

**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

Petition No. \_\_\_ /TT/ \_\_\_

**IN THE MATTER OF: -**

Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.  
Corporate Centre: 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

--- RESPONDENT(S)

Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan, 14, Ashok Marg  
Lucknow - 226 001  
Represented by Its Chairman  
**And others**

**FILED BY**  
**POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**DATED: 03.09.2024**

**REPRESENTED BY**

**(V.C. Sekhar)**  
**Sr. General Manager (Regulatory Cell)**



**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**PETITION NO.:** .....

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

**--- PETITIONER**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

**----- RESPONDENT(S)**

Shakti Bhawan, 14, Ashok Marg

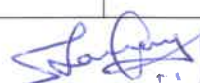
Lucknow - 226 001

Represented by Its Chairman

**And others**

**INDEX**

Sl. No.	Description	Enclosure No.	Page No.
	Cover Page	-	01
1	Index	-	02-03
2	Letter for registration	-	04-05
3	Memo of Parties	-	06-08
4	Memo of appearance	-	09-10
5	Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block	-	11-23
6	Supporting affidavit	-	24-25
7	Power of attorney	-	26





<b>ANNEXURES:</b>			
8	CERC order dated 25.01.2021 in petition no.255/TT/2019	Encl -1	27-75
9	True up tariff forms for 2019-24 block	Encl -2	76-96
10	Tariff Forms for 2024-29 block	Encl -3	97-117
11	Checklist	Encl -4	118-121

**FILED BY  
POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**REPRESENTED BY**

**DATED: 03.09.2024**

**(V.C. Sekhar)**  
**Sr. General Manager (Regulatory Cell)**



**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

PETITION NO.: .....

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

--- PETITIONER

Uttar Pradesh Power Corporation Ltd.

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

Represented by Its Chairman

**And others**

----- RESPONDENT(S)

To

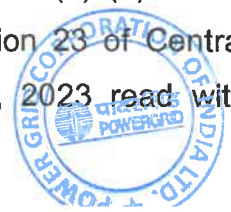
The Secretary

Central Electricity Regulatory Commission

New Delhi 110001

Sir,

The present tariff Petition is filed under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with



Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 and same may please to be registered and taken on record by the Hon'ble Commission.

**GURGAON**

**FILED BY**

**DATED: 03.09.2024**

**POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**

**Sr. General Manager (Regulatory Cell)**



**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

**PETITION NO.: .....**

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

**---PETITIONER**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre: 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

**---- RESPONDENT(S)**

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

Represented by Its Chairman

**And others**

**MEMO OF PARTIES**

**Power Grid Corporation of India Ltd.**

**VERSUS**

**--- PETITIONER**

**Northern Region**

**--- RESPONDENT**

1. UTTAR PRADESH POWER CORPORATION LTD.  
SHAKTI BHAWAN, 14, ASHOK MARG  
LUCKNOW - 226 001  
REPRESENTED BY ITS CHAIRMAN

2. AJMER VIDYUT VITRAN NIGAM LTD  
CORPORATE OFFICE, VIDYUT BHAWAN,  
PANCHSHEEL NAGAR, MAKARWALI ROAD  
AJMER-305004 (RAJASTHAN)  
REPRESENTED BY ITS MANAGING DIRECTOR



*(Handwritten signature)*

3. JAIPUR VIDYUT VITRAN NIGAM LTD  
132 KV, GSS RVPNL SUB- STATION BUILDING,  
CALIGIRI ROAD, MALVIYA NAGAR, JAIPUR-302017  
(RAJASTHAN)  
REPRESENTED BY ITS MANAGING DIRECTOR
4. JODHPUR VIDYUT VITRAN NIGAM LTD  
NEW POWER HOUSE, INDUSTRIAL AREA ,  
JODHPUR – 342 003(RAJASTHAN)  
REPRESENTED BY ITS MANAGING DIRECTOR
5. HIMACHAL PRADESH STATE ELECTRICITY BOARD LTD  
VIDYUT BHAWAN  
KUMAR HOUSE COMPLEX BUILDING II  
SHIMLA-171 004  
REPRESENTED BY ITS CHAIRMAN.
6. PUNJAB STATE POWER CORPORATION LIMITED  
THE MALL, PSEB HEAD OFFICE, PATIALA - 147 001  
REPRESENTED BY ITS CHAIRMAN AND MANAGING  
DIRECTOR
7. HARYANA POWER PURCHASE CENTRE  
SHAKTI BHAWAN, SECTOR-6  
PANCHKULA (HARYANA) 134 109  
REPRESENTED BY ITS S.E. / C & R-1
8. JAMMU KASHMIR POWER CORPORATION LIMITED  
220/66/33 KV GLADNI SS SLDC BULIDING  
NARWAL, JAMMU  
REPRESENTED BY ITS CHAIRMAN
9. BSES YAMUNA POWER Ltd,  
B-BLOCK, SHAKTI KIRAN, BLDG.  
(NEAR KARKADOOMA COURT),  
KARKADOOMA 2ND FLOOR,  
NEW DELHI-110092  
REPRESENTED BY ITS CEO
10. BSES RAJDHANI POWER Ltd,  
BSES BHAWAN, NEHRU PLACE,  
NEW DELHI  
REPRESENTED BY ITS CEO



11. TATA POWER DELHI DISTRIBUTION LTD.  
33 KV SUBSTATION, BUILDING  
HUDSON LANE, KINGSWAY CAMP  
NORTH DELHI - 110009  
REPRESENTED BY ITS CEO
12. CHANDIGARH ELECTRICITY DEPTT.  
CHANDIGARH ADMINISTRATION  
SECTOR -9, CHANDIGARH.  
REPRESENTED BY ITS CHIEF ENGINEER
13. UTTARAKHAND POWER CORPORATION LTD.  
URJA BHAWAN  
KANWALI ROAD  
DEHRADUN.  
REPRESENTED BY ITS MANAGING DIRECTOR
14. NORTH CENTRAL RAILWAY  
ALLAHABAD.  
REPRESENTED BY CHIEF ELECTRICAL  
DISTRIBUTIONENGINEER
15. NEW DELHI MUNICIPAL COUNCIL  
PALIKA KENDRA, SANSAD MARG,  
NEW DELHI-110002  
REPRESENTED BY CHAIRMAN

**GURGAON**

**DATED:03.09.2024**

**PETITIONER**  
**POWER GRID CORPORATION OF INDIA LTD.**  
**REPRESENTED BY**

  
**(V.C. Sekhar)**  
**Sr. General Manager (Regulatory Cell)**





**BEFORE**  
**THE CENTRAL ELECTRICITY REGULATORY COMMISSION**  
**NEW DELHI**

Petition No. ----/TT/----

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

--- PETITIONER

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre : 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

Represented by Its Chairman

And others

--- RESPONDENT(S)

**MEMO OF APPEARANCE**

**POWER GRID CORPORATION OF INDIA LTD.**

**-- PETITIONER**

1. Shri Dilip Nagesh Rozekar, ED (Commercial & RC), POWERGRID
2. Shri Mohd. Mohsin, Chief GM (Comml- Petition), POWERGRID
3. **V.C. Sekhar, Sr. GM (Commercial-RC), POWERGRID**
4. Shri Zafrul Hasan, GM (Comml- Petition), POWERGRID





I, V.C. Sekhar, the Petitioner above named do hereby nominate to act, plead and appear on my behalf in the aforesaid matter.

IN WITNESS WHEREOF I have set and subscribed my hands to this writing on this 03<sup>rd</sup> day of September' 2024.

**PETITIONER**  
**POWER GRID CORPORATION OF INDIA LTD.**

**GURGAON**

**DATED:03.09.2024**

  
**(V.C. Sekhar)**  
**Sr. General Manager (Regulatory Cell)**  


**BEFORE  
THE CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO.: .....**

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd**

**--- PETITIONER**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre : 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

**----- RESPONDENT(S)**

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

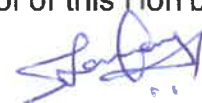
Represented by Its Chairman

**And others**

**A. Executive Summary of the Petition:**

**(i) Brief Background of the Petitioner**

1. The Petitioner herein, Power Grid Corporation of India Ltd. (Hereinafter referred to as "**POWERGRID/Petitioner**") is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is deemed transmission licensee in terms of Section 14 of the Electricity Act, 2003. POWERGRID by virtue of a transmission licensee is required to inter-alia build, own, operate and maintain an efficient, coordinated and economical inter-state transmission system ("**ISTS**"). POWERGRID operates and functions within the regulatory control of this Hon'ble Central Electricity



Regulatory Commission (hereinafter referred to as “**Hon’ble Commission**”). Tariff for the transmission system established by POWERGRID is required to be determined by this Hon’ble Commission in accordance with the Tariff Regulations as notified by this Hon’ble Commission in exercise of its powers under Section 178 of the Electricity Act, 2003.

**(ii) Brief background of the Respondent(s):**

POWERGRID has impleaded distribution licensees and Government departments of the respective states which are engaged in distribution of electricity in Northern Region of India. The respondents are also ‘Designated Inter State Transmission Customer’ (hereinafter referred to as ‘DICs’) from the Northern region in terms of the 2020 Sharing Regulations.

**(iii) Background of Transmission Assets:**

2. POWERGRID has filed the present petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for below asset in Northern Region:

Asset No	Asset Name	DOCO
Asset-1	Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection	01.07.2003

**(iv) Summary of Claims:**

3. A. POWERGRID is seeking truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission asset on capital cost comprising of expenditure incurred/Admitted upto 31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 in accordance with provisions of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (“**Tariff Regulations, 2019**”) and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 (“**Tariff Regulations, 2024**”).



4. The details of FR/RCE apportioned approved cost vis-a-vis claimed capital cost as on 31.03.2019 and additional capital expenditure during 2019-24 and 2024-29 tariff block are as under:

**Rs in lakhs**

Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to 31.03.2019	Expenditure during 2019-24 tariff block	Actual Cost as on 31.03.2024
Asset-1	4178.00	3259.51	No add cap	3259.51

**Rs in lakhs**

Asset No.	Apportioned Approved Cost as per FR	Expenditure Up to 31.03.2024	Expenditure during 2024-29 tariff block	Actual Cost as on 31.03.2029
Asset-1	4178.00	3259.51	No add cap	3259.51

5. Details of tariff claimed are as under:

True up annual transmission tariff for 2019-24 tariff block:

**Rs in Lakhs**

Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC approved	352.72	353.97	356.04	358.30	360.75
	Revised AFC based on truing up	352.72	353.97	355.39	357.67	361.38

Tariff claimed for 2024-29 tariff block:

**Rs in Lakhs**

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	322.06	326.10	330.60	335.50	342.08

6. It is prayed to hon'ble commission to reimburse expenditure of petition filing fee, license fee, newspaper publication expenses and RLDC fee & charges etc.





**B. Detailed Petition:**

**MOST RESPECTFULLY SHOWETH:**

**Issue wise submission(s):**

7. The Petitioner herein, Power Grid Corporation of India Ltd/ POWERGRID. is a Government Company within the meaning of the Companies Act, 1956. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act 2003.
8. POWERGRID being transmission licensee is required to inter-alia build, own, operate and maintain an efficient, coordinated and economical inter-state transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Commission in accordance with the provisions of Tariff Regulations, 2019 and 2024.
9. That the subject project/petition covers approval of transmission tariff for following Asset:

Asset No	Asset Name	DOCO	Remarks
Asset-1	Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection	01.07.2003	Earlier covered under petition no. 255/TT/2019 now covered under instant petition

**10. Cost details:**

The capital cost of Rs. 3259.51 Lakhs for subject Asset has been admitted by Hon'ble Commission vide order dated 25.01.2021 in petition no. 255/TT/2019. Copy of order is enclosed as **Encl-1**. In the current petition, no additional capital expenditure was incurred during the 2019-24 tariff block, and no additional capital expenditures are proposed during the 2024-29 tariff block.

**11. Transmission tariff:**

The truing up exercise for the period 2019-2024 is to be done at the time of filing tariff petition for next block, i.e. 2024-29 period as per Regulation 13 of Tariff Regulation, 2019.



Regulation 13 of Tariff Regulation, 2019:

**Quote**

“The Commission shall carry out truing up exercise for the period 2019-24 along with the tariff petition filed for the next tariff period, for the following:

-----”

**Unquote**

That the Petitioner is required to adjust the yearly impact of MAT as per Regulation 31 (3) of the Tariff Regulations, 2019 dated 07.03.2019 in the truing up petition for 2019-24 tariff block.

Regulation 31 (3) of the tariff Regulation, 2019:

**Quote**

The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.

**Unquote**

It is submitted that the Income Tax assessment of the Petitioner has been completed and Assessment Orders have been issued by the Income Tax Department for FY 2019-20 and 2020-21; and that the Income Tax returns have been filed with the Income Tax Department for FY 2021-22 & 2022-23. Further, it is submitted that the Income Tax Return for 2023-24 will be filed in due course.

As such, basis of year wise effective tax rate and Grossed up ROE to be trued up accordingly for the block period 2019-24 is summarized as under:-



Financial Year	Basis considered	Total Tax & Interest paid (Rs)	Assessed MAT Income under Sec 115 JB (Rs)	Effective Tax percentage	Grossed up ROE (Base rate/(1-t))
2019-20	Assessment Order	24,52,62,76,991	1,40,37,47,53,855	17.472%	18.782%
2020-21	Assessment Order	26,08,93,59,008	1,49,32,09,65,036	17.472%	18.782%
2021-22	Actual Tax paid	31,81,46,40,406	1,82,08,92,88,030	17.472%	18.782%
2022-23	Actual Tax paid	30,42,88,20,993	1,74,15,76,29,306	17.472%	18.782%
2023-24	Applicable Rate #		#	17.472%	18.782%

# Based on the applicable rate of MAT @ 15 %, Surcharge @ 12% & Cess @ 4%

The above Effective Tax percentage shall be applied by the petitioner in arriving out the Grossed up ROE rate in all cases of truing up petitions to be filed for the period 2019-24. It is submitted that effective rate of tax considered for FY 2019-20 and 2020-21 are based on Assessment Order issued by Income-Tax authorities, for the purpose of grossing up of ROE rate and that the effective rate of tax considered for F/Y 2021-22 and F/Y 2022-23 are based on the Income-tax returns filed, for the purpose of grossing up of ROE rate of respective years. Further, for F/Y 2023-24, pending filing of ITR, effective tax rate is calculated based the applicable MAT rate (i.e. MAT 15% + Surcharge 12.00% + Cess 4%), for the purpose of grossing up of ROE rate.

The Hon'ble Commission is requested to allow the petitioner to claim the differential tariff on account of the trued up ROE based on effective tax rate calculated on completion of Income-tax assessment/re-assessment for the F/Y 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided in the regulation.

In line with the above Regulation, the tariff for each year of the tariff period 2019-24 block has been trued up considering the above Effective Tax percentage to arrive at Grossed up ROE rate.





While filing Tariff petition for 2019-24 period, the petitioner had prayed for allowing the floating rate of Interest on loan adjustments. As per Hon'ble Commission order dated 18.04.2022 in petition no. 26/TT/2021, it has been stated that the weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019 and accordingly, the floating rate of interest on actual, applicable from time to time, if any, during 2019-24 tariff shall be considered at the time of true up or next revision of tariff.

Accordingly in the present petition, truing up of transmission tariff for the tariff block 2019-24 is being carried out based on of actual additional capitalization during 2019-24 tariff block, change in MAT rate as well as actual floating rate of interest during 2019-24.

12. The trued up annual transmission tariff for the tariff period 2019-24 is summarized as below:

Rs in Lakh

Project		2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC approved	352.72	353.97	356.04	358.30	360.75
	Revised AFC based on truing up	352.72	353.97	355.39	357.67	361.38

Tariff filing forms along with the other relevant information and supporting documents are attached hereto as **Encl-2**.

That in the subject petition, details are provided in various Tariff Forms with respect to Capital Cost as per books / Gross Block amount as per Books. It is submitted that the petitioner has opted for deemed cost exemption as per Para D7 AA of Ind AS 101 'First-time Adoption of Indian Accounting Standards'. Accordingly Carrying value i.e. Gross Block less Accumulated Depreciation is considered as deemed cost as on the date of transition i.e. 1st April 2015. As such, in case of assets commissioned before 01.04.2015, the accumulated depreciation as on 1st April 2015 is added back to the deemed Capital Cost as per books / Gross Block amount as per Books for arriving at the figures to be provided in various Tariff Forms.

13. The tariff worked out for 2024-29 tariff block is summarized below:



Rs in Lakh

Project		2024-25	2025-26	2026-27	2027-28	2028-29
Asset-1	AFC	322.06	326.10	330.60	335.50	342.08

Tariff filing forms along with the other relevant information and supporting documents are attached hereto as **Encl-3**.

14. The asset has completed 12 Yrs of life in the year 2015-16, and thus the remaining depreciable amount at end of 12 yrs have been spread over the balance useful life of the asset as per clause 33 (5) of the CERC Tariff Regulations, 2024. The details have been computed and are provided in Form- 10 A.
15. That, it is submitted that the petitioner is currently liable to pay income tax at MAT rate specified in Income-tax Act,1961. Therefore, ROE has been calculated @ 18.782% after grossing up the ROE with MAT rate of 17.472% ( Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given at regulation 31 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 for 2024-29 period. That as per clause 31 (3) of the above regulation, the grossed up rate of ROE at the end of every financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2024-29 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during the tariff period 2024-29 on year to year basis on receipt of Income Tax assessment order.
16. Under CGST Act, 2017 implemented w.e.f. 01.07.2017, the Govt. of India has exempted the charges of transmission of electricity vide notification no. 12/2017 – Central Tax (Rate) dated 28.06.2017 at serial no. 25 under the heading 9969 “Transmission or distribution of electricity by an electric transmission or distribution



utility” by giving applicable GST rate as NIL. Hence, the Transmission Charges as indicated at para 12 and para-13 above is exclusive of GST. Further, if GST is levied at any rate and at any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged & billed separately by the petitioner. Further additional taxes, if any, are to be paid by the petitioner on account of demand from Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

17. In the tariff calculations for 2019-24 period, Interest on Loan has been calculated on the basis of actual rate of interest of various loans deployed for each year. In the tariff calculations for 2024-29 period, Interest on Loan has been calculated on the basis of interest rates prevailing as on 01.04.2024 for respective loans. The change in Interest rate due to floating rate of interest applicable, if any, for the project needs to be claimed / adjusted over the tariff block of 05 years directly from / with the beneficiaries.

For the purpose of the supporting documents for rate of interest, a compendium of floating rate of interest of various loans during the tariff period 2019-24 will be submitted shortly with a Truing-up petition and the details of the same will be submitted through an affidavit once submitted. These documents/details will also be made available on our website [www.powergrid.in](http://www.powergrid.in).

18. The transmission charges at para-12 & 13 above is inclusive of O&M expenses derived for the subject asset based on the norms for O&M expenditure for Transmission System as specified under regulation 36 (3) (a) of the Tariff Regulations for block 2024-29.
19. That as per Regulation 36(3)(d) of CERC Tariff Regulations, 2024, the Security Expenses, Insurance and Capital Spares more than Rs. 10 Lakh for transmission system shall be allowed separately after prudence check.

**Security Expenses:**

In this regard, it is submitted that a separate petition shall be filed for truing up of security expenses from 01.04.2019 to 31.03.2024 under the Regulation 35 (3) (C) of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 and recovery of security expenses from 01.04.2024 to 31.03.2029



under the Regulation 36 (3) (d) of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024.

**Insurance:**

In this regard, it is submitted that a separate petition shall be filed before Hon'ble Commission for claiming the overall Insurance Expenses and consequential Interest on Working Capital (IOWC) on the same considering actual Insurance Expense incurred by the Petitioner for the F/Y 2023-24 after escalating the same at 5.25% per annum for arriving at the Estimated Insurance Expense for the year 2024-25, 2025-26, 2026-27, 2027-28 and 2028-29.

**Capital Spare:**

With regard to Capital Spares, the Petitioner has filed a separate Petition bearing No 45/MP/2024 for claiming the capital spares under Tariff Regulation, 2019 for 2019-24 period. Further, as per Tariff Regulations, 2024, Capital spares consumed and consequential Interest on Working Capital (IOWC) on the same shall be claimed by the Petitioner for 2024-29 period as per actual through a separate petition.

Accordingly, these expenses are not claimed in the subject petition through the relevant Tariff Forms and shall be claimed separately.

20. That as per Regulation 99 of CERC Tariff Regulations, 2024, the fees and charges of Central Transmission Utility of India Limited ('CTUIL') shall be allowed separately by the Commission through a separate regulation. Further, it provides that until such regulation is issued by the Commission, the expenses of CTUIL shall be borne by POWERGRID which shall be recovered by POWERGRID as additional O&M expenses through a separate petition.

Accordingly, the expenses of CTUIL borne by POWERGRID shall be claimed through a separate petition.

21. The application filing fee, expenses incurred on publication of Notices in Newspapers and License fee may be allowed to be recovered separately from the respondents in terms of Regulation 94(1) and Regulation 94(4) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024. The fees and charges to be paid by the petitioner as ISTS licensee (deemed ISTS licensee) under



CERC (Fees and Charges of RLDC and other matters) Regulations, 2023 as amended from time to time shall also be recoverable from the DICs as provided under clause 94(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

22. The Transmission Charges and other related Charges indicated at para 12 & 13 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges or any other kind of imposition (s) and/ or other surcharges etc. whatsoever imposed / charged by any Government (Central/State) and / or any other local bodies/authorities/regulatory authorities in relation to transmission of electricity, environmental protection, and/or in respect of any of its installation associated with the Transmission System and the same shall be borne and additionally paid by the respondent(s) to the petitioner and the same shall be charged, billed separately by the petitioner on the respondents.

23. **Sharing of Transmission Charges**

Tariff for Transmission of Electricity (Annual Fixed Cost) for 2019-24 as per para 12 above shall be recovered on monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and shall be shared by the beneficiaries and long-term transmission customers in terms of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 and/or Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, as amended from time to time for the applicable periods.

Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 as per para 13 above shall be recovered on monthly basis in accordance with Regulation 78 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024 and shall be shared by the beneficiaries and long-term transmission customers in terms of Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, as amended from time to time.

24. In the circumstances mentioned above, it will be just and proper that the transmission tariff for the asset covered under this petition be allowed to be charged from the beneficiaries on the basis set out above. **The Petitioner submits that Encl.-1 to Encl.-3 may please be treated as integral part of this petition.**



## C. PRAYER

It is respectfully prayed that the Hon'ble Commission may be pleased to:

- a) Approve the trued-up Transmission Tariff for 2019-24 block and transmission tariff for 2024-29 block for the asset covered under this petition, as per para 12 and 13 above.
- b) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulations, 2019 and Tariff Regulations, 2024 as per para 12 and 13 above for respective block.

Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long-term customers / DIC as the case may be, as and when the same is materialized as per Regulation 67 of Tariff regulations, 2019 and Regulation 89 of Tariff regulations, 2024. The petitioner may be allowed to recover the deferred tax liability materialized directly without making any application before the Hon'ble Commission as provided in the regulations.

- c) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 94 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, and other expenditure ( if any) in relation to the filing of petition.
- d) Allow the petitioner to bill and recover RLDC fees & charges and Licensee fee, separately from the respondents in terms of Regulation 94 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.
- e) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2024-29 period, if any, from the respondents.



- f) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 19 above.
- g) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall insurance expenses and consequential IOWC on that insurance expenses as mentioned at para 19 above.
- h) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall capital spares at the end of tariff block as per actual as mentioned at Para 19 above.
- i) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 20 above.
- j) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries and
- k) Pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

**GURGAON**

**DATED: 03.09.2024**

**FILED BY  
POWER GRID CORPORATION OF INDIA LTD.**

**REPRESENTED BY**

  
**(V.C. Sekhar)**

**Sr. General Manager (Regulatory Cell)**



**BEFORE  
THE CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**PETITION NO.: .....**

**IN THE MATTER OF:** Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for **Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under the Regulation 15 (1) (a) and Regulation 23 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

**Power Grid Corporation of India Ltd.**

Registered office: B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi. 110 016.

Corporate Centre : 'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

--- **PETITIONER**

Uttar Pradesh Power Corporation Ltd.

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

Represented by Its Chairman

**And others**

----- **RESPONDENT(S)**

**AFFIDAVIT VERIFYING THE PETITION**

I, V.C. Sekhar, S/O Late Sh. V. Devaiah, working as Senior General Manager (Regulatory Cell) in the Power Grid Corporation of India Ltd., having its registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110 016, do hereby solemnly affirm and state as under: -

1. That the deponent is the Senior General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.





2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorized representative/nominated counsel under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
3. That the contents of Para 01 to 24 of the facts as mentioned in the Petition are true and correct based on my personal knowledge, belief and records maintained in the office and the contents of Para 01 to 24 of the Petition are believed to be true on the basis of the legal advice received.
4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute

  
(DEPONENT)  


#### VERIFICATION

Solemnly affirmed at Gurgaon on this **3<sup>rd</sup> day of September' 2024** that the contents of the above affidavit are true to my knowledge and belief and no part of it is false and nothing material has been concealed there from.

  
(DEPONENT)  




ATTESTED

  
MAHENDER S. PUNIA  
ADVOCATE & NOTARY  
Distt. Gurugram (Haryana) India

Ref: CC/Commercial/2024

Date: 28.08.2024


**LETTER OF AUTHORIZATION**

In reference to the POWER OF ATTORNEY dated 14.08.2024 and in supersession of letter of authorization dated 13.12.2022 I hereby authorize following executives to sign Petitions, Appeals, Vakalatnama, Affidavits, etc. and to represent POWERGRID before various forums/ courts / tribunals i.e Central Electricity Regulatory Commission, State Electricity Regulatory Commission, Appellate Tribunal for Electricity, High courts and Supreme Court etc. :

1. Sh. Mohd. Mohsin, Chief General Manager
2. Sh. V. C. Sekhar, Senior General Manager
3. Sh. Zafrul Hasan, General Manager

Further, following executives are authorised to represent cases before Central Electricity Regulatory Commission and Appellate Tribunal for Electricity

1. Sh. Angaru Naresh Kumar, Deputy General Manager
2. Smt. Suchitra Gautam, Deputy General Manager
3. Sh. Vishal Sagar, Deputy General Manager
4. Sh. G. Vijay, Deputy General Manager
5. Sh. Vivek Kumar Singh, Deputy General Manager
6. Sh. Amit Kumar Chachan, Deputy General Manager
7. Smt. Supriya Singh, Chief Manager (Law)
8. Sh. Arjun Malhotra, Manager (Law)
9. Smt. Tanushree Rao, Deputy Manager (Law)

  
28/08/2024

**Dilip Nagesh Rozekar**  
Executive Director (Commercial & RC)

**दिलीप रोजेकर / DILIPROZEKAR**

Executive Director (Commercial & Regulatory Cell)  
पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड  
Power Grid Corporation of India Ltd.  
(भारत सरकार का उद्यम) / (A Govt. of India Enterprise)  
Plot No.-2, Sector-29, Gurgaon- 122 001 (Haryana)



Encl-1

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 255/TT/2019**

**Coram:**

**Shri P. K. Pujari, Chairperson  
Shri I. S. Jha, Member  
Shri Arun Goyal, Member**

**Date of Order: 25.01.2021**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, revision of transmission tariff for the 2001-04, 2004-09 and 2009-14 tariff periods and truing-up of transmission tariff for the 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Asset: Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region.**

**And in the matter of:**

Power Grid Corporation of India Limited,  
"Saudamini", Plot No. 2,  
Sector 29, Gurgaon-122001  
(Haryana)

**Vs**

**....Petitioner**

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,  
Vidyut Bhawan, Vidyut Marg,  
Jaipur – 302005.
2. Ajmer Vidyut Vitran Nigam Ltd.,  
132 kV, GSS RVPNL, Sub-station Building,  
Caligiri Road, Malviya Nagar, Jaipur-302017
3. Jaipur Vidyut Vitran Nigam Ltd.,  
132 kV, GSS RVPNL, Sub-station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-302017.
4. Jodhpur Vidyut Vitran Nigam Ltd.,  
132 kV, GSS RVPNL, Sub-station Building,  
Caligiri Road, Malviya Nagar,  
Jaipur-302017.

**ATTESTED TRUE COPY**  
*How page - 29 to 75*  
Authorised Signatory  
Power Grid Corporation of India Ltd  
Plot No. 2, Sector-29, Gurgaon-122001 (HARYANA)



5. Himachal Pradesh State Electricity Board,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171004.
6. Punjab State Electricity Board,  
Thermal Shed Tia,  
Near 22 Phatak,  
Patiala-147001.
7. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula- 134109.
8. Power Development Department,  
Government of Jammu & Kashmir,  
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Ltd.  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow – 226001.
10. Delhi Transco Ltd.,  
Shakti Sadan, Kotla Road,  
New Delhi-110002.
11. BSES Yamuna Power Ltd.,  
BSES Bhawan, Nehru Place,  
New Delhi.
12. BSES Rajdhani Power Ltd,  
BSES Bhawan, Nehru Place,  
New Delhi-110019.
13. Tata Power Delhi Distribution Ltd.  
33 kV Sub-station Building,  
Hudson Lane,  
Kingsway Camp,  
North Delhi – 110009.
14. Chandigarh Administration,  
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Ltd.,  
Urja Bhawan,  
Kanwali Road, Dehradun.
16. North Central Railway,  
Allahabad.
17. New Delhi Municipal Council,



Palika Kendra, Sansad Marg,  
New Delhi-110002.

...Respondents

**For Petitioner** : Shri S. S. Raju, PGCIL  
Shri Ved Prakash Rastogi, PGCIL

**For Respondents** : None

### ORDER

The instant petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for revision of transmission tariff of the 2001-04, 2004-09 and 2009-14 tariff periods, truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of tariff from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") of "Agra (Power Grid)-Agra (UPPCL) 400 kV D/C Interconnection" in Northern Region (hereinafter referred to as "the transmission asset").

2. The Petitioner has made the following prayers in this petition:

- "1) Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and transmission tariff for 2009-14 block for the Asset covered under this petition, as per para 8 above.*
- 2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the Asset covered under this petition, as per para 9 and 10 above.*
- 3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff regulations 2014 and tariff regulation'19 as per para 9.0 & 10 above for respective block.*



- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure ( if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

### **Background**

3. The brief facts of the case are as under:

a) Investment Approval (IA) for the construction of transmission asset was accorded by the Board of Directors of the Petitioner vide Memorandum dated 4.4.2001 at an estimated cost of ₹4178 lakh, including Interest During Construction of ₹241 lakh, based on 1<sup>st</sup> quarter, 2000 price level.

b) The entire scope of the work as per Investment Approval is covered in the instant petition. The details are as under:

#### **A. Transmission Lines:**

- i. 400 kV D/C Agra (Powergrid)-Agra (UPPCL) transmission line - 29.52 km

#### **B. Sub-station Works:**

- i. Extension of Agra (Powergrid) Sub-station line bays: 2 Nos.



ii. Extension of Agra (UPPCL) Sub-station line bays: 2 Nos

c) The transmission tariff of the instant Asset from COD to 31.3.2004 was determined *vide* order dated 21.7.2005 in Petition No. 192/2004. The tariff for the 2004-09 tariff period was determined *vide* order dated 7.7.2006 in Petition No. 117/2005 and was revised *vide* order dated 22.1.2007 in Petition No. 117/2005 and order dated 16.6.2010 in Petition No. 77/2010. The transmission tariff for the 2009-14 tariff period was determined *vide* order dated 25.2.2011 in Petition No. 218/2010. The tariff for the 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was approved *vide* order dated 14.3.2016 in Petition No. 174/TT/2014.

d) The scheduled COD of the instant transmission was July 2002 and it was put into commercial operation on 1.7.2003 with time over-run of 11 months that was condoned *vide* order dated 21.7.2005 in Petition No.192/2004.

e) The details of the transmission tariff allowed for the 2014-19 tariff period and the trued-up transmission tariff claimed by the Petitioner in the instant petition is as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014</b>	653.13	643.54	502.49	508.56	514.92
<b>Claimed in instant petition</b>	654.84	645.79	505.42	511.40	518.01

f) The Petitioner has sought revision of transmission tariff approved for the 2001-04 and 2004-09 tariff periods, on account of change in Interest on Loan (IoL) and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the judgment of the Appellate Tribunal for Electricity (APTEL) dated 22.1.2007 and 13.6.2007 in Appeal No. 81/2005 and 139/2006 respectively. The Petitioner has also sought consequential revision of tariff allowed for the instant transmission asset for the 2009-14 tariff period and truing up of tariff of the 2014-19 tariff period and for determination of tariff for the 2019-24 tariff period.



g) APTEL, *vide* judgements dated 22.1.2007 in Appeal No.81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided on, mainly the following issues:-

- (a) Computation of interest on loan
- (b) Consequences of refinancing of loan
- (c) Depreciation as deemed repayment
- (d) Admissibility of depreciation up to 90% of the value of the Asset
- (e) Consideration of maintenance of spares for working capital
- (f) Depreciation of Asset.

h) The Commission and certain interested parties preferred Civil Appeals against the APTEL's judgments before the Hon'ble Supreme Court of India in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.

i) Based on the APTEL's judgments dated 22.1.2007 and 13.6.2007, the Petitioner herein sought re-determination of tariff of its transmission Asset for the 2001-04 and 2004-09 tariff periods *vide* Petition No. 121/2007. The Commission after taking into consideration the pendency of Appeals before the Hon'ble Supreme Court adjourned the said petition *sine die* and directed that the same be revived after the disposal of Civil Appeals by the Hon'ble Supreme Court.

j) The Hon'ble Supreme Court *vide* its judgment and final order dated 10.4.2018, dismissed the said Civil Appeals.

k) Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018, Petition No. 121/2007 was listed for hearing before the Commission on 8.1.2019. The Commission, *vide* order dated 18.1.2019 in Petition No. 121/2007, directed the Petitioner to submit its claim at the time of filing of truing up of the petitions for the 2014-19 tariff period in respect of the concerned transmission asset.





l) In view of the APTEL's judgments dated 22.1.2007 and 13.6.2007 and the judgement of Hon'ble Supreme Court dated 10.4.2018, the tariff is being revised. Although, period wise tariff is being re-worked based on the Tariff Regulations applicable for the respective tariff periods, suitable assumptions at certain places are being applied which are indicated.

4. The Respondents are the distribution licensees, transmission utilities and power departments, who are procuring transmission services from the Petitioner and are mainly beneficiaries of the Northern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. BSES Rajdhani Power Ltd. (BRPL) i.e. Respondent No. 12, has filed its reply *vide* affidavit dated 14.1.2020 and has raised issues like revision and reopening of tariff for 2001-04 and 2004-09 tariff periods, deferred tax liability for 2009-14 and 2014-19 tariff periods and effective tax rate. The Petitioner has filed its rejoinder to BRPL's reply *vide* affidavit dated 21.8.2020.

6. Uttar Pradesh Power Corporation Ltd. (UPPCL), i.e. Respondent No. 15, has filed its reply *vide* affidavit dated 21.11.2019 and raised issues like rate of interest for calculation of Interest on Loan for the 2004-09 and 2009-14 tariff periods, cumulative depreciation up to 31.3.2014 and tax rate for grossing-up of Return on Equity. The Petitioner has filed its rejoinder to UPPCL's reply *vide* affidavit dated 21.8.2020.

7. This order is issued considering the submissions made by the Petitioner in the petition, affidavits dated 30.7.2019, and 20.7.2020, reply filed by BRPL and UPPCL



vide affidavits dated 14.1.2020 and 21.11.2019 respectively, and the Petitioner's rejoinders filed vide affidavits dated 21.8.2020.

8. The hearing in this matter was held on 24.8.2020 through video conference and the order was reserved.

9. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the petition.

**Revision of transmission charges for the 2001-04, 2004-09 and 2009-14 Tariff Periods**

10. The Petitioner has sought revision of the computation of IoL, maintenance spares for working capital and depreciation allowed for the 2001-04 and 2004-09 tariff periods based on the judgements of APTEL dated 22.1.2007 in Appeal No.81/2005 and dated 13.6.2007 in Appeal No.139/2006. APTEL while dealing with the issue of computation of IoL, in its judgement dated 22.1.2007, observed that IoL for the period 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal Nos.94 and 96 of 2005. APTEL vide its judgement dated 14.11.2006 had set aside the Commission's methodology of computation of loan on the basis of actual repayment or normative repayment whichever is higher and held that the Central Commission is required to adopt normative debt repayment methodology for working out the IoL liability for the period 1.4.1998 to 31.3.2001. In view of the above, the interest allowed for the 2001-04 and 2004-09 periods is being revised on the basis of the normative debt repayment methodology. The relevant portions of the judgement dated 14.11.2006 is as follows:-

*"12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged*



the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.

13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt-equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.

14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon."

-----  
18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004

19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001."

11. APTEL vide its judgement dated 13.6.2007 in Appeal No.139 of 2006 and others held that the additional capital expenditure after the date of commercial operation should also be considered for computation of maintenance spares as under:-

#### **"Analysis and Decision**

We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

"Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

(i) Deferred liabilities

(ii) Works deferred for execution

(iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.



- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and  
(v) On account of change in law.

*Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.*

*Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station.”*

*It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure. Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations.”*

12. In view of the above, the maintenance spares to be considered for computation of working capital for the 2004-09 period are also required to be revised taking into consideration the additional capital expenditure after the date of commercial operation.

13. With regard to depreciation, APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:-

***“Analysis and Decision***

*In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.*

*It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-*



*"The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital Asset, less salvage (if any), over the estimated useful life of the unit (which may be a group of Asset) in a systematic and rational manner. It is a process of allocation, not of valuation"*

*It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations."*

14. In view of the above directions of APTEL, the outstanding loan allowed for the instant transmission asset for the 2001-04 and 2004-09 tariff periods is being revised in the instant order.

15. The revision of tariff allowed for the 2001-04 and 2004-09 tariff periods necessitates the revision of tariff allowed for the 2009-14 period, which is also being done in the instant order. The implementation of the directions of APTEL in case of the Petitioner was kept pending the outcome of Civil Appeals filed before the Hon'ble Supreme Court. Hence, taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the period 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will neither claim nor pay any carrying cost from the beneficiaries for the difference, if any, in the tariff allowed earlier and that allowed *vide* the instant order. Further, the said difference in tariff shall be recovered/ paid over a period of six months from the date of issue of this order.

16. BRPL has submitted that the power to revise the tariff has to be exercised within a reasonable period of time and the same can be done only when the tariff is in force



and not afterwards. Further, BRPL has relied upon the principles of *res judicata* and *functus officio*.

17. In response, the Petitioner has submitted that the contention of BRPL is no more *res integra* and the same has been dealt by the Commission *vide* order dated 31.7.2020 in Petition No. 288/TT/2019.

18. We have considered the submissions of the Petitioner and BRPL. The Commission in interim order dated 6.11.2019 in Petition Nos. 288/TT/2019, 300/TT/2019, 301/TT/2019 and 305/TT/2019 has considered the submissions of BRPL and has rejected them. As the issues raised by BRPL have already been decided, we are of the view that there is no requirement to go into those issues. The relevant portion of the order dated 6.11.2019 is extracted hereunder:

*"15. We have examined the above contentions of the parties and have also gone through the citations relied on by them. Learned counsel for BRPL and BSPHCL has contended that there are two parts in a judgment and in procedural part, the adjudicating authority who delivered the judgment can exercise jurisdiction while in substantive part it has no jurisdiction. Learned senior counsel for the Petitioner forcefully contended that doctrine of functus officio does not come in the way of exercise of regulatory power of the Commission and it certainly creates a legal bar where the dispute between the parties is of adjudicatory nature.*

*16. On examination of above contentions of the parties, we agree that the principle of functus officio creates a legal bar on an authority to re-hear a case after it has delivered order/judgment in a particular case and it ceases to have jurisdiction over it. However, the above complexities of law, to our understanding are applied by Courts to deal with litigation purely civil in nature and that is not the case here. One of the main functions of the Central Commission is determination of tariff in terms of regulations framed and notified by it. Further, the tariff determination is a continuous process and is not akin to the nature of disputes purely of civil nature with which the Civil Courts deal with day in and day out. We do not agree with the contention of BRPL and BSPHCL that the Petitioner is attempting to reopen the order in petitions where tariff was granted for 2001-04 and 2004-09 tariff periods as the Commission has become functus officio. As we observed that one of the prime duties of the Commission is to determine tariff in terms of the notified regulations and it being a continuous process, in deserving cases, the same is required to be revised as provided for in Regulation 92 of 1999 Regulations, which provides as follows:-*

*"92. The Commission on its own on being satisfied that there is need to review the tariff of any utility shall initiate the process of revision in accordance with the*



28



procedure as may be prescribed. The suo-motu review of the tariff shall be the same as set out in Chapter II of these Regulations.”

17. We further agree with the contention of the Petitioner that the power of the Commission to revise the tariff of any utility under Regulation 92 of 1999 Regulations is upheld by Hon'ble Supreme Court in the matter of U.P. Power Corporation Limited Vs. National Thermal Power Corporation Limited reported in (2009) 6 SCC 235. In the said judgment, Hon'ble Supreme Court in para 36 observed that in a case of the nature as their Lordship were then considering, even principles of res judicata will have no application. In view of above discussions, we observe that the principle of functus officio is not applicable in the facts and circumstances of these cases.”

### **2001-04 Tariff Period**

19. The Commission vide order dated 21.7.2005 in Petition No. 192/2004 had approved the following transmission charges for the instant transmission asset from COD to 31.3.2004:

Particular	(₹ in lakh)	
	2003-04 (from 1.7.2003 to 31.3.2004)	
Depreciation		71.09
Interest on Loan		188.98
Return on Equity		70.41
Advance against Depreciation		0.00
Interest on Working Capital		9.73
O&M Expenses		69.38
<b>Total</b>		<b>409.60</b>

20. The Petitioner has claimed the following revised transmission charges for the instant transmission asset from COD to 31.3.2004 in the instant petition:

Particular	(₹ in lakh)	
	2003-04 (from 1.7.2003 to 31.3.2004)	
Depreciation		71.09
Interest on Loan		188.98
Return on Equity		70.41
Advance against Depreciation		0.00
Interest on Working Capital		9.74
O&M Expenses		69.38
<b>Total</b>		<b>409.60</b>



21. We have considered the Petitioner's claim. The transmission charges allowed for the instant transmission asset for the year 2003-04 are revised based on the following:-

- a) Admitted capital cost of ₹3174.75 lakh as on COD;
- b) Gross Normative loan of ₹2588.00 lakh as on COD;
- c) Weighted average rate of interest on actual loan adopted from order dated 21.7.2005 in Petition No. 192/2004; and
- d) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 21.7.2005 in Petition No. 192/2004.

22. In view of the above, the revised transmission charges allowed for the instant transmission asset for the 2003-04 period are as follows:

Particular	(₹ in lakh)	
	2003-04 (from 1.7.2003 to 31.3.2004)	
Depreciation		71.09
Interest on Loan		188.98
Return on Equity		70.41
Advance against Depreciation		0.00
Interest on Working Capital		9.74
O&M Expenses		69.38
<b>Total</b>		<b>409.60</b>

#### **2004-09 Tariff Period**

23. The Commission *vide* order dated 7.7.2006 in Petition No. 117/2005 had determined the tariff for the 2004-09 tariff period. The tariff for the 2004-09 tariff period was revised *vide* order dated 22.1.2007 in Petition No. 117/2005 and order dated 16.6.2010 in Petition No. 77/2010. The transmission charges allowed for 2004-05 *vide* order dated 22.1.2007 in Petition No. 117/2005 and for 2005-06 to 2008-09 *vide* order dated 16.6.2010 in Petition No. 77/2010 the instant asset are as follows:





(₹ in lakh)

Particulars	Allowed vide order dated 22.1.2007 in P. No. 117/2005	Allowed vide order dated 16.6.2010 in P. No. 77/2010			
	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	95.62	96.79	97.66	97.66	97.66
Interest on Loan	247.54	234.99	215.81	194.58	173.35
Return on Equity	85.14	86.05	86.72	86.72	86.72
Advance against Depreciation	0.00	46.93	120.76	120.76	120.76
Interest on Working Capital	14.19	15.16	16.49	16.50	16.52
O&M Expenses	125.88	130.93	136.20	141.58	147.30
<b>Total</b>	<b>568.36</b>	<b>610.84</b>	<b>673.64</b>	<b>657.80</b>	<b>642.32</b>

24. The Petitioner has claimed the following revised transmission charges for the instant transmission asset from 1.1.2004 to 31.3.2009 in the instant petition:

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	95.62	96.79	97.66	97.66	97.66
Interest on Loan	248.69	237.19	217.81	196.38	174.96
Return on Equity	85.14	86.05	86.72	86.72	86.72
Advance against Depreciation	0.00	25.33	122.78	122.78	122.78
Interest on Working Capital	14.29	14.94	16.72	16.73	16.76
O&M Expenses	125.88	130.93	136.20	141.58	147.30
<b>Total</b>	<b>569.61</b>	<b>591.23</b>	<b>677.89</b>	<b>661.85</b>	<b>646.18</b>

25. UPPCL has requested the Commission to direct the Petitioner to furnish details of working out the rate of interest @9.72%. In response, the Petitioner has submitted that the actual loan details as given in orders of the 2004-09 tariff period have been considered for the calculation of Weighted Average Rate of Interest.

26. We have considered the Petitioner's claim and UPPCL's contention. The transmission charges allowed for the instant transmission asset for the 2004-19 tariff period are revised based on the following:-

- Admitted capital cost of ₹3174.75 lakh as on 1.4.2004;
- Additional capital expenditure of ₹19.67 lakh for the year 2003-04 as allowed in the order dated 21.7.2005 in Petition No. 192/2004;



- c) Additional capital expenditure of ₹16.98 lakh for the year 2004-05 as allowed in order dated 22.1.2007 in Petition No. 117/2005;
- d) Additional capital expenditure of ₹48.11 lakh for the year 2005-06 as allowed in order dated 16.6.2010 in Petition No. 77/2010;
- e) Debt-Equity ratio of 80:20 for additional capital expenditure allowed in 2004-05;
- f) Debt-Equity ratio of 70:30 for additional capital expenditure allowed in 2005-06;
- g) Weighted average rate of interest on actual loan adopted from order dated 22.1.2007 in Petition No. 117/2005 for the year 2004-05 and from order dated 16.6.2010 in Petition No. 77/2010 for the years 2005-06 to 2008-09; and
- h) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O & M Expenses adopted from order dated 22.1.2007 in Petition No. 117/2005 for the year 2004-05 and from order dated 16.6.2010 in Petition No. 77/2010 for the years 2005-06 to 2008-09.

27. In view of the above, the revised transmission charges allowed for the instant asset for the 2004-09 tariff period are as follows:

(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	95.62	96.79	97.66	97.66	97.66
Interest on Loan	248.71	237.21	217.83	196.40	174.97
Return on Equity	85.14	86.05	86.72	86.72	86.72
Advance against Depreciation	0.00	25.33	122.78	122.78	122.78
Interest on Working Capital	13.37	13.97	15.69	15.64	15.61
O&M Expenses	125.88	130.93	136.20	141.58	147.30
<b>Total</b>	<b>568.73</b>	<b>590.28</b>	<b>676.88</b>	<b>660.78</b>	<b>645.04</b>

#### 2009-14 Tariff Period

28. The Commission vide order dated 14.3.2016 in Petition No. 174/TT/2014 had allowed the following trued-up transmission charges for the 2009-14 tariff period for the instant asset:

(₹ in lakh)					
Particular	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	173.29	173.29	173.29	173.29	173.29
Interest on Loan	155.85	140.34	127.08	109.21	91.05
Return on Equity	115.67	119.91	120.03	120.03	121.47



Particular	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Working Capital	20.70	21.12	21.53	21.89	22.31
O&M Expenses	228.40	241.48	255.30	269.90	285.32
<b>Total</b>	<b>693.91</b>	<b>696.14</b>	<b>697.23</b>	<b>694.33</b>	<b>693.45</b>

29. The Petitioner has claimed the following revised transmission charges for the instant asset for the 2009-14 tariff period:

(₹ in lakh)					
Particular	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	173.29	173.29	173.29	173.29	173.29
Interest on Loan	157.37	141.88	128.67	110.80	92.63
Return on Equity	115.67	119.91	120.03	120.03	121.47
Interest on Working Capital	20.73	21.15	21.57	21.92	22.35
O&M Expenses	228.40	241.48	255.30	269.90	285.32
<b>Total</b>	<b>695.46</b>	<b>697.71</b>	<b>698.85</b>	<b>695.95</b>	<b>695.05</b>

30. UPPCL has submitted that the Petitioner may be directed to indicate reasons for claiming rate of interest of 12.25% for the 2009-10 to 2013-14 period.

31. In response, the Petitioner has submitted that the Weighted Average Rate of Interest allowed *vide* order dated 14.3.2016 in Petition No. 174/TT/2014 has been considered for computation of tariff for the 2009-14 tariff period.

32. BRPL has submitted that as per Regulation 39 of the 2009 Tariff Regulations, generating and transmission companies are entitled to bill deferred tax liability up to 31.3.2009, whenever it materialises. In response, the Petitioner has submitted that Regulation 49 of the 2014 Tariff Regulations provides that deferred tax liability before 1.4.2009 only, shall be directly recovered from the beneficiaries, as grossing up of RoE with effective tax rate is allowed w.e.f. 1.4.2009. Hence, the Petitioner is eligible for claiming the deferred tax liabilities for the period up to 31.3.2009 on materialization in the subsequent period i.e. 2009-10 onwards. The Petitioner has submitted that it is only claiming the reimbursement of income tax liability discharges as per the provisions of the Income Tax Act and it has further submitted that it has only claimed



the deferred tax liability materialised till 31.3.2014 and is yet to claim the deferred tax liability for the 2014-19 tariff period. The Petitioner has also submitted that deferred tax liability billed/ materialised is not considered while grossing up the RoE and all the required documents have been furnished.

33. We have considered the Petitioner's claim, the submissions of BRPL and the Petitioner. The tariff allowed for the instant transmission asset for the 2009-14 tariff period based on the following:-

- a) Admitted capital cost of ₹3259.51 lakh as on 1.4.2009;
- b) Weighted Average Rate of Interest on actual loan derived/adopted from order dated 14.3.2016 in Petition No. 174/TT/2014; and
- c) Weighted Average Rate of Depreciation as per order dated 14.3.2016 in Petition No. 174/TT/2014.

34. In view of the above, the revised transmission charges allowed for the instant transmission asset for the 2009-14 tariff period are as follows:

(₹ in lakh)

Particular	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	173.29	173.29	173.29	173.29	173.29
Interest on Loan	157.37	141.88	128.67	110.80	92.63
Return on Equity	115.67	119.91	120.03	120.03	121.47
Interest on Working Capital	20.73	21.15	21.57	21.92	22.35
O&M Expenses	228.40	241.48	255.30	269.90	285.32
<b>Total</b>	<b>695.46</b>	<b>697.71</b>	<b>698.86</b>	<b>695.94</b>	<b>695.06</b>

#### **TRUING-UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD**

35. The details of the trued-up transmission charges claimed by the Petitioner in respect of instant transmission asset are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	173.29	173.29	38.53	38.53	38.53
Interest on Loan	74.58	56.19	44.51	40.76	37.01
Return on Equity	121.57	122.12	122.06	122.06	122.39
Interest on Working Capital	23.00	23.07	20.20	20.62	21.07
O&M Expenses	262.40	271.12	280.12	289.43	299.01
<b>Total</b>	<b>654.84</b>	<b>645.79</b>	<b>505.42</b>	<b>511.40</b>	<b>518.01</b>



36. The details of trued up IWC claimed by the Petitioner in respect of the instant transmission asset are as follows:

Particular	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	21.87	22.59	23.34	24.12	24.92
Maintenance Spares	39.36	40.67	42.02	43.41	44.85
Receivables	109.14	107.63	84.24	85.24	86.34
<b>Total</b>	<b>170.37</b>	<b>170.89</b>	<b>149.60</b>	<b>152.77</b>	<b>156.11</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on Working Capital</b>	<b>23.00</b>	<b>23.07</b>	<b>20.20</b>	<b>20.62</b>	<b>21.07</b>

### **Capital Cost**

37. The Commission vide order dated 14.3.2016 in Petition No. 174/TT/2014 had approved the transmission tariff for the instant asset for the 2014-19 period based on admitted capital cost of ₹3259.51 lakh as on 1.4.2014.

38. Accordingly, the capital cost of ₹3259.51 lakh as on 1.4.2014 has been considered for the purpose of truing up of the tariff of the 2014-19 tariff period.

### **Capital Cost for the 2014-19 tariff period**

39. Accordingly, the capital cost of ₹3259.51 as on 1.4.2014 has been considered for truing up of the tariff for the 2014-19 tariff period.

### **Debt-Equity Ratio**

40. The Petitioner has considered the debt-equity ratio of 70:30 as on COD. The details of the debt-equity as on COD and 31.3.2019 considered for the purpose of tariff computation for the 2014-19 tariff period is as follows:

Asset	As on 1.4.2014		As on 31.3.2019	
	Capital cost (₹ in lakh)	(%)	Capital cost (₹ in lakh)	(%)
Debt	2640.07	81.00	2640.07	81.00
Equity	619.44	19.00	619.44	19.00
<b>Total</b>	<b>3259.51</b>	<b>100.00</b>	<b>3259.51</b>	<b>100.00</b>

### **Interest on Loan (IoL)**

41. The Petitioner has claimed IoL based on actual interest rates for each year during the 2014-19 period. The Petitioner has submitted that the weighted average



rate of IoL has been considered on the basis of the rates prevailing as on 1.4.2014 and has prayed to consider floating rate of interest applicable during 2014-19 period, if any, during the truing up of tariff.

42. We have considered the submissions made by the Petitioner. IOL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below. IoL has been worked out as detailed below: -

- a) Gross amount of loan, repayment of instalments, rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.
- b) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period.
- c) The actual loan has been repaid entirely in 2016-17. The weighted average rate of interest for 2016-17 is 9.726% and has been considered for calculation of IoL on normative loan for the subsequent years in line with Regulation 26(5) of the 2014 Tariff Regulations.

43. The details of IoL calculated for the instant asset is as follows:-

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	2640.07	2640.07	2640.07	2640.07	2640.07
Cumulative Repayments upto Previous Year	1816.64	1989.93	2163.23	2201.75	2240.26
Net Loan-Opening	823.43	650.14	476.84	438.32	399.81
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	173.29	173.29	38.52	38.52	38.52
Net Loan-Closing	650.14	476.84	438.32	399.81	361.29
Average Loan	736.78	563.49	457.58	419.07	380.55
Weighted Average Rate of Interest on Loan (%)	10.122	9.971	9.726	9.726	9.726
<b>Interest on Loan</b>	<b>74.58</b>	<b>56.19</b>	<b>44.50</b>	<b>40.76</b>	<b>37.01</b>

44. The details of IoL allowed *vide* order dated 14.3.2016 in Petition No. 174/TT/2014 for the instant asset, IoL claimed by the Petitioner in the instant petition and trued-up IoL allowed in the instant order are as under:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	73.01	54.64	43.03	39.36	35.69
Claimed by the Petitioner in the instant petition	74.58	56.19	44.51	40.76	37.01
Allowed after true-up in this order	74.58	56.19	44.50	40.76	37.01

### Return on Equity (RoE)

45. The Petitioner has claimed RoE for the instant asset in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:-

Year	Claimed effective tax (%)	Grossed up RoE [Base Rate/(1-t)] (%)
2014-15	21.018	19.624
2015-16	21.382	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

46. We have considered the submissions of the Petitioner. The Commission vide order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. The relevant portion of the order dated 27.4.2020 is as under:

*"26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for true up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after true up,*



shall be recovered or refunded to beneficiaries or the long-term transmission customers/ DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Effective Tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

”

47. The MAT rates considered in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE (Base Rate/1-t) (in %)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

48. BRPL has submitted that as per Regulation 49 of the 2014 Tariff Regulations, generating and transmission companies are entitled to bill deferred tax liability up to 31.3.2009, whenever it materialises. BRPL has further submitted that the details related to the deferred tax liability are not being shared by the Petitioner to verify the claim and accordingly the Petitioner be directed to submit the details of deferred tax liability claimed during 2014-19 in respect of the transmission assets which are in operation. BRPL also sought if the Petitioner is grossing up deferred tax amount while billing the beneficiaries and if so, then the same be refunded to the beneficiaries.

49. In response, the Petitioner submitted that Regulation 49 of the 2014 Tariff Regulations provides that deferred tax liability before 1.4.2009 only, shall be directly





recovered from the beneficiaries, as grossing up of RoE with effective tax rate is allowed w.e.f. 1.4.2009. Hence, the Petitioner has submitted that it is eligible for claiming the deferred tax liabilities for the period up to 31.3.2009 on materialization in the subsequent period i.e. 2009-10 onwards. The Petitioner has submitted that it is only claiming the reimbursement of income tax liability discharges as per the provisions of the Income Tax Act, 1961 and has further submitted that it has only claimed the deferred tax liability materialised till 31.3.2014 and is yet to claim the deferred tax liability for the 2014-19 tariff period. The Petitioner has also submitted that deferred tax liability billed/ materialised is not considered while grossing up the RoE and all the required documents have been furnished.

50. BRPL has further submitted that the actual tax paid on income from other business activities of the Petitioner are required to be excluded from the computation of the effective tax rate which has not been done by the Petitioner. BRPL also submitted that the Petitioner needs to furnish the details regarding the same and only then can the differential tariff claimed on account of trued up RoE based on effective tax rate be allowed.

51. In response, the Petitioner has submitted that a single PAN is applicable for all taxpayers and hence the Petitioner does not file income tax return on transmission business in respect of particular region. The Petitioner also contended that there is no provision in the Income Tax Act, 1961 for filing separate income tax returns on the basis of nature of business being undertaken by an entity. The Petitioner submitted that all relevant documents regarding the same have been filed *vide* affidavit dated 10.8.2020 in Petition No. 24/TT/2020.



52. UPPCL has submitted that for years 2016-17, 2017-18 and 2018-19, the rate of RoE has been calculated by the Petitioner based on presumptive figures and not on the basis of figures approved by the IT authorities.

53. In response, the Petitioner has submitted that the effective rate of tax considered for 2014-15, 2015-16 and 2016-17 are based on Assessment orders issued by the Income Tax Authorities for the purposes of grossing up of the rate of RoE and the effective rate of tax for 2017-18 and 2018-19 are based on the Income Tax Returns filed.

54. We have considered submissions of BRPL, UPPCL and the Petitioner. RoE is allowed as per provisions of the 2014 Tariff Regulations and the same for the instant transmission asset is as follows:-

	(₹ in lakh)				
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	619.44	619.44	619.44	619.44	619.44
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	619.44	619.44	619.44	619.44	619.44
Average Equity	619.44	619.44	619.44	619.44	619.44
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
MAT rate for the respective Financial year (%)	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-tax) (%)	19.610%	19.705%	19.705%	19.705%	19.758%
<b>Return on Equity (Pre-tax)</b>	<b>121.47</b>	<b>122.06</b>	<b>122.06</b>	<b>122.06</b>	<b>122.39</b>

55. The details of RoE allowed *vide* order dated 14.3.2016 in Petition No. 174/TT/2014 for the instant transmission asset, RoE claimed by Petitioner in the instant petition and trued-up RoE allowed in the instant order are as under:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	121.47	121.47	121.47	121.47	121.47



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	121.57	122.12	122.06	122.06	122.39
Allowed after true-up in this order	121.47	122.06	122.06	122.06	122.39

### **Depreciation**

56. UPPCL has requested to direct the Petitioner to submit the justification of cumulative depreciation up to previous year in 2014-15 which is ₹1816.61 lakh, whereas the cumulative depreciation up to 31.3.2014 is ₹1442.93 lakh. In response to the same, the Petitioner has submitted that cumulative depreciation as on 1.4.2014 can be derived from the tariff calculation of 2009-14 given at Enclosure-8 of the petition.

57. We have considered the submissions of Petitioner and UPPCL. The depreciation for 2014-19 period is trued up for the instant transmission asset as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations (as placed in Annexure-I). The Weighted Average Rate of Depreciation (WAROD) has been worked out after taking into account the depreciation rate of asset as prescribed in the 2014 Tariff Regulations and the trued-up depreciation allowed for the instant transmission asset is as under:

	(₹ in lakh)				
Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Addition during 2014-19 due to Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Average Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Weighted Average Rate of Depreciation (%)	5.32	5.32	Spread	Spread	Spread
Balance useful life of the asset	22.00	21.00	20.00	19.00	18.00
Elapsed life at the beginning of the year	10.00	11.00	12.00	13.00	14.00
Aggregated Depreciable Value	2933.56	2933.56	2933.56	2933.56	2933.56
<b>Depreciation during the year</b>	<b>173.29</b>	<b>173.29</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>
Aggregate Cumulative Depreciation	1989.90	2163.20	2201.72	2240.23	2278.75
Remaining Aggregate	943.66	770.36	731.84	693.33	654.81



Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable Value					

58. The details of depreciation allowed *vide* order dated 14.3.2016 in Petition No. 174/TT/2014 for the instant asset, depreciation claimed by Petitioner in the instant petition and trued-up depreciation allowed in the instant order are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	173.29	173.29	37.74	37.74	37.74
Claimed by the Petitioner in the instant petition	173.29	173.29	38.53	38.53	38.53
Allowed after true-up in this order	173.29	173.29	38.52	38.52	38.52

#### **Operation & Maintenance Expenses (O&M Expenses)**

59. The details of the O&M Expenses claimed by the Petitioner for the instant transmission asset and allowed under Regulation 29(3) of the 2014 Tariff Regulations for purpose of tariff are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Sub-station Bays</b>					
400 kV Agra Line Bays Agra Sub-station (AIS) – Nos.	2	2	2	2	2
400 kV Agra (UPPCL) Line Bays at Agra Sub-station (AIS) – Nos.	2	2	2	2	2
<b>Total 400 kV (AIS) Bays</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Norm (₹ lakh/bay)</b>					
400 kV Bay (AIS)	60.300	62.300	64.370	66.510	68.710
<b>Total Sub-station O&amp;M</b>	<b>241.20</b>	<b>249.20</b>	<b>257.48</b>	<b>266.04</b>	<b>274.84</b>
<b>Transmission Lines</b>					
400 kV D/C Agra (POWERGIRD) – Agra (UPPCL) Line (km)	29.982	29.982	29.982	29.982	29.982
<b>Norms (₹ lakh/km)</b>					
D/C Twin Conductor	0.707	0.731	0.755	0.780	0.806
<b>Total Transmission Line O&amp;M</b>	<b>21.20</b>	<b>21.92</b>	<b>22.64</b>	<b>23.39</b>	<b>24.17</b>
<b>Total O&amp;M Expenses</b>	<b>262.40</b>	<b>271.12</b>	<b>280.12</b>	<b>289.43</b>	<b>299.01</b>



60. The details of O&M Expenses allowed vide order dated 14.3.2016 in Petition No. 174/TT/2014 for the instant transmission asset, O&M Expenses claimed by Petitioner in the instant petition and trued-up O&M Expenses allowed in the instant order are as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	262.40	271.12	280.12	289.43	299.01
Claimed by the Petitioner in the instant petition	262.40	271.12	280.12	289.43	299.01
Allowed after true-up in this order	262.40	271.12	280.12	289.43	299.01

**Interest on Working Capital (“IWC”)**

61. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:-

**(i) Maintenance spares:**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

**(ii) O & M Expenses:**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

**(iii) Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

**(iv) Rate of interest on working capital:**

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

62. The trued up Interest on Working Capital allowed for the instant transmission asset for the 2014-19 tariff period is as under:-



(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	21.87	22.59	23.34	24.12	24.92
Maintenance Spares	39.36	40.67	42.02	43.41	44.85
Receivables	109.12	107.62	84.23	85.23	86.33
<b>Total</b>	<b>170.35</b>	<b>170.88</b>	<b>149.59</b>	<b>152.76</b>	<b>156.10</b>
Rate of Interest on Working Capital (%)	13.50	13.50	13.50	13.50	13.50
<b>Interest on working capital</b>	<b>23.00</b>	<b>23.07</b>	<b>20.20</b>	<b>20.62</b>	<b>21.07</b>

63. The details of IWC allowed *vide* order dated 14.3.2016 in Petition No. 174/TT/2014 for the instant asset, IWC claimed by Petitioner in the instant petition and trued-up IWC allowed in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	22.96	23.02	20.13	20.56	21.00
Claimed by the Petitioner in the instant petition	23.00	23.07	20.20	20.62	21.07
Allowed after true-up in this order	23.00	23.07	20.20	20.62	21.07

#### Approved Annual Fixed Charges for the 2014-19 Tariff Period

64. Accordingly, the annual transmission charges approved after truing up for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	173.29	173.29	38.52	38.52	38.52
Interest on Loan	74.58	56.19	44.50	40.76	37.01
Return on Equity	121.47	122.06	122.06	122.06	122.39
Interest on Working Capital	23.00	23.07	20.20	20.62	21.07
O&M Expenses	262.40	271.12	280.12	289.43	299.01
<b>Total</b>	<b>654.74</b>	<b>645.73</b>	<b>505.39</b>	<b>511.38</b>	<b>518.00</b>

65. The annual transmission charges allowed in order dated 14.3.2016 in Petition No. 174/TT/2014 for 2014-19 period, claimed in instant petition as true up for 2014 - 19 period and allowed after true up of 2014-19 period are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 14.3.2016 in Petition No. 174/TT/2014	653.13	643.54	502.49	508.56	514.92



Claimed by the Petitioner in the instant petition	654.84	645.79	505.42	511.40	518.01
Allowed after true-up in this order	654.74	645.73	505.39	511.38	518.00

### **DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD**

66. The Petitioner has claimed the following transmission charges for the instant transmission asset for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	38.53	38.53	38.51	38.53	38.50
Interest on Loan	33.27	29.52	25.77	22.03	18.28
Return on Equity	122.39	122.39	122.39	122.39	122.39
Interest on Working Capital	9.77	9.97	10.16	10.36	10.55
Operation and Maintenance	157.28	162.73	168.37	174.20	180.22
<b>Total</b>	<b>361.24</b>	<b>363.14</b>	<b>365.20</b>	<b>367.51</b>	<b>369.94</b>

67. The Petitioner has claimed the following 'Interest on Working Capital' for the 2019-24 tariff period for the instant transmission asset:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	13.11	13.56	14.03	14.52	15.02
Maintenance Spares	23.59	24.41	25.26	26.13	27.03
Receivables	44.41	44.77	45.02	45.31	45.48
<b>Total</b>	<b>81.11</b>	<b>82.74</b>	<b>84.31</b>	<b>85.96</b>	<b>87.53</b>
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>9.77</b>	<b>9.97</b>	<b>10.16</b>	<b>10.36</b>	<b>10.55</b>

### **Capital Cost**

68. Regulations 19 of the 2019 Tariff Regulations provide as under: -

"19. **Capital Cost** (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

(2) The Capital Cost of a new project shall include the following:

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;



- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(3) The Capital cost of an existing project shall include the following:

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(4) The capital cost in case of existing or new hydro generating station shall also include:





- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
  - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
  - (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

*Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;*

*Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.*

- (c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*

69. The capital cost of ₹3259.51 lakh as on 31.3.2019 has been considered for the purpose of determination of transmission tariff for the 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

#### **Additional Capital Expenditure (ACE)**

70. Regulations 24 and 25 of the 2019 Tariff Regulations provide as under: -

*"24. Additional Capitalization within the original scope and up to the cut-off date*

*(1) The Additional Capital Expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*



- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

Provided that in case of any replacement of the Asset, the additional capitalization shall be worked out after adjusting the gross fixed Asset and cumulative depreciation of the Asset replaced on account of de-capitalization.

(2) The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.”

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

(1) The additional capital expenditure incurred or projected to be 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:

- (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
- (b) Change in law or compliance of any existing law;
- (c) Deferred works relating to ash pond or ash handling system in the original scope of work;
- (d) Liability for works executed prior to the cut-off date;
- (e) Force Majeure events;
- (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
- (g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of Asset deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed Asset and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the Asset is not commensurate with the useful life of the project and such Asset have been fully depreciated in accordance with the provisions of these regulations;
- (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
- (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
- (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

71. The Petitioner has not claimed any ACE for the 2019-24 tariff period.



### Capital Cost for the 2019-24 Tariff Period

72. Accordingly, the capital cost of the instant asset, considered for the 2019-24 tariff period, subject to truing up, is as follows:-

(₹ in lakh)		
Capital cost allowed as on 1.4.2019	ACE for 2019-24 period	Total estimated completion capital cost up to 31.3.2024
3259.51	0.00	3259.51

### Debt-Equity Ratio

73. Regulation 18 of the 2019 Tariff Regulations provides as under: -

*"18. Debt-Equity Ratio: 1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

*Provided that:*

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;*
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;*
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*

**Explanation-***The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*

*(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*

*(3) In case of the generating station and the transmission project including communication, project declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*

*Provided that in case of a generating station or a transmission project including communication project which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*



Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4).In case of the generating station and the transmission project including communication project declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5).Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as Additional Capital Expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

74. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period are as follows: -

Asset	Capital cost as on 1.4.2019 (₹ lakh)	(%)	Total capital cost as on 31.3.2024 (₹ lakh)	(%)
Debt	2640.07	81.00	2640.07	81.00
Equity	619.44	19.00	619.44	19.00
<b>Total</b>	<b>3259.51</b>	<b>100.00</b>	<b>3259.51</b>	<b>100.00</b>

#### Return on Equity (RoE)

75. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:-

“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission project including communication project and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission project;

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission project 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 project up to load dispatch centre or protection project based on the report submitted by the respective RLDC;



ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

31. **Tax on Return on Equity:** (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."



76. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable during 2019-20 has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance Clause (3) of Regulation 31 of the 2019 Tariff Regulations. RoE allowed for the instant transmission asset under Regulation 30 of the 2019 Tariff Regulations is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	619.44	619.44	619.44	619.44	619.44
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	619.44	619.44	619.44	619.44	619.44
Average Equity	619.44	619.44	619.44	619.44	619.44
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pre-tax) (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity (Pre-tax)</b>	<b>116.34</b>	<b>116.34</b>	<b>116.34</b>	<b>116.34</b>	<b>116.34</b>

#### Interest on Loan (IoL)

77. Regulation 32 of the 2019 Tariff Regulations provides as under: -

"32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of Asset, 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.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year. (5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;



*Provided further that if the generating station or the transmission project, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*

*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;*

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

*(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing”.*

78. UPPCL has submitted that the Petitioner's claim to adjust the impact of Interest on Loan due to change in interest rate on account of floating rate of interest is premature. In response, the Petitioner has submitted that no loans with floating interest rate have been engaged in the instant asset and hence prayer to allow floating rate of interest was inadvertently made in the petition.

79. We have considered the submissions of Petitioner and UPPCL. The weighted average rate of IoL has been considered on the basis of the rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up or next revision of tariff. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is as follows:



	(₹ in lakh)				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	2640.07	2640.07	2640.07	2640.07	2640.07
Cumulative Repayments up to Previous Year	2278.78	2317.30	2355.82	2394.34	2432.85
Net Loan-Opening	361.29	322.77	284.25	245.73	207.22
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	38.52	38.52	38.52	38.52	38.52
Net Loan-Closing	322.77	284.25	245.73	207.22	168.70
Average Loan	342.03	303.51	264.99	226.48	187.96
Weighted Average Rate of Interest on Loan (%)	9.726	9.726	9.726	9.726	9.726
<b>Interest on Loan</b>	<b>33.26</b>	<b>29.52</b>	<b>25.77</b>	<b>22.03</b>	<b>18.28</b>

### Depreciation

80. Regulations 33 of the 2019 Tariff Regulations provide as under: -

*“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 or the transmission project taking into consideration the depreciation of individual units:*

*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 or capital cost of all elements of the transmission project, for which single tariff needs to be determined.*

*(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission project, weighted average life for the generating station of the transmission project shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*

*(3) The salvage value 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:*

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

*Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*

*Provided also 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:*





Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the Asset of the generating station and transmission project:

*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 Asset."*

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 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.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

81. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the instant transmission asset is as follows:-

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Addition during 2019-24 due to Projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Average Gross Block	3259.51	3259.51	3259.51	3259.51	3259.51
Weighted Average Rate of Depreciation (WAROD) (%)	Spread	Spread	Spread	Spread	Spread
Balance useful life of the asset	17.00	16.00	15.00	14.00	13.00
Elapsed Life at the beginning of the year	15.00	16.00	17.00	18.00	19.00



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Aggregate Depreciable Value	2933.56	2933.56	2933.56	2933.56	2933.56
<b>Depreciation during the year</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>
Cumulative depreciation up to previous year	2278.75	2317.27	2355.79	2394.31	2432.82
Aggregate Cumulative Depreciation	2317.27	2355.79	2394.31	2432.82	2471.34
Remaining Depreciable Value	616.29	577.77	539.25	500.74	462.22

### **Operation & Maintenance Expenses (O&M Expenses)**

82. Regulation 35(3) of the 2019 Tariff Regulations specifies the norms for O&M

Expenses for the transmission project as:

*“(3) Transmission system:*

*(a) The following normative operation and maintenance expenses shall be admissible for the transmission system:*

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs Lakh per MVA)</b>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	2,563	2,653	2,746	2,842	2,942

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.

(4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."

83. The O&M Expenses claimed by the Petitioner for the instant transmission asset are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400 kV Agra Line Bays at Agra S/s (AIS) – Nos.	2	2	2	2	2
400 kV Agra (UPPCL) Line Bays at Agra S/s (AIS) – Nos.	2	2	2	2	2
<b>Total 400 kV (AIS) Bays</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Norm (₹ lakh/bay)</b>					
4000 kV Bay (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station Bays</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>



<b>AC &amp; HVDC Lines</b>					
400 kV Agra (POWERGRID)- Agra (UPPCL) T/L (km)	29.982	29.982	29.982	29.982	29.982
<b>Norm (₹ lakh/ km)</b>					
D/C Twin Conductor	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission Line</b>	<b>26.41</b>	<b>27.34</b>	<b>28.30</b>	<b>29.29</b>	<b>30.31</b>
<b>Communication System</b>					
PLCC – Capital Cost (₹ in lakh)	113.48	113.48	113.48	113.48	113.48
<b>Norm (%)</b>					
PLCC	2	2	2	2	2
<b>Total Communication System</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>	<b>2.27</b>
<b>Total O&amp;M Expenses</b>	<b>157.28</b>	<b>162.73</b>	<b>168.37</b>	<b>174.20</b>	<b>180.22</b>

84. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No.126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder.

*"103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment."*

*"105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication*



system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner's prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other "communication system", for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.."

85. The O&M Expenses allowed for the 2019-24 tariff period for the instant asset are as under:-

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
400 kV Agra Line Bays at Agra S/s (AIS) – Nos.	2	2	2	2	2
400 kV Agra (UPPCL) Line Bays at Agra S/s (AIS) – Nos.	2	2	2	2	2
<b>Total 400 kV (AIS) Bays</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Norm (₹ lakh/bay)</b>					
4000 kV Bay (AIS)	32.15	33.28	34.45	35.66	36.91
<b>Total Sub-station Bays</b>	<b>128.60</b>	<b>133.12</b>	<b>137.80</b>	<b>142.64</b>	<b>147.64</b>
<b>AC &amp; HVDC Lines</b>					
400 kV Agra (POWERGRID)-Agra (UPPCL) T/L (km)	29.982	29.982	29.982	29.982	29.982
<b>Norm (₹ lakh/ km)</b>					
D/C Twin Conductor	0.881	0.912	0.944	0.977	1.011
<b>Total Transmission Line</b>	<b>26.41</b>	<b>27.34</b>	<b>28.30</b>	<b>29.29</b>	<b>30.31</b>
<b>Total O&amp;M Expenses</b>	<b>155.01</b>	<b>160.46</b>	<b>166.10</b>	<b>171.93</b>	<b>177.95</b>

**Interest on Working Capital (IWC)**

86. Regulation 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provide as under:

"34. Interest on Working Capital: (1) The working capital shall cover:



(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission Project:

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission project including communication project or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of triung-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.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."

"3. **Definition** - In these regulations, unless the context otherwise requires: -

(7) '**Bank Rate**' means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"

87. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed thereon for the instant asset is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	12.92	13.37	13.84	14.33	14.83
Maintenance Spares	23.25	24.07	24.92	25.79	26.69
Receivables	43.37	43.64	43.89	44.17	44.36
<b>Total</b>	<b>79.54</b>	<b>81.08</b>	<b>82.65</b>	<b>84.29</b>	<b>85.88</b>
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest on working capital</b>	<b>9.58</b>	<b>9.12</b>	<b>9.30</b>	<b>9.48</b>	<b>9.66</b>



### **Annual Fixed Charges for the 2019-24 Tariff Period**

88. The detailed computation of the various components of the annual fixed charges for the combined transmission asset for the tariff period 2019-24 is summarized below:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	38.52	38.52	38.52	38.52	38.52
Interest on Loan	33.26	29.52	25.77	22.03	18.28
Return on Equity	116.34	116.34	116.34	116.34	116.34
Interest on Working Capital	9.58	9.12	9.30	9.48	9.66
O&M Expenses	155.01	160.46	166.10	171.93	177.95
<b>Total</b>	<b>352.72</b>	<b>353.97</b>	<b>356.04</b>	<b>358.30</b>	<b>360.75</b>

### **Filing Fee and Publication Expenses**

89. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on Pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

### **Licence Fee and RLDC Fees and Charges**

90. UPPCL has submitted that the license fee is the onus of the Petitioner and hence should be borne by PGCIL only. In response, the Petitioner submitted that license fee may be allowed to be recovered separately from the respondents in terms of Regulation 70 of the 2019 Tariff Regulations. The fees and charges to be paid by the petitioner as ISTS licensee (deemed ISTS licensee) under Central Electricity Regulatory Commission (Fees and Charges of RLDC and other matters) Regulations, 2019 as amended from time to time shall also be recoverable from the DICs as provided under Regulations 70(3) of the 2019 Tariff Regulations.



91. We have considered the submissions of the Petitioner and UPPCL. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

### **Goods and Services Tax**

92. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

### **Security Expenses**

93. The Petitioner has submitted that security expenses for the instant asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on yearly basis.





94. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission Asset in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

#### **Capital Spares**

95. The Petitioner has sought reimbursement of capital spares at the end of tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

#### **Sharing of Transmission Charges**

96. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

97. To summarise, the revised Annual Fixed Charges (AFC) approved for the year 2003-04 is ₹409.60 lakh. The revised AFC allowed for the 2004-09 tariff period and the 2014-19 tariff periods and the trued-up AFC allowed for the transmission asset for the 2014-19 tariff period are as under:



(₹ in lakh)					
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Annual Fixed Charges	568.73	590.28	676.88	660.78	645.04
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Fixed Charges	695.46	697.71	698.86	695.94	695.06
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	654.74	645.73	505.39	511.38	518.00

The AFC allowed for the transmission asset for the 2019-24 tariff period are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	352.72	353.97	356.04	358.30	360.75

98. This order disposes of Petition No. 255/TT/2019.

**Sd/  
(Arun Goyal)  
Member**

**Sd/  
(I. S. Jha)  
Member**

**Sd/  
(P. K. Pujari)  
Chairperson**



Asset	2014-19	Combined admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations					
	Capital Expenditure as on 1.4.2014				2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Instant Asset	Land	0.00	0.00	0.00	0.00	0.00	-	-	-	-
	Building	0.00	0.00	3.34	0.00	0.00	-	-	-	-
	Transmission Line	2175.38	2175.38	5.28	114.86	114.86	-	-	-	-
	Sub-Station	970.65	970.65	5.28	51.25	51.25	-	-	-	-
	PLCC	113.48	113.48	6.33	7.18	7.18	-	-	-	-
	Leasehold Land	0.00	0.00	3.34	0.00	0.00	-	-	-	-
	IT Equipment and software	0.00	0.00	15.00	0.00	0.00	-	-	-	-
<b>TOTAL</b>		<b>3259.51</b>	<b>3259.51</b>		<b>173.29</b>	<b>173.29</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>	<b>38.52</b>
			<b>Average Gross Block (₹ in lakh)</b>		<b>3259.51</b>	<b>3259.51</b>	<b>3259.51</b>	<b>3259.51</b>	<b>3259.51</b>	<b>3259.51</b>
			<b>Weighted Average Rate of Depreciation (%)</b>		<b>5.32</b>	<b>5.32</b>	<b>Spread</b>	<b>Spread</b>	<b>Spread</b>	<b>Spread</b>

**ATTESTED TRUE COPY**  
*Handwritten: Page 6 - 27 to 25*  
 Authorised Signatory  
 Power Grid Corporation of India Ltd.  
 Flat No. 2, Sector-29, Gurgaon-122001 (HARYANA)



Form-2

**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Year Days	366.00	365.00	365.00	365.00	366.00
Tariff Days	366.00	365.00	365.00	365.00	366.00
Depreciation-Form No. 10A	38.52	38.53	38.51	38.53	38.50
Interest on Loan-Form No. 9E	33.27	29.52	25.77	22.03	18.28
Return on Equity-Form No. 8	116.34	116.34	116.34	116.34	116.34
Int. on Working capital-Form No.11	9.58	9.12	8.67	8.84	10.31
Op. and maintenance-Form No.2	155.01	160.46	166.10	171.93	177.95
Total AFC	352.72	353.97	355.39	357.67	361.38

(Petitioner)



76

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	AGRA (POWERGRID) - AGRA (UPPCL)	
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)	
Region	Northern Region	DOC Date   Jul 1, 2003

**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
AGRA(POWERGRID)-AGRA(UPPCL) AT AGRA	AC	DC	2	400 KV	4.000	0.000	29.982	Jul 1, 2003	Y	

**Summary:**

O&M Expenses For the Transmission Lines Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
<b>DOUBLE CIRCUIT (TWIN CONDUCTOR)</b>					
Normative Rate of O&M as per Regulation	0.881	0.912	0.944	0.977	1.011
No. of Units - ( Length in KM )	29.982	29.982	29.982	29.982	29.982
O&M Claimed	26.41	27.34	28.30	29.29	30.31

tt



2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transformers/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		
Agra:AGRA LINE BAY	Conventional	400 KV		2.000								Jul 1, 2003	Y
Agra:AGRA(UPPCL) LINE BAY	Conventional	400 KV		2.000								Jul 1, 2003	Y

Summary:

O&M Expenses For Substations Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
<b>400KV SUB-STATION</b>					
Normative Rate of O&M as per Regulation	32.15	33.28	34.45	35.66	36.91
No. of Units	4.00	4.00	4.00	4.00	4.00
O&M Claimed	128.60	133.12	137.80	142.64	147.64

78



### 3. Communication System

#### Summary:

79



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
<b>A) Normative O&amp;M</b>					
Transmission Line	26.41	27.34	28.30	29.29	30.31
Substation	128.60	133.12	137.80	142.64	147.64
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>155.01</b>	<b>160.46</b>	<b>166.10</b>	<b>171.93</b>	<b>177.95</b>
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
<b>Total O&amp;M</b>	<b>155.01</b>	<b>160.46</b>	<b>166.10</b>	<b>171.93</b>	<b>177.95</b>

(Petitioner)



80



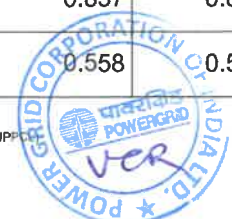
**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Base Rate of Return of Equity (in %)</b>						
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
<b>Effective tax rate (in %)</b>						
Grossed up Rate of ROE (in %)	19.758	18.782	18.782	18.782	18.782	18.782
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>						
765 kV	96.20	45.01	46.60	48.23	49.93	51.68
400 kV	68.71	32.15	33.28	34.45	35.66	36.91
220 kV	48.10	22.51	23.30	24.12	24.96	25.84
132 kV and below	34.36	16.08	16.64	17.23	17.83	18.46
<b>Norms for Transformers (Rs Lakh per MVA)</b>						
765 kV	0.00	0.491	0.508	0.526	0.545	0.564
400 kV	0.00	0.358	0.371	0.384	0.398	0.411
220 kV	0.00	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.00	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>						
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.806	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.691	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.461	0.503	0.521	0.539	0.558	0.578



Single Circuit (Single Conductor)	0.23	0.252	0.26	0.27	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.21	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.806	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.346	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.123	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.413	1.544	1.598	1.654	1.713	1.773
<b>Norms for HVDC stations</b>						
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	0.00	834.00	864.00	894.00	925.00	958.00
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	0.00	1,666.00	1,725.00	1,785.00	1,848.00	1,913.00
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	0.00	2,252.00	2,331.00	2,413.00	2,498.00	2,586.00
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	0.00	2,468.00	2,555.00	2,645.00	2,738.00	2,834.00
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	0.00	1,696.00	1,756.00	1,817.00	1,881.00	1,947.00
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	0.00	2,563.00	2,653.00	2,746.00	2,842.00	2,942.00

(Petitioner)



**Financial Package upto COD**

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2019		As Admitted on COD 01/04/2019	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00		0.00	INR	2,640.07
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	619.44
Total Equity	INR	0.00		0.00	INR	619.44
Debt Equity Ratio					81:19	
Total Cost	INR	0.00		0.00	INR	3,259.51

Particulars	Debt	Equity	Total
Addcap for 2019 - 2020			0.00
Addcap for 2020 - 2021			0.00
Addcap for 2021 - 2022			0.00
Addcap for 2022 - 2023			0.00



Addcap for 2023 - 2024			0.00
------------------------	--	--	------

Particulars	Actual	Normative	
<b>Addcap for 2019 - 2020</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2020 - 2021</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2021 - 2022</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2022 - 2023</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2023 - 2024</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		3,259.51	

(Petitioner)



**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the year	366.00	365.00	365.00	365.00	366.00
No. of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
Opening Normative Equity	619.44	619.44	619.44	619.44	619.44
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	619.44	619.44	619.44	619.44	619.44
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	619.44	619.44	619.44	619.44	619.44
Average Normative Equity	619.44	619.44	619.44	619.44	619.44
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Return on Equity	116.34	116.34	116.34	116.34	116.34
Pro rata return on Equity	116.34	116.34	116.34	116.34	116.34



**Calculation of WAR of interest on actual loan**

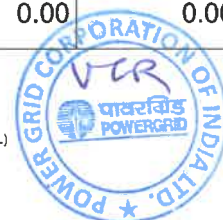
Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	AGRA (POWERGRID) - AGRA (UPPCL)				
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)				
Region	Northern Region	DOC Date	Jul 1, 2003		

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>BOND X -DOCO</b>					
Gross Loan- Opening	415.00	415.00	415.00	415.00	415.00
Cumulative repayments of Loans upto previous year	415.00	415.00	415.00	415.00	415.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	10.90	10.90	10.90	10.90	10.90
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XI-OPTION- I -DOCOC</b>					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Loan- Opening	443.00	443.00	443.00	443.00	443.00
Cumulative repayments of Loans upto previous year	443.00	443.00	443.00	443.00	443.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00



Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.80	9.80	9.80	9.80	9.80
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### BOND XII -DOCO

Gross Loan- Opening	1,281.00	1,281.00	1,281.00	1,281.00	1,281.00
Cumulative repayments of Loans upto previous year	1,281.00	1,281.00	1,281.00	1,281.00	1,281.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.70	9.70	9.70	9.70	9.70
Interest on loan	0.00	0.00	0.00	0.00	0.00

#### ORIENTAL BANK OF COMMERCE -DOCO

Gross Loan- Opening	204.00	204.00	204.00	204.00	204.00
Cumulative repayments of Loans upto previous year	204.00	204.00	204.00	204.00	204.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.10	9.10	9.10	9.10	9.10
Interest on loan	0.00	0.00	0.00	0.00	0.00



**PUNJAB NATIONAL BANK- II -DOCO**

Gross Loan- Opening	245.00	245.00	245.00	245.00	245.00
Cumulative repayments of Loans upto previous year	245.00	245.00	245.00	245.00	245.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.60	8.60	8.60	8.60	8.60
Interest on loan	0.00	0.00	0.00	0.00	0.00

**Summary**

Gross Loan- Opening	2,588.00	2,588.00	2,588.00	2,588.00	2,588.00
Cumulative repayments of Loans upto previous year	2,588.00	2,588.00	2,588.00	2,588.00	2,588.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.7258	9.7258	9.7258	9.7258	9.7258
Interest on loan	0.00	0.00	0.00	0.00	0.00





**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No. of Days in the Year	366.00	365.00	365.00	365.00	366.00
No. of days for which Tariff claimed	366.00	365.00	365.00	365.00	366.00
Gross normative loan-Opening	2,640.07	2,640.07	2,640.07	2,640.07	2,640.07
Cumulative repayments of Normative loan upto previous year	2,278.76	2,317.28	2,355.81	2,394.32	2,432.85
Net normative loan-Opening	361.31	322.79	284.26	245.75	207.22
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	38.52	38.53	38.51	38.53	38.50
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	322.79	284.26	245.75	207.22	168.72
Average normative loan	342.05	303.53	265.01	226.49	187.97
Weighted Average Rate of interest on actual loan	9.7258	9.7258	9.7258	9.7258	9.7258
Interest on normative loan	33.27	29.52	25.77	22.03	18.28
Pro rata interest on normative loan	33.27	29.52	25.77	22.03	18.28



**Calculation of Depreciation Rate on Original Project Cost**

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC0 Date	Jul 1, 2003

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2024
<b>2019-20</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.78
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	6.33	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.52</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.181773</b>	

<b>2020-21</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.79
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	6.33	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.53</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.18208</b>	

<b>2021-22</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.78
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	6.33	1.22
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.51</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.181466</b>	



2022-23						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.79
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	6.33	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.53</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.18208</b>	

2023-24						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.78
Sub Station	970.65	0.00	970.65	970.65	5.28	11.50
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	6.33	1.22
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.50</b>



Weighted Average Rate of Depreciation(%)					1.181159	
--	--	--	--	--	----------	--

(Petitioner)



**Statement of Depreciation**

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited			
Project	AGRA (POWERGRID) - AGRA (UPPCL)			
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)			
Region	Northern Region	DOCO Date	Jul 1, 2003	

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	32.00	32.00	32.00	32.00	32.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	15.00	16.00	17.00	18.00	19.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	17.00	16.00	15.00	14.00	13.00
<b>Capital Base</b>					
1.4 Opening capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.8 Average capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.12 Depreciable Value(1.10+90% of 1.11)	2,933.56	2,933.56	2,933.56	2,933.56	2,933.56
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	1.181773	1.18208	1.181466	1.18208	1.181159



1.14 Depreciation(for the period)	38.52	38.53	38.51	38.53	38.50
1.15 Depreciation(Annualised)	38.52	38.53	38.51	38.53	38.50
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	2,278.79	2,317.31	2,355.84	2,394.35	2,432.88
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	2,317.31	2,355.84	2,394.35	2,432.88	2,471.38

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOCO Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
No of Days in the year	366.00	365.00	365.00	365.00	366.00
No of days for which tariff claimed	366.00	365.00	365.00	365.00	366.00
O&M Expenses-one month	12.92	13.37	13.84	14.33	14.83
Maintenance spares 15% of O&M Expenses	23.25	24.07	24.92	25.79	26.69
Receivables equivalent to 45 days of AFC	43.37	43.64	43.82	44.10	44.43
Total Working capital	79.54	81.08	82.58	84.22	85.95
Bank Rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.	12.05	11.25	10.50	10.50	12.00
Interest on working capital	9.58	9.12	8.67	8.84	10.31
Pro rata interest on working capital	9.58	9.12	8.67	8.84	10.31

(Petitioner)





*Enu-3*

**Summary of Tariff**

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
Year Days	365.00	365.00	365.00	366.00	365.00
Tariff Days	365.00	365.00	365.00	366.00	365.00
Depreciation-Form No. 10A	38.53	38.50	38.53	38.50	38.53
Interest on Loan-Form No. 9E	14.54	10.79	7.04	3.30	0.71
Return on Equity-Form No. 8	116.34	116.34	116.34	116.34	116.34
Int. on Working capital-Form No.11	8.72	8.99	9.28	9.57	9.92
Op. and maintenance-Form No.2	143.93	151.48	159.41	167.79	176.58
Total AFC	322.06	326.10	330.60	335.50	342.08

(Petitioner)



Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	AGRA (POWERGRID) - AGRA (UPPCL)	
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)	
Region	Northern Region	DOCODate Jul 1, 2003

**1. Transmission Lines**

(Amount in Rs. Lakh)

Name of Line	Type of Line AC/HVDC	S/C or D/C	No of Sub-Conductors	Voltage Level KV	Line Bays	Line Reactor (Including Switchable Reactor)	Line Length Km	Date of Commercial operation	Covered in the present petition	
									Yes/No	If No, Petition No.
AGRA(POWERGRID)-AGRA(UPPCL) AT AGRA	AC	DC	2	400 KV	4.000	0.000	29.982	Jul 1, 2003	Y	

**Summary:**

O&M Expenses For the Transmission Lines Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
	<b>DOUBLE CIRCUIT (TWIN CONDUCTOR)</b>				
Normative Rate of O&M as per Regulation	0.861	0.906	0.953	1.003	1.056
No. of Units - ( Length in KM )	29.982	29.982	29.982	29.982	29.982
O&M Claimed	25.81	27.16	28.57	30.07	31.66



98

2. Sub Station

Name of Sub-station	Type of Substation	Voltage Level KV	No. of Transfomers/ Reactor/ SVC etc. (with capacity)	No. of Bays				MVA/MVAR Capacity				Date of Comm. operation	Covered in the present petition
				765 KV	400 KV	220 KV	132 KV	765 KV	400 KV	220 KV	132 KV		
Agra:AGRA LINE BAY	Conventional	400 KV		2,000								Jul 1, 2003	Y
Agra:AGRA(UPPCL) LINE BAY	Conventional	400 KV		2,000								Jul 1, 2003	Y

Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
<b>400KV SUB-STATION</b>					
Normative Rate of O&M as per Regulation	29.53	31.08	32.71	34.43	36.23
No. of Units	4.00	4.00	4.00	4.00	4.00
O&M Claimed	118.12	124.32	130.84	137.72	144.92



### 3. Communication System

#### Summary:

100



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
<b>A) Normative O&amp;M</b>					
Transmission Line	25.81	27.16	28.57	30.07	31.66
Substation	118.12	124.32	130.84	137.72	144.92
Communication System	0.00	0.00	0.00	0.00	0.00
<b>Total Normative O&amp;M</b>	<b>143.93</b>	<b>151.48</b>	<b>159.41</b>	<b>167.79</b>	<b>176.58</b>
<b>B) O&amp;M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition )</b>					
*Security Expenses	0.00	0.00	0.00	0.00	0.00
*Actual Capital Spare consumed	0.00	0.00	0.00	0.00	0.00
*Insurance Premium Paid	0.00	0.00	0.00	0.00	0.00
<b>Total O&amp;M</b>	<b>143.93</b>	<b>151.48</b>	<b>159.41</b>	<b>167.79</b>	<b>176.58</b>

(Petitioner)



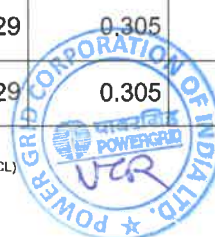
**Normative parameters considered for tariff computations**

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
<b>Base Rate of Return of Equity (in %)</b>						
Max Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
<b>Effective tax rate (in %)</b>						
Grossed up Rate for ROE of 15.5% (in %)	18.782	18.782	18.782	18.782	18.782	18.782
Grossed up Rate for ROE of 15.0% (in %)	18.176	18.176	18.176	18.176	18.176	18.176
Target availability - AC System (in %)	98.00	98.00	98.00	98.00	98.00	98.00
Target availability - HVDC System (in %)	96.00	96.00	96.00	96.00	96.00	96.00
<b>Norms for sub-station Bays (Rs Lakh per bay)</b>						
765 kV	51.68	41.34	43.51	45.79	48.20	50.73
400 kV	36.91	29.53	31.08	32.71	34.43	36.23
220 kV	25.84	20.67	21.75	22.90	24.10	25.36
132 kV and below	18.46	15.78	16.61	17.48	18.40	19.35
<b>Norms for Transformers (Rs Lakh per MVA)</b>						
765 kV	0.564	0.262	0.276	0.29	0.305	0.322
400 kV	0.411	0.262	0.276	0.29	0.305	0.322
220 kV	0.282	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.282	0.262	0.276	0.29	0.305	0.322
<b>Norms for Reactor (Rs Lakh per MVAR)</b>						
765 kV	0.00	0.262	0.276	0.29	0.305	0.322
400 kV	0.00	0.262	0.276	0.29	0.305	0.322



220 kV	0.00	0.262	0.276	0.29	0.305	0.322
132 kV and below	0.00	0.262	0.276	0.29	0.305	0.322
<b>Norms for AC and HVDC lines (Rs Lakh per km)</b>						
Single Circuit (Bundled Conductor with six or more sub-conductors)	1.011	0.861	0.906	0.953	1.003	1.056
Single Circuit (Bundled conductor with four sub-conductors)	0.867	0.738	0.776	0.817	0.86	0.905
Single Circuit (Twin & Triple Conductor)	0.578	0.492	0.518	0.545	0.573	0.603
Single Circuit (Single Conductor)	0.289	0.246	0.259	0.272	0.287	0.302
Double Circuit (Bundled conductor with four or more sub-conductors)	1.517	1.291	1.359	1.43	1.506	1.585
Double Circuit (Twin & Triple Conductor)	1.011	0.861	0.906	0.953	1.003	1.056
Double Circuit (Single Conductor)	0.433	0.369	0.388	0.409	0.43	0.453
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.662	2.266	2.385	2.51	2.642	2.781
Multi Circuit (Twin & Triple Conductor)	1.773	1.509	1.588	1.671	1.759	1.851
<b>Norms for HVDC stations (Rs Lakh/MW)</b>						
HVDC bipole scheme (Rs Lakh/MW)	0.00	1.04	1.10	1.16	1.22	1.28
HVDC Back-to-Back stations (Rs Lakh/MW) (Except Gazuwaka BTB)	0.00	2.07	2.18	2.30	2.42	2.55
Gazuwaka HVDC Back-to-Back station (Rs Lakh/MW)	0.00	1.83	1.92	2.03	2.13	2.24



**Financial Package upto COD**

Form No. -6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOCOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	Financial Package as Approved		Financial Package as on COD 01/04/2024		As Admitted on COD 01/04/2024	
	Currency	Amount	Currency	Amount	Currency	Amount
Loans		0.00		0.00		0.00
Loan-Domestic		0.00		0.00		0.00
Loan-Foreign		0.00		0.00		0.00
Total Loans	INR	0.00		0.00	INR	2,640.07
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	0.00		0.00	INR	619.44
Total Equity	INR	0.00		0.00	INR	619.44
Debt Equity Ratio						81:19
Total Cost	INR	0.00		0.00	INR	3,259.51

Particulars	Debt	Equity	Total
Addcap for 2024 - 2025			0.00
Addcap for 2025 - 2026			0.00
Addcap for 2026 - 2027			0.00
Addcap for 2027 - 2028			0.00





Addcap for 2028 - 2029			0.00	
------------------------	--	--	------	--

Particulars	Actual	Normative	
<b>Addcap for 2024 - 2025</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2025 - 2026</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2026 - 2027</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2027 - 2028</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Addcap for 2028 - 2029</b>			
Equity		0.00	
Debt		0.00	
Total		0.00	
<b>Total Capital cost with Addcap</b>		3,259.51	



**Calculation of ROE**

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the year	365.00	365.00	365.00	366.00	365.00
No. of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
Opening Normative Equity	619.44	619.44	619.44	619.44	619.44
Less: Adjustment in Equity*	0.00	0.00	0.00	0.00	0.00
Adjustment during the year	0.00	0.00	0.00	0.00	0.00
Net opening equity (Normal)	619.44	619.44	619.44	619.44	619.44
Add: Increase in Equity due to addition during the year / period	0.00	0.00	0.00	0.00	0.00
Less: Decrease due to de-capitalisation during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Increase due to discharge during the year / period	0.00	0.00	0.00	0.00	0.00
Closing Normative Equity	619.44	619.44	619.44	619.44	619.44
Average Normative Equity	619.44	619.44	619.44	619.44	619.44
Rate of return on Equity (%)	18.782	18.782	18.782	18.782	18.782
Reduced rate of 1% decided by commission under Regulation 30(2) (if any)	0.00	0.00	0.00	0.00	0.00
Effective rate of ROE	15.50	15.50	15.50	15.50	15.50
MAT/Corporate Rate	17.472	17.472	17.472	17.472	17.472
Grossed up rate of ROE	18.782	18.782	18.782	18.782	18.782
Pro rata return on Equity	116.34	116.34	116.34	116.34	116.34
Return on Equity	116.34	116.34	116.34	116.34	116.34



**Calculation of WAR of interest on actual loan**

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
<b>BOND X -DOCO</b>					
Gross Loan- Opening	415.00	415.00	415.00	415.00	415.00
Cumulative repayments of Loans upto previous year	415.00	415.00	415.00	415.00	415.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	10.90	10.90	10.90	10.90	10.90
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XI-OPTION- I -DOCO</b>					
Gross Loan- Opening	443.00	443.00	443.00	443.00	443.00
Cumulative repayments of Loans upto previous year	443.00	443.00	443.00	443.00	443.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00



107

Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.80	9.80	9.80	9.80	9.80
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>BOND XII -DOCO</b>					
Gross Loan- Opening	1,281.00	1,281.00	1,281.00	1,281.00	1,281.00
Cumulative repayments of Loans upto previous year	1,281.00	1,281.00	1,281.00	1,281.00	1,281.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.70	9.70	9.70	9.70	9.70
Interest on loan	0.00	0.00	0.00	0.00	0.00

<b>ORIENTAL BANK OF COMMERCE -DOCO</b>					
Gross Loan- Opening	204.00	204.00	204.00	204.00	204.00
Cumulative repayments of Loans upto previous year	204.00	204.00	204.00	204.00	204.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.10	9.10	9.10	9.10	9.10
Interest on loan	0.00	0.00	0.00	0.00	0.00



<b>PUNJAB NATIONAL BANK- II -DOCO</b>					
Gross Loan- Opening	245.00	245.00	245.00	245.00	245.00
Cumulative repayments of Loans upto previous year	245.00	245.00	245.00	245.00	245.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	8.60	8.60	8.60	8.60	8.60
Interest on loan	0.00	0.00	0.00	0.00	0.00

### Summary

Gross Loan- Opening	2,588.00	2,588.00	2,588.00	2,588.00	2,588.00
Cumulative repayments of Loans upto previous year	2,588.00	2,588.00	2,588.00	2,588.00	2,588.00
Net loan-Opening	0.00	0.00	0.00	0.00	0.00
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	0.00	0.00	0.00
Net Loan-Closing	0.00	0.00	0.00	0.00	0.00
Average Net Loan	0.00	0.00	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	9.7258	9.7258	9.7258	9.7258	9.7258
Interest on loan	0.00	0.00	0.00	0.00	0.00



**Calculation of interest on Normative loan**

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No. of Days in the Year	365.00	365.00	365.00	366.00	365.00
No. of days for which Tariff claimed	365.00	365.00	365.00	366.00	365.00
Gross normative loan-Opening	2,640.07	2,640.07	2,640.07	2,640.07	2,640.07
Cumulative repayments of Normative loan upto previous year	2,471.35	2,509.88	2,548.38	2,586.91	2,625.41
Net normative loan-Opening	168.72	130.19	91.69	53.16	14.66
Addition in normative loan towards the ACE	0.00	0.00	0.00	0.00	0.00
Adjustment of normative gross loan pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Normative repayments of normative loan during the year	38.53	38.50	38.53	38.50	14.66
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	130.19	91.69	53.16	14.66	0.00
Average normative loan	149.46	110.94	72.43	33.91	7.33
Weighted Average Rate of interest on actual loan	9.7258	9.7258	9.7258	9.7258	9.7258
Interest on normative loan	14.54	10.79	7.04	3.30	0.71
Pro rata interest on normative loan	14.54	10.79	7.04	3.30	0.71

(Petitioner)



**Calculation of Depreciation Rate on Original Project Cost**

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOCO Date	Jul 1, 2003

(Amount in Rs. Lakh)

Name of Assets	Gross block at the beginning of the year	Add Cap during the year	Gross block at the end of the year	Average Gross Block	Depreciation Rate as per CERC's Depreciation Rate Schedule	Depreciation Amount for each year upto 31.03.2029
<b>2024-25</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.79
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	15.00	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.53</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.18208</b>	

<b>2025-26</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00



Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.78
Sub Station	970.65	0.00	970.65	970.65	5.28	11.50
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	15.00	1.22
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.50</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.181159</b>	

<b>2026-27</b>						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.79
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	15.00	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.53</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.18208</b>	





2027-28						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.78
Sub Station	970.65	0.00	970.65	970.65	5.28	11.50
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	15.00	1.22
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.50</b>
<b>Weighted Average Rate of Depreciation(%)</b>					<b>1.181159</b>	

2028-29						
Land(Freehold)	0.00	0.00	0.00	0.00	0.00	0.00
Civil & Building	0.00	0.00	0.00	0.00	3.34	0.00
Transmission Line	2,175.38	0.00	2,175.38	2,175.38	5.28	25.79
Sub Station	970.65	0.00	970.65	970.65	5.28	11.51
Comm. Sys. excluding Fiber Optic	113.48	0.00	113.48	113.48	15.00	1.23
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	0.00	0.00	0.00	0.00	15.00	0.00
Batteries	0.00	0.00	0.00	0.00	9.50	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	6.33	0.00
<b>TOTAL</b>	<b>3,259.51</b>	<b>0.00</b>	<b>3,259.51</b>	<b>3,259.51</b>	<b>0.00</b>	<b>38.53</b>



Weighted Average Rate of Depreciation(%)					1.18208	
--	--	--	--	--	---------	--

(Petitioner)



**Statement of Depreciation**

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOC Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
<b>Life at the beginning of the year</b>					
1.1 Weighted Average useful life of the Asset/ Project	32.00	32.00	32.00	32.00	32.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	20.00	21.00	22.00	23.00	24.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	12.00	11.00	10.00	9.00	8.00
<b>Capital Base</b>					
1.4 Opening capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.5 Additional Capital Expenditure dr. the year	0.00	0.00	0.00	0.00	0.00
1.6 De-Capitalisation During the year	0.00	0.00	0.00	0.00	0.00
1.7 Closing capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.8 Average capital cost	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.9 Freehold land included in 1.8	0.00	0.00	0.00	0.00	0.00
1.10 Asset having NIL salvage value included in 1.8	0.00	0.00	0.00	0.00	0.00
1.11 Asset having 10% salvage value included in 1.8	3,259.51	3,259.51	3,259.51	3,259.51	3,259.51
1.12 Depreciable Value(1.10+90% of 1.11)	2,933.56	2,933.56	2,933.56	2,933.56	2,933.56
<b>Depreciation for the period and Cum. Depreciation</b>					
1.13 Weighted Average Rate of depreciation	1.18208	1.181159	1.18208	1.181159	1.18208



1.14 Depreciation(for the period)	38.53	38.50	38.53	38.50	38.53
1.15 Depreciation(Annualised)	38.53	38.50	38.53	38.50	38.53
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	2,471.38	2,509.91	2,548.41	2,586.94	2,625.44
1.17 Less:Adj of Cum. Dep pertaining to decapitalised Asset	0.00	0.00	0.00	0.00	0.00
1.18 Cumulative depreciation at the end of the period	2,509.91	2,548.41	2,586.94	2,625.44	2,663.97

(Petitioner)



**Calculation of interest on working Capital**

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	AGRA (POWERGRID) - AGRA (UPPCL)		
Element Description	400 KV D/C AGRA (POWERGRID)-AGRA (UPPCL)		
Region	Northern Region	DOCO Date	Jul 1, 2003

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
No of Days in the year	365.00	365.00	365.00	366.00	365.00
No of days for which tariff claimed	365.00	365.00	365.00	366.00	365.00
O&M Expenses-one month	11.99	12.62	13.28	13.98	14.72
Maintenance spares 15% of O&M Expenses	21.59	22.72	23.91	25.17	26.49
Receivables equivalent to 45 days of AFC	39.71	40.20	40.76	41.25	42.17
Total Working capital	73.29	75.54	77.95	80.40	83.38
Bank Rate as on 01.04.2019 or as on 01st April of the COD year, whichever is later.	11.90	11.90	11.90	11.90	11.90
Interest on working capital	8.72	8.99	9.28	9.57	9.92
Pro rata interest on working capital	8.72	8.99	9.28	9.57	9.92

(Petitioner)



Page-4

Summary of issue involved in the petition		PART-III FORM- 15
1. Name of the Petitioner	Powergrid Corporation of India Ltd	
2. Petition Category	Transmission	
3. Tariff Period	2024-29	
4. Name of the Project	Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region	
5. Investment Approval date		
6. SCOD of the Project		
7. Actual COD of the project	01.07.2003	
8. Whether entire scope is covered in the present petition.	Yes	
9. No. of Assets covered in instant petition	1	
10. No. of Assets having time over run		
11. Estimated Project Cost as per IA	Rs. 4178.00 Lakhs	
12. Is there any REC? if so, provide the date		
13. Revised Estimated Project Cost (if any)		
14. Completion cost for all the assets covered in the instant petition.	Rs. 3259.51 Lakhs	
15. No. of Assets covered in instant petition and having cost overrun.	NIL	
16	Prayer in brief	
17	Key details and any Specific issue involved: 1) There is No add-cap in 2019-24 and 2024-29	
18	Respondents	
	Name of Respondents	
1	AJMER VIDYUT VITRAN NIGAM LTD	
2	JAIPUR VIDYUT VITRAN NIGAM LTD	
3	JODHPUR VIDYUT VITRAN NIGAM LTD	
4	HIMACHAL PRADESH STATE ELECTRICITY BOARD	
5	PUNJAB STATE POWER CORPORATION LIMITED	
6	HARYANA POWER PURCHASE CENTRE	
7	POWER DEVELOPMENT DEPTT	
8	UTTAR PRADESH POWER CORPORATION LTD.	
9	BSES YAMUNA POWER Ltd	
10	BSES RAJDHANI POWER Ltd	
11	TATA POWER DELHI DISTRIBUTION LTD	
12	CHANDIGARH ADMINISTRATION	
13	UTTARAKHAND POWER CORPORATION LTD	
14	NORTH CENTRAL RAILWAY	
15	NEW DELHI MUNICIPAL COUNCIL	

(Petitioner)



## Summary of Capital Cost &amp; Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.

Name of the Petitioner	Powergrid Corporation of India Ltd	
Tariff Period	2024-29	
Name of the Transmission Project	Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region	
COD of the Project (if entire scope of project is completed)	01.07.2003	

Rupees in lakh

## A) Summary of Capital Cost as on COD and Additional Capital Expenditure claimed for all the assets Covered in the instant petition.

S. No.	Asset No.	COD	Cut-off Date	ii) Summary of Actual / Projected Capital Cost												Completion Cost	
				i) Apportioned Approved Cost													Capital Cost as on 31.03.2029
				As per Investment approval	As per RCE	As on COD	2024-25	2025-26	2026-27	2027-28	2028-29	2028-29	2028-29	2028-29			
1	Asset-1	01.07.2003	31.03.2007	4178.00	4	5	6	7	8	9	10	11	12	3259.51			
<b>Total Capital Cost Claimed</b>				4178.00		3259.51	-	0	0	0	0	0	0	3259.51			

## B) Summary of Annual Fixed Cost (AFC) claimed for all the assets covered in the instant petition.

S. No.	Asset No.	Asset Name and its location	2024-25	2025-26	2026-27	2027-28	2028-29
1	Asset-1	Agra (POWERGRID)-Agra (UPPCL) 400 kV D/C Interconnection in Northern Region	322.06	326.10	330.60	335.50	342.08
<b>Total AFC for all the Assets</b>			322.06	326.10	330.60	335.50	342.08

Note: 1) The purpose of this form is to summarise the Capital cost &amp; AFC claimed for all the assets covered in the instant petition.

(Petitioner)



**Checklist of Forms and other information/ documents for tariff filing for  
Transmission System & Communication System**

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	NA
FORM-2	Details of Transmission Lines and Substations and Communication System covered in the project scope and O&M for instant asset	✓
FORM-3	Normative parameters considered for tariff computations	✓
FORM- 4	Abstract of existing transmission assets/elements under project, Determination of Effective COD and Weighted Average Life for single AFC for the project as whole.	NA
FORM- 4A	Statement of Capital cost	NA
FORM- 4B	Statement of Capital Works in Progress	NA
FORM- 4C	Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Project/ Element	NA
FORM-5	Element wise Break-up of Project/ Asset/Element Cost for Transmission System or Communication System	NA
FORM-5A	Break-up of Construction/Supply/Service packages	NA
FORM-5B	Details of all the assets covered in the project	NA
FORM- 6	Actual Cash Expenditure and Financial Package up to COD	✓
FORM- 7	Statement of Additional Capitalisation after COD	NA
FORM- 7A	Financing of Additional Capitalisation	NA
FORM- 7B	Statement of Additional Capitalisation during five year before the end of the useful life of the project.	NA
FORM- 8	Calculation of Return on Equity	✓
FORM-8A	Details of Foreign Equity	NA
FORM-9	Details of Allocation of corporate loans to various transmission elements	NA
FORM-9A	Details of Project Specific Loans	NA
FORM-9B	Details of Foreign loans	NA
FORM-9C	Calculation of Weighted Average Rate of Interest on Actual Loans	NA
FORM-9D	Loans in Foreign Currency	NA
FORM-9E	Calculation of Interest on Normative Loan	✓
FORM- 10	Calculation of Depreciation Rate on original project cost	✓
FORM- 10A	Statement of Depreciation	✓
FORM- 10B	Statement of De-capitalisation	NA
FORM- 11	Calculation of Interest on Working Capital	NA
FORM- 12	Details of time over run	NA
FORM- 12A	Incidental Expenditure during Construction	NA
FORM- 12B	Calculation of IDC & Financing Charges	NA
FORM- 13	Details of Initial spares	NA
FORM- 14	Non-Tariff Income	NA
FORM- 15	Summary of issue involved in the petition	✓
FORM A	Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.	✓





Other Information/ Documents		
S. No.	Information/Document	Tick
1	Certificate of incorporation, Certificate for Commencement of Business, Memorandum of Association, & Articles of Association (For New Project(s) setup by a company making tariff application for the first time to CERC)	NA
2	Region wise and Corporate audited Balance Sheet and Profit & Loss Accounts with all the Schedules & Annexure for the new Transmission System & Communication System for the relevant years.	NA
3	Copies of relevant loan Agreements	NA
4	Copies of the approval of Competent Authority for the Capital Cost and Financial package.	Yes
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	NA
6	Copies of the BFTA/TSA/PPA with the beneficiaries, if any	NA
7	Detailed note giving reasons of cost and time over run, if applicable. List of supporting documents to be submitted: a. Detailed Project Report b. CPM Analysis c. PERT Chart and Bar Chart d. Justification for cost and time Overrun	Yes
8	Transmission Licensee shall submit copy of Cost Audit Report along with cost accounting records, cost details, statements, schedules etc. for the transmission system as submitted to the Govt. of India for first two years i.e. 2019-20 and 2020-21 at the time of mid-term true-up in 2021-22 and for balance period of tariff period 2019-24 at the time of final true-up in 2024-25. In case of initial tariff filing the latest available Cost Audit Report should be furnished.	NA
9.	BBMB is maintaining the records as per the relevant applicable Acts. Formats specified herein may not be suitable to the available information with BBMB. BBMB may modify formats suitably as per available information to them for submission of required information for tariff purpose.	NA
10.	Any other relevant information, (Please specify)	NA

Note 1: Electronic copy of the petition (in words format) and detailed calculation as per these formats (in excel format) and any other information submitted has to be uploaded in the e-filing website and shall also be furnished in pen drive/flash drive.

