	700,000	700,000	700,000	700,000	700,000	700,000
SBI Bank Rate (one year MCLR) + 350 basis points as on[2] 01 Apr of each FY	%	12.00%	12.15%	12.50%	12.50%	12.50%	12.50%
Blending ratio of domestic coal/imported coal	%	100:0	100:0	100:0	100:0	100:0	100:0
Water Charges	Rs Cr	2.39	2.41	2.51	2.61	2.71	2.82
Security Expenses	Rs Cr		5.57	5.85	6.14	6.45	6.77
Ash Transportation Expenses	Rs Cr		0.00	10.00	10.00	10.00	10.00
Statutory Charges	Rs Cr	0.40	0.46	2.96	0.46	0.46	0.46

1. For Coal based based generating stations
2. Mention relevant date

Petitioner

Details of Foreign loans
(Details only in respect of loans applicable to the project under petition)

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project
Exchange Rate at Drawal: Stage-I -Rs.46.50/US$ and Stage-II- Rs 50.586

Financial Year (Starting from COD)	2010-11				2011-12				2012-13				2013-14				2014-15				2015-16				2016-17			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)
US $- Stage-I																												
At the date of Drawl		5.00	46.5	232.50		4.69	46.5	218.09		4.27	46.5	198.71		3.85	46.5	179.18		3.43	46.5	159.65		3.01	46.5	140.12		2.59	46.5	120.59
Principal repayment schedule	Quarterly from 1-Oct-10	0.31	46.5	14.42	Quarterly	0.42	46.5	19.38		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53
Interest payment schedule	Quarterly	0.14	46.5	6.28	Quarterly	0.13	46.5	5.88	Quarterly	0.12	46.5	5.35	Quarterly	0.10	46.5	4.58	Quarterly	0.084	46.5	3.90	Quarterly	0.07	46.5	3.39	Quarterly	0.06	46.5	2.68
At the end of Year	Quarterly	4.69	46.5	218.09	Quarterly	4.27	46.5	198.71	Quarterly	3.85	46.5	179.18	Quarterly	3.43	46.5	159.65	Quarterly	3.01	46.5	140.12	Quarterly	2.59	46.5	120.59	Quarterly	2.17	46.5	101.06
US $ (Axis Bank)- Stage-II																												
At Date of Drawl						0.99	50.586	49.89		1.95	50.586	98.74		1.79	50.586	90.43		1.62	50.586	82.11		1.46	50.586	73.80		1.29	50.586	65.48
Principal repayment schedule	Quarterly from 1-Apr-12					0.02	50.586	1.04	Quarterly	0.16	50.586	8.31		0.16	50.586	8.31		0.16	50.586	8.31		0.16	50.586	8.31		0.16	50.586	8.31
Interest payment schedule	Quarterly					0.25	50.586	12.52	Quarterly	0.09	50.586	4.30	Quarterly	0.08	50.586	3.80		0.07	50.586	3.51		0.06	50.586	3.13		0.05	50.586	2.76
At the end of Year	Quarterly					0.97	50.586	48.85	Quarterly	1.79	50.586	90.43	Quarterly	1.62	50.586	82.11		1.46	50.586	73.80		1.29	50.586	65.48		1.13	50.586	57.17
US $ (Allahabad Bank)- Stage-II																												
At Date of Drawl						0.74	50.586	37.42		1.46	50.586	74.06		1.34	50.586	67.82		1.22	50.586	61.58		1.09	50.586	55.35		0.97	50.586	49.11
Principal repayment schedule	Quarterly from 1-Jan-12					0.02	50.586	0.78	Quarterly	0.12	50.586	6.24		0.12	50.586	6.24		0.12	50.586	6.24		0.12	50.586	6.24	0.1687085	0.12	50.586	6.24
Interest payment schedule	Quarterly					0.00	50.586	0.10	Quarterly	0.07	50.586	3.47	Quarterly	0.06	50.586	3.03		0.05	50.586	2.57		0.05	50.586	2.30		0.04	50.586	2.02
At the end of Year	Quarterly					0.72	50.586	36.64	Quarterly	1.34	50.586	67.82	Quarterly	1.22	50.586	61.58		1.09	50.586	55.35		0.97	50.586	49.11		0.85	50.586	42.87
US $ (Syndicate Bank)- Stage-II																												
At Date of Drawl						0.74	50.586	37.42		1.46	50.586	74.06		1.34	50.586	67.82		1.22	50.586	61.58		1.09	50.586	55.35		0.97	50.586	49.11
Principal repayment schedule	Quarterly from 1-Jan-12					0.02	50.586	0.78	Quarterly	0.12	50.586	6.24		0.12	50.586	6.24		0.12	50.586	6.24		0.12	50.586	6.24		0.12	50.586	6.24
Interest payment schedule	Quarterly					0.00	50.586	0.10	Quarterly	0.06	50.586	3.23	Quarterly	0.06	50.586	2.85		0.05	50.586	2.57		0.05	50.586	2.30		0.04	50.586	2.02
At the end of Year	Quarterly					0.72	50.586	36.64	Quarterly	1.34	50.586	67.82	Quarterly	1.22	50.586	61.58		1.09	50.586	55.35		0.97	50.586	49.11		0.85	50.586	42.87
US $ (IDBI)- Stage-II																												
At Date of Drawl						1.73	50.586	87.31		3.42	50.586	172.80		3.13	50.586	158.24		2.84	50.586	143.69		2.55	50.586	129.14		2.27	50.586	114.59
Principal repayment schedule	Quarterly from 1-Apr-12					0.04	50.586	1.82	Quarterly	0.29	50.586	14.55		0.29	50.586	14.55		0.29	50.586	14.55		0.29	50.586	14.55		0.29	50.586	14.55
Interest payment schedule	Quarterly					0.00	50.586	0.25	Quarterly	0.17	50.586	8.52	Quarterly	0.15	50.586	7.56		0.13	50.586	6.82		0.12	50.586	6.09		0.11	50.586	5.37
At the end of Year	Quarterly					1.69	50.586	85.49	Quarterly	3.13	50.586	158.24	Quarterly	2.84	50.586	143.69		2.55	50.586	129.14		2.27	50.586	114.59		1.98	50.586	100.04
US $ (ICICI)- Stage-II																												
At the date of Drawl[2]						4.86	50.586	246.05		9.76	50.586	493.72		9.76	50.586	493.72		9.76	50.586	493.72		9.76	50.586	493.72		9.76	50.586	493.72
Principal repayment schedule	Quarterly from 31-Aug-17					-	50.586	-	Quarterly	-	50.586	-		-	50.586	-		-	50.586	-		-	50.586	-		-	50.586	-
Interest payment schedule	Quarterly					0.01	50.586	0.69	Quarterly	0.48	50.586	24.39	Quarterly	0.47	50.586	23.65		0.47	50.586	23.65		0.47	50.586	23.65		0.47	50.586	23.65
At the end of Year	Quarterly					4.86	50.586	246.05	Quarterly	9.76	50.586	493.72	Quarterly	9.76	50.586	493.72		9.76	50.586	493.72		9.76	50.586	493.72		9.76	50.586	493.72
Indian Rupee																												
At the date of Drawl[2]				1,574.19				713.51				1,411.05				1,388.93				1,261.22				1,133.50				1,005.78
Principal repayment schedule	Quarterly from 1-Oct-10			128.91				15.66				127.72				127.72				127.72				127.72				127.72
Addition during the year				271.89				713.51				105.60																
Interest payment schedule	Quarterly			186.86	Quarterly			8.27	Quarterly			195.44	Quarterly			166.69	Quarterly			143.68	Quarterly			123.01	Quarterly			108.32
At the end of Year	Quarterly			1,717.17	Quarterly			1,411.05	Quarterly			1,388.93	Quarterly			1,261.22	Quarterly			1,133.50	Quarterly			1,005.78	Quarterly			878.06

Name of the Petitioner
Name of the Generating Station
Exchange Rate at Drawal

Financial Year (Starting from COD)	2017-18				2018-19				2019-20				2020-21				2021-22				2022-23			
1	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)	Date	Amount (US$ Crores)	Exchange Rate	Amount (Rs. Crores)
US $- Stage-I																								
At the date of Drawl		2.17	46.5	101.06		1.75	46.5	81.53		1.33	46.5	62.00		0.91	46.5	42.47		0.49	46.5	22.94		0.07	46.5	3.41
Principal repayment schedule		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53		0.42	46.5	19.53		0.07	46.5	3.41
Interest payment schedule	Quarterly	0.05	46.5	2.37	Quarterly	0.04	46.5	1.87	Quarterly	0.03	46.5	1.36	Quarterly	0.02	46.5	0.85	Quarterly	0.01	46.5	0.34		0.00	46.5	0.04
At the end of Year	Quarterly	1.75	46.5	81.53	Quarterly	1.33	46.5	62.00	Quarterly	0.91	46.5	42.47	Quarterly	0.49	46.5	22.94	Quarterly	0.07	46.5	3.41		-	46.5	-
US $ (Axis Bank)- Stage-II																								
At Date of Drawl		1.13	50.586	57.17		0.97	50.586	48.85		0.79	50.586	40.05		0.62	50.586	31.62		0.46	50.586	23.19		0.29	50.586	14.75
Principal repayment schedule		0.16	50.586	8.31		0.16	50.586	8.31		0.17	50.586	8.43		0.17	50.586	8.43		0.17	50.586	8.43		0.29	50.586	14.75
Interest payment schedule		0.05	50.586	2.39		0.04	50.586	2.01		0.05	50.586	2.48		0.03	50.586	1.41		0.02	50.586	0.91		0.00	50.586	0.22
At the end of Year		0.97	50.586	48.85		0.80	50.586	40.54		0.62	50.586	31.62		0.46	50.586	23.19		0.29	50.586	14.75		0	50.586	
US $ (Allahabad Bank)- Stage-II																								
At Date of Drawl		0.85	50.586	42.87		0.72	50.586	36.64		0.56	50.586	28.45		0.44	50.586	22.13		0.31	50.586	15.81		0.19	50.586	9.48
Principal repayment schedule		0.12	50.586	6.24		0.12	50.586	6.24		0.13	50.586	6.32		0.13	50.586	6.32		0.13	50.586	6.32		0.19	50.586	9.48
Interest payment schedule		0.03	50.586	1.75		0.03	50.586	1.47		0.03	50.586	1.74		0.02	50.586	1.26		0.02	50.586	1.13		0.00	50.586	0.18
At the end of Year		0.72	50.586	36.64		0.60	50.586	30.40		0.44	50.586	22.13		0.31	50.586	15.81		0.19	50.586	9.48		-	50.586	
US $ (Syndicate Bank)- Stage-II																								
At Date of Drawl		0.85	50.586	42.87		0.72	50.586	36.64		0.56	50.586	28.45		0.44	50.586	22.13		0.31	50.586	15.81		0.19	50.586	9.48
Principal repayment schedule		0.12	50.586	6.24		0.12	50.586	6.24		0.13	50.586	6.32		0.13	50.586	6.32		0.13	50.586	6.32		0.19	50.586	9.48
Interest payment schedule		0.03	50.586	1.75		0.03	50.586	1.47		0.03	50.586	1.70		0.02	50.586	0.95		0.01	50.586	0.59		0.00	50.586	0.11
At the end of Year		0.72	50.586	36.64		0.60	50.586	30.40		0.44	50.586	22.13		0.31	50.586	15.81		0.19	50.586	9.48		-	50.586	-
US $ (IDBI)- Stage-II																								
At Date of Drawl		1.98	50.586	100.04		1.69	50.586	85.49		1.39	50.586	70.08		1.09	50.586	55.33		0.80	50.586	40.57		0.51	50.586	25.82
Principal repayment schedule		0.29	50.586	14.55		0.29	50.586	14.55		0.29	50.586	14.75		0.29	50.586	14.75		0.29	50.586	14.75		0.51	50.586	25.82
Interest payment schedule		0.09	50.586	4.64		0.08	50.586	3.91		0.09	50.586	4.60		0.06	50.586	3.21		0.04	50.586	2.11		0.01	50.586	0.44
At the end of Year		1.69	50.586	85.49		1.40	50.586	70.94		1.09	50.586	55.33		0.80	50.586	40.57		0.51	50.586	25.82		0	50.586	-
US $ (ICICI)- Stage-II																								
At the date of Drawl[2]		9.76	50.586	493.72		9.14	50.586	462.36		6.81	50.586	344.30		4.33	50.586	219.10		1.86	50.586	93.90				
Principal repayment schedule		0.62	50.586	31.36		2.48	50.586	125.46		2.48	50.586	125.20		2.48	50.586	125.20		1.86	50.586	94.09				
Interest payment schedule		0.47	50.586	23.65		0.47	50.586	23.65		0.43	50.586	21.91		0.21	50.586	10.39		0.06	50.586	2.84				
At the end of Year		9.14	50.586	462.36		6.66	50.586	336.90		4.33	50.586	219.10		1.86	50.586	93.90		-	50.586	-				
Indian Rupee																								
At the date of Drawl[2]				878.06				750.34				1,081.73				789.62				495.70				95.85
Principal repayment schedule				127.72				127.72				292.11				293.92				399.85				95.85
Addition during the year																								
Interest payment schedule	Quarterly			93.63	Quarterly			78.95	Quarterly			126.07	Quarterly			94.67	Quarterly			54.73				3.26
At the end of Year	Quarterly			750.34	Quarterly			622.62	Quarterly			789.62	Quarterly			495.70	Quarterly			95.85				-

Petitioner

Details of Foreign Equity
(Details only in respect of Equity infusion if any applicable to the project under petition)

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project
Exchange Rate on date/s of infusion

S. No.	Financial Year	Year 1				Year 2				Year 3 and so on			
	1	2	3	4	5	6	7	8	9	10	11	12	13
		Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)	Date	Amount (Foreign Currency)	Relevant Exchange Rate	Amount (Rs. Lakh)
	Currency1[1]												
A.1	At the date of infusion[2]												
2													
3													
	Currency2[1]												
A.1	At the date of infusion[2]												
2													
3													
	Currency3[1]												
A.1	At the date of infusion[2]												
2													
3													
	Currency[1] and so on												
A.1	At the date of infusion[2]												
2													
3													

No Foreign Equity has been invested in the project, same is evident from various orders of Hon'ble Commission

1.Name of the currency to be mentioned e.g. US$, DM, etc.
2.In case of equity infusion more than once during the year, Exchange rate at the date of each infusion to be given

Petitioner

PART-I FORM- 5

Abstract of Admitted Capital Cost for the existing Projects

Name of the Company: Rosa Power Supply Company Limited
Name of the Power Station: Rosa Thermal Power Project

Last date of order of Commission for the project	Date (DD-MM-YYY)	16/05/2023
Reference of petition no. in which the above order was passed	Petition no.	1578 of 2020
Following details (whether admitted and /or considered) as on the last date of the period for which tariff is approved, in the above order by the Commission:		
Capital cost	(Rs. Cr)	6,519.73
Amount of un-discharged liabilities included in above (& forming part of admitted capital cost)		-
Amount of un-discharged liabilities corresponding to above admitted capital cost (but not forming part of admitted capital cost being allowed on cash basis)		-
Gross Normative Debt		4,850.58
Cumulative Repayment by end of FY 2023-24		4,605.30
Net Normative Debt for FY 2023-24 (Closing)*		245.28
Normative Equity by end of FY 2023-24		1,669.16
Cumulative Depreciation till end of FY 2023-24		4,605.30
Freehold land		9.82

Note: * Net Normative debt: Refer Table 6 of MYT order dated 16.05.2023

Petitioner

PART-I FORM- 5A

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

New Projects

RPSCL commissioned in Apr 2012 and hence does not fall under New Projects category as per UPERC Tariff Regulations 2024

Capital Cost Estimates

Board of Director/ Agency approving the Capital cost estimates:		
Date of approval of the Capital cost estimates:		
	Present Day Cost	Completed
Price level of approved estimates	As on Ea... of	...d COD
Foreign Exchange rate considered for the Capital cost estimates		
Capital Cost excluding IDC, IEDC & FC		
Foreign Component, if any (In Million US $ or...		
Domestic Component (Rs. Lakh)		
Capital cost excluding ID...		
IDC, IED...		
Fo... currency)		
Dom...		
Total ... ...g Cost (Rs. Lakh)		
Rate of ... ...ered		
Capital c... ...cluding IDC, IEDC, FC, FERV & Hedging Cost		
Foreign Component, if any (In Million US $ or the relevant Currency)		
Domestic Component (Rs. Lakh)		
Capital cost including IDC, IEDC & FC (Rs. Lakh)		
Schedule of Commissioning as per investment approval		
Scheduled COD of Unit-I		
Scheduled COD of Unit-II		
Scheduled COD of Unit-III		
Scheduled COD of Unit-IV		
Scheduled COD of last Unit/Block		

Not Applicable as per UPERC 2 (xliv) of UPERC Tariff Regulations, 2024

Note:
1. Copy of Investment approval letter should be enclosed.
2. Details of Capital Cost are to be furnished as per FORM-5B or 5C as applicable.
3. Details of IDC & Financing Charges are to be furnished as per FORM-14.

Petitioner

PART-I FORM- 5B

Break-up of Capital Cost for New Coal based projects

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project

RPSCL commissioned in Apr 2012 and hence does not fall under New Projects category as per UPERC Tariff Regulations 2024

(Amount in Rs. Lakhs)

S.No.	Break Down	As per Original Estimates as per Investment Approval (3)	Actual Capital Expenditure as on COD/ anticipated COD (4)	Liabilities/Provisions (5)	Variation (3-4-5) (6)	Specific Reasons for Variation (7)	Estimated Capital expenditure upto Cut-off date (8)
			Actual Amount				
1	2	3	4	5	6	7	8
1	Cost of Land & Site Development						
1.1	Land*						
1.2	Rehabilitation & Resettlement (R&R)						
1.3	Preliminary Investigation & Site Development						
	Total Land & Site Development						
2	Plant & Equipment						
2.1	Steam Generator Island						
2.2	Turbine Generator Island						
2.3	BOP Mechanical						
2.3.1	External water supply system						
2.3.2	CW system						
2.3.3	DM water Plant						
2.3.4	Clarification plant						
2.3.5	Chlorination Plant						
2.3.6	Fuel Handling & Storage system						
2.3.7	Ash Handling System						
2.3.8	Coal Handling Plant						
2.3.9	Rolling Stock and Locomotives						
2.3.10	MGR						
2.3.11	Air Compressor System						
2.3.12	Air Condition & Ventilation System						
2.3.13	Firefighting System						
2.3.14	HP/LP Piping						
2.3.15	FGD system, if any						
2.3.16	De-salination plant for sea-water intake						
2.3.17	External coal handling in Jetty, if any						
	Total BOP Mechanical						
2.4	BOP Electrical						
2.4.1	Switch Yard Package						
2.4.2	Transformers Package						
2.4.3	Switch gear Package						
2.4.4	Cables, Cable facilities & grounding						
2.4.5	Lighting						
2.4.6	Emergency D.G. set						
	Total BOP Electrical						
2.5	Control & Instrumentation (C&I) Package						
	Total Plant & Equipment excluding taxes & Duties						
2.6	Taxes & Duties						
3	Initial Spares						
4	Civil Works						
4.1	Main plant/Adm. Building						
4.2	CW system						
4.3	Cooling Towers						
4.4	DM water Plant						
4.5	Clarification plant						
4.6	Chlorination plant						
4.7	Fuel handling & Storage system						
4.8	Coal Handling Plant						
4.9	MGR &Marshalling Yard						
4.1	Ash Handling System						
4.11	Ash disposal area development						
4.12	Firefighting System						
4.13	Township & Colony						
4.14	Temp. construction and enabling works						
4.15	Road & Drainage						
	Total Civil works						
5	Construction & Pre- Commissioning Expenses						
5.1	Erection Testing and commissioning						
5.2	Site supervision						
5.3	Operator's Training						
5.4	Construction Insurance						
5.5	Tools & Plant						
5.6	Startup fuel						
	Total Construction & Pre-Commissioning Expenses						
6	Overheads						
6.1	Establishment						
6.2	Design & Engineering						
6.3	Audit & Accounts						
6.4	Contingency						
	Total Overheads						
7	Total Capital cost excluding IDC & FC						
8	IDC, FC, FERV &Hedging Cost						
8.1	Interest During Construction (IDC)						
8.2	Financing Charges (FC)						
8.3	Foreign Exchange Rate Variation (FERV)						
8.4	Hedging Cost						
	Total of IDC, FC, FERV & Hedging Cost						
9	Capital cost including IDC, FC, FERV & Hedging Cost						

Project cost has been finalised and approved earlier by Hon'ble Commission and hence this format is not applicable, CoD achieved prior to 01 Apr 2024

*Provide details of Freehold land and Lease hold land separately.

Note:

1. In case of cost variation, a detailed note giving reasons of such variation should be submitted clearly indicating whether such cost over-run was beyond the control of the generating company.
2. In case of both time & cost overrun, a detailed note giving reasons of such time and cost over-run should be submitted clearly bringing out the agency responsible and whether such time and cost overrun was beyond the control of the generating company.
3. The implication on cost due to time over run, if any shall be submitted separately giving details of increase in prices in different packages from scheduled COD to Actual COD/anticipated COD, increase in IEDC from scheduled COD to actual COD/anticipated COD and increase of IDC from scheduled COD to actual anticipated COD.
4. Impact on account of each reason for Time over run on Cost of project should be quantified and substantiated with necessary documents and supporting workings.
5. A list of balance work assets/work wise including initial spare on original scope of works along with estimate shall be furnished positively.

Petitioner

Break-up of Construction/Supply/Service packages

Name of the Petitioner: **Rosa Power Supply Company Limited**
Name of the Generating Station: **Rosa Thermal Power Plant**

1	Name/No. of Construction / Supply / Service Package	Package A	Package B	Package C	...	Total Cost of all packages
2	Scope of works[1] (in line with head of cost break-ups as applicable)	**Project cost has been finalised and approved earlier by Hon'ble Commission and hence this format is not applicable** **Further, all packages are awarded through ICB route**				
3	Whether awarded through ICB/DCB/ Departmentally/ Deposit Work					
4	No. of bids received					
5	Date of Award					
6	Date of Start of work					
7	Date of Completion of Work/Expected date of completion of work					
8	Value of Award[2] in (Rs. Lakh)					
9	Firm or With Escalation in prices					
10	Actual capital expenditure till the completion or up to COD whichever is earlier (Rs Lakh)					
11	Taxes & Duties and IEDC (Rs. Lakh)					
12	IDC, FC, FERV & Hedging cost (Rs. Lakh)					
13	Sub -total (10+11+12) (Rs. Lakh)					

Note:
1. The scope of work in any package should be indicated in conformity of Capital cost break-up for the coal based plants in the FORM-5B to the extent possible.
2. If there is any package, which need to be shown in Indian Rupee and foreign currency (ies), the same should be shown separately along with the currency, the exchange rate and the date e.g. Rs.80 Cr. +US$50m=Rs.390Cr. at US$=Rs. 62 as on say 01.04.24.

Petitioner

PART-I FORM- 5D

Details of variables, parameters, optional package etc. for New Project

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project

Unit Size		**300 MW**
Number of Units		**4**
Greenfield/Extension		**Greenfield**
S. No.	**Variables**	**(Design Operating Range) Values**
1	Coal Quality – Calorific Value	
2	Ash Content	
3	Moisture Content	
4	Boiler Efficiency	
5	Suspended Particulate Matter	
6	Ash Utilization	
7	Boiler Configuration	
8	Turbine Heat Rate	
9	CW Temperature	
10	Water Source	
11	Distance of Wa	
12	Clarifier	
13		
14		
15		
16	T	and Distance
17	Ty	
18	Fou	e (Chimney)
19	Wate	able
20	Seismic and Wind Zone	
21	Condensate Cooling Method	
22	Desalination/RO Plant	
23	Evacuation Voltage Level	
24	Type of Coal (Domestic/Imported)	
Parameter/Variables		
Completion Schedule		
Terms of Payment		
Performance Guarantee Liability		
Basis of Price (Firm/Escalation-Linked)		
Equipment Supplier (Country of Origin)		
Optional Packages		Yes/No
Desalination Plant/RO Plant		
MGR		
Railway Siding		
Unloading Equipment at Jetty		
Rolling Stock/Locomotive		
FGD Plant		
Length of Transmission Line till Tie Point (in km)		

RPSCL commissioned in Apr 2012 and hence does not fall under New Projects category as per Clause 2 (xliv) of UPERC Tariff Regulations, 2024

Petitioner

PART-I FORM- 5DI

In case there is cost over run

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

S. No.	Break Down	Original Cost (Rs. Lakh) as approved by the Board of Members Total Cost	Actual/ Estimated Cost as incurred/to be incurred (Rs. Lakh) Total Cost	Difference Total Cost	Reasons for Variation (Please submit supporting computatio ns and	Increase in soft cost due to increase in hard cost
1	Cost of Land & Site Development					
1.1	Land*					
1.2	Rehabilitation & Resettlement (R&R)					
1.3	Preliminary Investigation & Site Development					
2	Plant & Equipment					
2.1	Steam Generator Island					
2.2	Turbine Generator Island					
2.3	BOP Mechanical					
2.3.1	Fuel Handling & Storage system					
2.3.2	External water supply system					
2.3.3	DM water Plant					
2.3.4	Clarification plant					
2.3.5	Chlorination Plant					
2.3.6	Fuel Handling & Storage system					
2.3.7	Ash Handling System					
2.3.8	Coal Handling Plant					
2.3.9	Rolling Stock and Locomotives					
2.3.10	MGR					
2.3.11	Air Compressor System					
2.3.12	Air Condition & Ventilation System					
2.3.13	Fire Fighting System					
2.3.14	HP/LP Piping					
	Total BOP Mechanical					
	BOP Electrical					
2.4.1	Switch Yard Package					
2.4.2	Transformers Package					
2.4.3	Switch gear Package					
2.4.4	Cables, Cable facilities & grounding					
2.4.5	Lighting					
2.4.6	Emergency D.G. set					
	Total BOP Electrical					
2.5	Control & Instrumentation (C & I) Package					
	Total Plant & Equipment excluding taxes & Duties					
3	Initial Spares					
4	Civil Works					
4.1	Main plant/ Adm. Building					
4.2	CW system					
4.3	Cooling Towers					
4.4	DM water Plant					
4.5	Clarification plant					
4.6	Chlorination plant					
4.7	Fuel handling & Storage system					
4.8	Coal Handling Plant					
4.9	MGR &Marshalling Yard					
4.1	Ash Handling System					
4.11	Ash disposal area development					
4.12	Firefighting System					
4.13	Township & Colony					
4.14	Temp. construction & enabling works					
4.15	Road & Drainage					
	Total Civil works					
5	Construction & Pre-Commissioning Expenses					
5.1	Erection Testing and commissioning					
5.2	Site supervision					
5.3	Operator's Training					
5.4	Construction Insurance					
5.5	Tools & Plant					
5.6	Startup fuel					
	Total Construction & Pre-Commissioning Expenses					
6	Overheads					
6.1	Establishment					
6.2	Design & Engineering					
6.3	Audit & Accounts					
6.4	Contingency					
	Total Overheads					
7	Capital cost excluding IDC & FC					
8	IDC, FC, FERV &Hedging Cost					
8.1	Interest During Construction (IDC)					
8.2	Financing Charges (FC)					
8.3	Foreign Exchange Rate Variation (FERV)					
8.4	Hedging Cost					
	Total of IDC, FC,FERV & Hedging Cost					
9	Capital cost including IDC, FC, FERV & Hedging Cost					

RPSCL commissioned in Apr 2012

Cost over run: Nil

*Submit details of Freehold and Lease hold land

Note: Impact on account of each reason for Cost overrun should be quantified and substantiated with necessary documents and supporting workings.

Petitioner

In case there is time over run

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

S. No.	Description of Activity /Works /Service	Original Schedule (As per Planning)		Actual Schedule (As per Actual)		Time Over-Run	Reasons for delay	Other Activity affected (Mention S. No. of activity affected)
		Start Date	Completion Date	Actual Start Date	Actual Completion Date	Days		
1	No time over run as the project commissioned within the stiulated time schedule							
2								
3								
4								
5								
6								
7								
8								
9								
....	.....							

1. Delay on account of each reason in case of time overrun should be quantified and substantiated with necessary documents and supporting workings.

2. Indicate the activities on critical path.

Petitioner

PART-I FORM- 5E

In case there is claim of additional RoE

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Statio Rosa Thermal Power Project

Project	Completion Time as per Investment approval (Months)				Actual Completion time				Qualifying time schedule (as per regulation)
	Start Date	Scheduled COD (Date)	Completion time in Months	Installed Capacity	Start Date*	Actual COD (Date)	Actual Completion time in Months	Tested Capacity	Months
Unit 1	No Additional RoE is claimed for the Control Period FY 2024-25 to FY 2028-29								
Unit 2									
Unit 3									
Unit 4									

Petitioner

Financial Package upto COD

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project
Date of Commercial Operation of the Station[2] 01-Apr-12

	Financial Package as Approved		Financial Package as on COD				As Admitted on COD	
	Currency and Amount[3]		Currency and Amount[3]				Currency and Amount[3]	
1	2	3	4	5			6	7
Loan-I	USD	200m	**RPSCL commissioned in Apr 2012 and Project cost has been finalised and approved earlier by Hon'ble Commission and hence this format is not applicable**					
Loan-II								
and so on								
Equity-								
Foreign								
Domestic								
Total Equity								
Debt : Equity Ratio								

Note:
1. Say Rs. 80 Cr. + US$ 200 m or Rs. 1320 Cr. including US$ 200 m at an exchange rate of US$=Rs. 62
2. Provide details on commercial operation as on COD of each Unit.
3. For example: US $ 200m, etc.

Petitioner

PART-I FORM- 7

Details of project specific loans

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan[1]	RPSCL commissioned in Apr 2012 and Project cost has been finalised and approved earlier by Hon'ble Commission and hence this format is not applicable					
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2024/COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]						
Are there any Caps/Floor[9]						
If above is yes, specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequency[12]						
Repayment Instalment[13,14]						
Base Exchange Rate[16]						
Are foreign currency loan hedged?						
If above is yes, specify details[17]						

Note:
1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB,PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US$, DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2024 for existing assets and as on COD for the remaining
4. Where the loan has been refinanced, details in the Form are to be given for the loan refinanced. However, the details of the original loan are to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form are to be given separately for all the units in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual etc.
13. Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal& repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2024 or COD, whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

Petitioner

PART-I FORM- 8

Details of Allocation of corporate loans to various projects

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Particulars	Package1	Package2	Package3	Package4	Package5	Remarks
1	2	3	4	5	6	7
Source of Loan[1]						
Currency[2]						
Amount of Loan sanctioned						
Amount of Gross Loan drawn upto 31.03.2024/ COD [3,4,5,13,15]						
Interest Type[6]						
Fixed Interest Rate, if applicable						
Base Rate, if Floating Interest[7]						
Margin, if Floating Interest[8]						
Are there any Caps/Floor[9]	Yes/No			Yes/No	Yes/No	
If above is yes, specify caps/floor						
Moratorium Period[10]						
Moratorium effective from						
Repayment Period[11]						
Repayment effective from						
Repayment Frequen						
Repayment Instalmer						
Base Exchange Rate[16]						
Are foreign currency loan ed?						
If above is yes, specify details[17]						
	Distribution of loan packages to various projects					
Name of the Projects						Total
Project 1						
Project 2						
Project 3 and so on						

No Corporate loan has been allocated to other projects

Note:
1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB,PNB, SBI, ICICI, IFC, PFC etc.
2. Currency refers to currency of loan such as US$, DM, Yen, Indian Rupee etc.
3. Details are to be submitted as on 31.03.2024 for existing assets and as on COD for the remaining
4. Where the loan has been refinanced, details in the Form are to be given for the loan refinanced. However, the details of the original loan are to be given separately in the same form.
5. If the Tariff in the petition is claimed separately for various units, details in the Form are to be given separately for all the units in the same form.
6. Interest type means whether the interest is fixed or floating.
7. Base rate means the base as PLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.
8. Margin means the points over and above the floating rate.
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.
10. Moratorium period refers to the period during which loan servicing liability is not required.
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual etc.
13. Where there is more than one drawal/repayment for a loan, the date & amount of each drawal/repayment may also be given separately.
14. If the repayment installment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.
15. In case of Foreign loan, date of each drawal& repayment along with exchange rate at that date may be given.
16. Base exchange rate means the exchange rate prevailing as on 31.03.2024 or COD, whichever is later.
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging etc.
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately.
20. At the time of truing up provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing etc.

Petitioner

PART-I FORM- 9A

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project
For Financial Year FY 2025-26

Amount in Rs. Cr

Sl. No.	Head of Work/ Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
(1)	(2)	(3)	(4)	(5=3-4)	(6)	(7)	(8)	(9)
1	Ash Dyke - Lagoon 2 - 2nd raising	34.00				Regulation 21(B) (d) of UPERC Tariff Regulations, 2024	Justification provided in the Petition	Claiming under current control period

1. In case the project has been completed and cost has already been admitted under any tariff notification(s) in the past, fill column 10 giving the cost as admitted for the purpose of tariff notification already issued by (Name of the authority) (Enclose copy of the tariff Order)
2. The above information needs to be furnished separately for each year / period of tariff period 2024-29.
3. In case of de-capitalisation of assets separate details to be furnished at column 1, 2, 3 and 4. Further, the original book value and year of capitalisation of such asset to be furnished at column 8. Where de-caps are on estimated basis the same to be shown separately.
4. Where any asset is rendered unserviceable the same shall be treated as de-capitalised during that year and original value of such asset to be shown at col. 3. And impaired value if any, year of its capitalisation to be mentioned at column 8.
5. Justification against each asset of capitalization should be specific to regulations under which claim has been made and the necessity of capitalization of that particular asset.

Note:
1. Fill the form in chronological order year wise along with detailed justification clearly bringing out the necessity and the benefits accruing to the beneficiaries.
2. In case initial spares are purchased along with any equipment, then the cost of such spares should be indicated separately. Eg. Rotor - 50 Crs. Initial spares- 5 Crs.

Petitioner

PART-I FORM- 9B

Statement of Additional Capitalisation during fag end of useful life of the Project

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

S. No.	Year	Work / Equipment added during last five years of useful life of each Unit/Station	ACE Claimed (Actual / Projected)				Regulations under which claimed	Justification	Impact on life extension
			Accrual basis	Un- discharged Liability included in col. 4	Cash basis	IDC included in col. 4			
1	2	3	4	5	(6=4-5)	7	8	9	10
		Last five year of useful life shall commence from FY 30	Not applicable						

Note:
1. Cost Benefit analysis for capital additions done should be submitted along with petition for approval of such schemes
2. Justification for additional capital expenditure claim for each asset should be relevant to regulations under which claim has been made and the necessity of capitalization of the asset.

Petitioner

PART-I FORM- 9Bi

Details of Assets De-capitalized during the period

Name of the Petitioner Rosa Power Supply Company Limited

Name of the Generating Station Rosa Thermal Power Project

Region State District

S. No.	Name of the Asset	Nature of decapitalization (whether claimed under exclusion or as additional capital expenditure)	Original Value of the Asset Capitalised	Year Put to use	Depreciation recovered till date of de-capitalization
1	2	3	4	5	6
1	No decapitalization claimed under current control period				
2					
3					
4					
5					

Note: Year wise detail need to be submitted.

Petitioner

PART-I FORM- 9C

Statement showing reconciliation of ACE claimed with the capital additions as per books

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project
COD

(Rs Crs)

Sl. No	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7
	Closing Gross Block	7157.36	Shall be submitted at the time of True-up, once audited accounts are finalized			
	Less: Opening Gross Block	7157.36				
	Total Additions as per books	0.00				
	Less: Additions pertaining to other Stages (give Stage wise breakup)	0.00				
	Net Additions pertaining to instant project/Unit/Stage	0.00				
	Less: Exclusions (items not allowable / not claimed)	0.00				
	Net Additional Capital Expenditure Claimed	0.00				

Note: Reason for exclusion of any expenditure shall be given in Clear terms

Petitioner

PART-I FORM- 9D

Statement showing items/assets/works claimed under Exclusions:

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project
COD

S. No.	Head of Work / Equipment	ACE Claimed under Exclusion				Justification
		Accrual basis	Un- discharged Liability included in col. 3	Cash basis	IDC included in col. 3	
1	2	3	4	(5=3-4)	6	7
	No additional capitalization claimed under this category					

Note:
1. Exclusions claimed on assets not allowed in Tariff should be supported by the specific reference of Commission Order date, Petition No., amount disallowed, etc.
2. For inter unit transfer, nature of transfer i.e. temporary or permanent should be mentioned. It is to be certified that exclusion sought in receiving station only and not in sending station or in both the station

Petitioner

PART-I FORM- 9E

Statement of Capital cost (As per books)
(To be given for relevant dates and year wise)

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Crores

S. No.	Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
A	Opening Gross Block Amount as per books	7157.36	Shall be submitted at the time of True-up, once audited accounts are finalized			
B	Addition in Gross Block Amount during the period (Direct purchases)	0.00				
C	Addition in Gross Block Amount during the period (Transferred from CWIP) as per books	0.00				
D	a)Deletion in Gross Block Amount during the period	0.00				
E	a)Closing Gross Block Amount as per books	7157.36				

Petitioner

PART-I FORM- 9F

Statement of Capital works in progress
(To be given for relevant dates and year wise)

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Cr

Sl. No.	Particulars	As on relevant date. 31/03/2025	As on relevant date. 31/03/2026	As on relevant date. 31/03/2027	As on relevant date. 31/03/2028	As on relevant date. 31/03/2029
A	Opening CWIP as per books	5.47	Shall be submitted at the time of True-up, once audited accounts are finalized			
	Amount of capital liabilities in A(a) above	0.00				
B	Addition in CWIP during the period	5.96				
	Amount of capital liabilities in B(a) above	1.07				
C	Transferred to Gross Block Amount during the period	0.00				
	Amount of capital liabilities in C(a) above	0.00				
D	a) Deletion in CWIP during the period	0.00				
	b) Amount of capital liabilities in D(a) above	0.00				
E	a) Closing CWIP as per books	11.43				
	b) Amount of capital liabilities in E(a) above	1.07				
	c) Amount of IDC in E(a) above	0.00				
	d) Amount of FC in E(a) above	0.00				
	e) Amount of FERV in E(a) above	0.00				
	f) Amount of Hedging Cost in E(a) above	0.00				
	g) Amount of IEDC in E(a) above	0.00				

Note:

1. Relevant date/s means date of COD of unit/s/station and financial year start date and end date

Petitioner

Financing of Additional Capitalisation

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project
Date of Commercial Operation

Amount in Rs. Cr

	Estimated					Admitted				
Financial Year (Starting from COD)[1]	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/Equipment		34.00								
Financing Details										
Loan (Normative)*		23.80								
Total Loan[2]		23.80								
Equity										
Internal Resources		10.20								
Others (Pl. specify)										
Total		34.00								

* Entirely funded through internal accurals however, as per Tariff Regulations, 2024 claimed normative debt @ 70% of toal amount capitalised

Note:
1. Year 1 refers to Financial Year of COD and Year 2; Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8

Petitioner

PART-I FORM- 11

Calculation of Depreciation

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project

Amount in Rs. Cr

S. No.	Name of the Assets[1]	FY 25				FY 26				FY 27			
		Gross Block as on 31.03.2024 or as on COD, whichever is later and subsequently for each year thereafter upto 31.03.29	Addition during the year	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for FY 25	Gross Block as on 01.04.2025	Addition during the year	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for FY 26	Gross Block as on 01.04.2026	Addition during the year	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for FY 27
	1	2	3	5	6= (Col.2 + Col.3/2) X Col.3			3	4= Col.2 X Col.3			3	4= Col.2 X Col.3
1	Freehold Land	9.82	-	0.00%	0.00	9.82	-	0.00%	0.00	9.82	-	0.00%	0.00
2	Leasehold Land	22.71	-	3.34%	0.76	22.71	-	3.34%	0.76	22.71	-	3.34%	0.76
3	Building-Others	117.32	-	3.34%	3.92	117.32	34.00	3.34%	4.49	151.32	-	3.34%	5.05
4	Building-Plant	291.71	-	3.34%	9.74	291.71	-	3.34%	9.74	291.71	-	3.34%	9.74
5	Roads	21.96	-	3.34%	0.73	21.96	-	3.34%	0.73	21.96	-	3.34%	0.73
6	Temporary Erections	0.11	-	100.00%	0.11	0.11	-	100.00%	0.11	0.11	-	100.00%	0.11
7	Boilers and Plant	6043.11	-	5.83%	352.31	6043.11	-	5.83%	352.31	6043.11	-	5.83%	352.31
8	Batteries	8.07	-	5.83%	0.47	8.07	-	5.83%	0.47	8.07	-	5.83%	0.47
9	Office Furniture and Fittings	10.30	-	6.33%	0.65	10.30	-	6.33%	0.65	10.30	-	6.33%	0.65
10	Office Equipments	3.53	-	6.33%	0.22	3.53	-	6.33%	0.22	3.53	-	6.33%	0.22
11	Air Conditioning Plant	17.89	-	5.83%	1.04	17.89	-	5.83%	1.04	17.89	-	5.83%	1.04
12	Vehicles	3.76	-	9.50%	0.36	3.76	-	9.50%	0.36	3.76	-	9.50%	0.36
13	TOTAL	6550.30	0.00	5.65%	370.32	6550.30	34.00	5.66%	370.89	6584.30	0.00	5.64%	371.46
14	Weighted Average Rate of Depreciation (%)			5.65%				5.66%				5.64%	

Name of the Petitioner
Name of the Generating Station

S. No.	Name of the Assets[1]	FY 28				FY 29			
		Gross Block as on 01.04.2027	Addition during the year	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for FY 28	Gross Block as on 01.04.2028	Addition during the year	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for FY 29
	1			3	4= Col.2 X Col.3			3	4= Col.2 X Col.3
1	Freehold Land	9.82	-	0.00%	0.00	9.82	-	0.00%	0.00
2	Leasehold Land	22.71	-	3.34%	0.76	22.71	-	3.34%	0.76
3	Building-Others	151.32	-	3.34%	5.05	151.32	-	3.34%	5.05
4	Building-Plant	291.71	-	3.34%	9.74	291.71	-	3.34%	9.74
5	Roads	21.96	-	3.34%	0.73	21.96	-	3.34%	0.73
6	Temporary Erections	0.11	-	100.00%	0.11	0.11	-	100.00%	0.11
7	Boilers and Plant	6043.11	-	5.83%	352.31	6043.11	-	5.83%	352.31
8	Batteries	8.07	-	5.83%	0.47	8.07	-	5.83%	0.47
9	Office Furniture and Fittings	10.30	-	6.33%	0.65	10.30	-	6.33%	0.65
10	Office Equipments	3.53	-	6.33%	0.22	3.53	-	6.33%	0.22
11	Air Conditioning Plant	17.89	-	5.83%	1.04	17.89	-	5.83%	1.04
12	Vehicles	3.76	-	9.50%	0.36	3.76	-	9.50%	0.36
13	TOTAL	6584.30	0.00	5.64%	371.46	6584.30	0.00	5.64%	371.46
14	Weighted Average Rate of Depreciation (%)			5.64%				5.64%	

Petitioner

Statement of Depreciation

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Cr

S. No.	Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
1	Opening Capital Cost	6,550.30	6,550.30	6,550.30	6,584.30	6,584.30	6,584.30
2	Closing Capital Cost	6,550.30	6,550.30	6,584.30	6,584.30	6,584.30	6,584.30
3	Average Capital Cost	6,550.30	6,550.30	6,567.30	6,584.30	6,584.30	6,584.30
4	Freehold land	9.82	9.82	9.82	9.82	9.82	9.82
5	Rate of depreciation	5.56%	1.54%	1.57%	1.57%	1.57%	1.57%
6	Depreciable value	364.09	100.77	103.32	103.32	103.32	103.32
7	Balance useful life at the beginning of the period	14.00	13.00	12.00	11.00	10.00	9.00
8	Remaining depreciable value	1,674.15	1,310.06	1,209.29	1,136.56	1,033.24	929.91
9	Depreciation (for the period)	364.09	100.77	103.32	103.32	103.32	103.32
10	Depreciation (annualised)	364.09	100.77	103.32	103.32	103.32	103.32
11	Cumulative depreciation at the end of the period	4,585.21	4,685.98	4,789.31	4,892.63	4,995.96	5,099.28
12	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2024/ Station COD						
13	Less: Cumulative depreciation adjustment on account of de-capitalisation						
14	Net Cumulative depreciation at the end of the period	4,585.21	4,685.98	4,789.31	4,892.63	4,995.96	5,099.28
		70.0%	71.5%	73.1%	74.3%	75.9%	77.4%

Particulars	FY 24-25	FY 25-26
Deprecation Limit (%)	90%	90%
Max Dep allowed (Rs. Cr)	5,895.27	5,925.87
Depreciation @ 70% (Rs. Cr)	4,585.21	4,585.21
Balance Depreciation (Rs. Cr)	1,310.06	1,239.89
Balance Life of asset (Years)	13	12
Depreciation allowed (Rs.Cr)	100.77	103.32

Petitioner

FORM- 13 Calculation of Weighted Average Rate of Interest on Actual Loans

Name of the Petitioner Rosa Power Supply Company Limited

Name of the Generating Station Rosa Thermal Power Project

Rs. in Cr

	Particulars / Financial Year	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
A	**ECB (US $ in Crore)**						
1	Gross loan - Opening / Sanction	23.40	23.40	23.40	23.40	23.40	-
2	Cumulative repayments of Loans upto previous year	8.24	11.84	15.54	19.14	22.12	-
3	Net loan - Opening	15.17	11.57	7.86	4.26	1.28	-
4	Add: Drawal(s) during the Year	-	-	-	-	-	-
5	Less: Repayment (s) of Loans during the year	3.60	3.71	3.60	2.98	1.28	-
6	Net loan - Closing	11.57	7.86	4.26	1.28	-	-
7	Average Net Loan	13.37	9.71	6.06	2.77	0.64	-
8	Average Rate of Interest (%)	7.19%	7.57%	6.46%	6.21%	13.75%	-
9	Interest	0.96	0.74	0.39	0.17	0.02	-
B	**ECB (Rs. in Cr)**						
1	USD Rate as on year opening date	65.04	69.17	75.39	73.50	75.81	-
2	USD Rate as on year end date	69.17	75.39	73.50	75.81	74.35	-
3	Gross loan - Opening/ Sanction	1,406.34	1,406.34	1,406.34	1,406.34	1,406.34	-
4	Cumulative repayments of Loans upto previous year	426.62	606.26	813.61	1,092.98	1,309.05	-
5	Net Opening balance	979.72	800.08	592.72	313.36	97.28	-
6	Add: Drawal(s) during the Year	-	-	-	-	-	-
7	Less: Repayment (s) of Loans during the year	179.64	207.36	279.36	216.08	97.28	-
8	Closing balance	800.08	592.72	313.36	97.28	-	-
9	Average Net Loan	889.90	696.40	453.04	205.32	48.64	-
10	Rate of Interest on Loan on annual basis (%)	7.55%	7.00%	5.63%	5.34%	11.88%	-
11	Interest on loan excluding FERV	67.19	48.75	25.53	10.96	1.45	-

C	**Rupee Term Loan**						
1	Gross loan - Opening/ Sanction	3,534.01	3,534.01	3,534.01	3,534.01	3,534.01	-
2	Cumulative repayments of Loans upto previous year	2,156.56	2,452.28	2,744.39	3,038.31	3,438.16	-
3	Net loan - Opening	1,377.45	1,081.73	789.62	495.70	95.85	-
4	Add: Drawal(s) during the Year	-	-	-	-	-	-
5	Less: Repayment (s) of Loans during the year	295.71	292.11	293.92	399.85	95.85	-
6	Net loan - Closing	1,081.73	789.62	495.70	95.85	-	-
7	Average Net Loan	1,229.59	935.68	642.66	295.78	47.93	-
8	Rate of Interest on Loan on annual basis	12.41%	13.47%	14.73%	18.50%	12.25%	-
9	Interest on loan	152.55	126.04	94.66	54.73	1.47	-
D	**Total Loan (ECB and RTL)**						
1	Gross loan - Opening	4,940.35	4,940.35	4,940.35	4,940.35	4,940.35	-
2	Cumulative repayments of Loans upto previous year	2,583.18	3,058.54	3,558.00	4,131.29	4,747.21	-
3	Net loan - Opening	2,357.17	1,881.81	1,382.34	809.06	193.13	-
4	Add: Drawal(s) during the Year	-	-	-	-	-	-
5	Less: Repayment (s) of Loans during the year	475.36	499.47	573.28	615.93	193.13	-
6	Net loan - Closing	1,881.81	1,382.34	809.06	193.13	-	-
7	Average Net Loan	2,119.49	1,632.08	1,095.70	501.10	96.57	-
8	Interest on loan	219.74	174.79	120.19	65.68	2.91	-
9	Weighted average Rate of Interest on Loans	10.37%	10.71%	10.97%	13.11%	12.07%	-

Petitioner

PART-I FORM- 13A

Calculation of Interest on Normative Loan

Name of the Petitioner Rosa Power Supply Company Limited

Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Cr

Sl. No.	Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
	Gross Normative loan – Opening	4,871.96	4,871.96	4,871.96	4,895.76	4,895.76	4,895.76
	Cumulative repayment of Normative loan upto previous year	4,221.12	4,585.21	4,685.99	4,789.31	4,892.63	4,895.76
	Net Normative loan – Opening	650.84	286.75	185.97	106.45	3.13	-
	Add: Increase due to addition during the year / period			23.80			
	Less: Decrease due to de-capitalisation during the year / period						
	Less: Decrease due to reversal during the year / period						
	Add: Increase due to discharges during the year / period						
	Less: Normative repayment	364.09	100.77	103.32	103.32	3.13	-
	Net Normative loan - Closing	286.75	185.97	106.45	3.13	-	-
	Average Normative loan	468.79	236.36	146.21	54.79	1.56	-
	Weighted average rate of interest	12.07%	12.07%	12.07%	12.07%	12.07%	12.07%
	Interest on Loan	56.57	28.52	17.64	6.61	0.19	-

Petitioner

PART-I FORM- 13B

Calculation of Interest on Working Capital

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Cr

S. No.	Particulars	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8
1	Cost of Coal[1]	321.17	362.5	362.5	362.5	362.5	362.5
2	Cost of Main Secondary Fuel Oil[1]	3.65	6.00	6.00	6.00	6.02	6.00
3	Fuel Cost						
4	Liquid Fuel Stock						
5	O&M Expenses	32.04	34.70	37.36	39.27	41.29	43.41
6	Maintenance Spares	76.89	83.29	89.66	94.25	99.09	104.19
7	Receivables	433.98	474.14	478.06	479.44	481.43	485.05
8	Total Working Capital	867.72	960.60	973.55	981.43	990.29	1,001.12
9	Rate of Interest	12.00%	12.15%	12.50%	12.50%	12.50%	12.50%
10	Interest on Working Capital	104.13	116.71	121.69	122.68	123.79	125.14

Note: 1. For Coal based based generating stations

Petitioner

PART-I FORM- 13C

Other Income as on COD

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Lakhs

S. No.	Parameters	Existing 2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
1	Interest on Loans and advance	**Other income as on COD was not applicable in current control period**					
2	Interest received on deposits						
3	Income from Investment						
4	Income from sale of scrap						
5	Rebate for timely payment						
6	Surcharge on late payment from beneficiaries						
7	Rent from residential building						
8	Misc. receipts (Please Specify Details)						
9	**Total**	-	-	-	-		

Petitioner

PART-I FORM- 13D

Incidental Expenditure during Construction up to Scheduled COD and up to Actual/anticipated COD

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Lakhs

S. No.	Parameters	As on Scheduled COD	As on actual COD/ pated D
A	Head of Expenses:		
1	Employees' Benefits Expenses		
2	Finance Costs		
3	Water Charges		
4	Communication Expenses		
5	Power Charges		
6	Other Office and Administra		
7	Others (Please Spec		
8	Other Pre-O		
	...		
B			
	Contractors		
	posits		

RPSCL commissioned in Apr 2012 and hence does not fall under New Projects category as per Clause 2 (xliv) of UPERC Tariff Regulations, 2024

Petitioner

PART-I FORM- 13E

Expenditure under different packages up to Scheduled COD and up to Actual/anticipated COD

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Lakh

Sl. No.	Parameters	As on Scheduled COD	As on actual/ anticipated COD
1	Package 1	**Project cost has been finalised hence this format is not applicable**	
2	Package 2		
3	Package 3		
4			
5			
6			

Petitioner

PART-I FORM- 14

Draw Down Schedule for Calculation of IDC & Financing Charges

Name of the Petitioner: Rosa Power Supply Company Limited
Name of the Generating Station: Rosa Thermal Power Project

Sl. No.	Draw Down Particulars	Quarter 1			Quarter 2			Quarter n (COD)		
		Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)	Quantum in Foreign currency	Exchange Rate on draw down date	Amount in Indian Rupee (Rs Lakh)
1	Loans									
1.1	Foreign Loans									
1.1.1	Foreign Loan[1]									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.2	Foreign Loan[2]									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.3	Foreign Loan[3]									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.1.4	--									
	--									
	--									
1.1	Total Foreign Loans									
	Draw down Amount									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
1.2	Indian Loans									
1.2.1	Indian Loan[1]									
	Draw down Amount									
	IDC									
	Financing charges									
1.2.2	Indian Loan[2]									
	Draw down Amount									
	IDC									
	Financing charges									
1.2.3	Indian Loan[3]									
	Draw down Amount									
	IDC									
	Financing charges									
1.2.4	--									
	--									
	--									
1.2	Total Indian Loans									
	Draw down Amount									
	IDC									
	Financing charges									
1	Total of Loans drawn									
	IDC									
	Financing charges									
	Foreign Exchange Rate Variation									
	Hedging Cost									
2	Equity									
2.1	Foreign equity drawn									
2.2	Indian equity drawn									
	Total equity deployed									

Not applicable as the additional capitalisation is being undertaken through internal accruals and reserves and surplus

Note:
1. Drawal of debt and equity shall be on pari passu basis quarter wise to meet the commissioning schedule. Drawal of higher equity in the beginning is permissible
2. Applicable interest rates including reset dates used for above computation may be furnished separately
3. In case of multi-unit project details of capitalization ratio used to be furnished.

Petitioner

PART-I FORM- 14A

Actual cash expenditure

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Amount in Rs. Crores

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Expenditure towards Gross Block	0.00	Shall be submitted at the time of True-up, once audited accounts are finalized			
Add: Expenditure towards CWIP	5.96				
Add: Capital Advances, if any	0.00				
Less: Un-discharged liabilities (included above)	1.07				
Add/Less: Others	0.00				
Payment to contractors / suppliers towards capital assets	5.60				
Cumulative payments	5.60				

Note: If there is variation between payment and fund deployment justification need to be furnished

Petitioner

Details/Information to be submitted in respect of Fuel for Computation of Energy Charges1

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

S.No	Month	Unit	For preceding 3rd Month (from COD or from 1.4.2024 as the case may be) - Jan 2024		For preceding 2nd Month (from COD or from 1.4.2024 as the case may be) - Feb 2024		For preceding 1st Month (from COD or from 1.4.2024 as the case may be) - Mar 2024	
			Domestic	Imported	Domestic	Imported	Domestic	Imported
1	Quantity of Coal supplied by Coal Company	(MMT)	462,642	-	450,616	-	545,126	-
2	Adjustment (+/-) in quantity supplied made by Coal Company	(MMT)						
3	Coal supplied by Coal Company (1+2)	(MMT)	462,642	-	450,616	-	545,126	-
4	Normative Transit & Handling Losses (For coal based Projects)	(MMT)	3,701	-	3,605	-	4,361	-
5	Net coal Supplied (3-4)	(MMT)	458,940	-	447,011	-	540,765	-
6	Amount charged by the Coal Company	(Rs.)	1,140,214,150	-	1,129,736,176	-	1,357,432,834	-
7	Adjustment (+/-) in amount charged made by Coal Company	(Rs.)	3,210,154		(27,501,939)		7,828,231	
8	Total amount Charged (6+7)	(Rs.)	1,143,424,304	-	1,102,234,237	-	1,365,261,065	-
9	Transportation charges by rail/ship/road transport	(Rs.)	840,525,910	-	839,253,329	-	993,702,486	-
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)						
11	Demurrage Charges, if any	(Rs.)	-	-	-	-	-	-
12	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)	-	-	-	-	-	-
13	Total Transportation Charges (9+/-10- 11+12)	(Rs.)	840,525,910	-	839,253,329	-	993,702,486	-
14	Total amount Charged for coal supplied including Transportation (8+13)	(Rs.)	1,983,950,214	-	1,941,487,566	-	2,358,963,551	-
15	Landed cost of coal	Rs./MT	4,322.89		4,343.27		4,362.27	
16	Blending Ratio (Domestic/Imported)		100	-	100	-	100	-
17	Weighted average cost of coal for preceding three months	Rs./MT		4,322.89		4,343.27		4,362.27
18	GCV of Domestic Coal as received at Station	(kCal/ Kg)	3,606		3,539		3,532	
19	GCV of Imported Coal as per bill of Coal Company	(kCal/ Kg)		-		-		-
20	Weighted average GCV of coal as Billed	(kCal/ Kg)		3,606		3,539		3,532
21	GCV of Domestic Coal as received at Station	(kCal/ Kg)		3,606		3,539		3,532
22	GCV of Imported Coal as received at Station	(kCal/ Kg)		-		-		-
23	Weighted average GCV of coal as Received	(kCal/ Kg)		3,606		3,539		3,532

24	Weighted average GCV of coal as Received- For Jan-Mar'24	(kCal/ Kg)	3,558
25	Weighted average Landed cost of coal- For Jan-Mar'24	Rs./MT	4,344

Petitioner

Details/Information to be submitted in respect of Capital Spares

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Sl. No.	Details of Capital Spares and Expenses		Claimed as a part of additional Capitalisation	Funded through compensatory allowance	Funded through Special allowance (If Applicable	Claimed as a part of stores and spares
	Name of spare	Amount				
1	As the project cost has been finalised this format is not applicable					
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Petitioner

Liability Flow Statement

Name of the Petitioner Rosa Power Supply Company Limited
Name of the Generating Station Rosa Thermal Power Project

Party	Asset / Work	Year of actual capitalisation	Original Liability	Liability as on 31.03.2024	Discharges (Yearwise)	Reversal (Yearwise)
	Shall be submitted at the time of True-up, once audited accounts are finalized					

Petitioner