

BEFORE
THE CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. ___/TT/2024

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 **combined asset of System Strengthening Scheme – XXIX in the Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under 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, Gurugram-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

--- RESPONDENT(S)

Shakti Bhawan, 14, Ashok Marg
Lucknow - 226 001

Represented by its Chairman

And others

FILED BY
POWER GRID CORPORATION OF INDIA LTD.

Place: Gurugram

DATED: 19 .08.2024

REPRESENTED BY


S. General Manager (Regulatory Cell)



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THE CENTRAL ELECTRICITY REGULATORY COMMISSION
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INDEX

Sl. No.	Description	Enclosure No.	Page No.
	Cover Page	-	1
1	Index	-	2-3
2	Letter for registration	-	4-5
3	Memo of Parties	-	6-8
4	Memo of appearance		9-10
5	Petition for truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block	-	11-26
6	Supporting affidavit		27-28



7	Power of attorney	-	29
ANNEXURES:			
7	CERC order dated 13.12.2021 in petition no.15/TT/2021.	Encl -1	30-79
8	Auditor Certificate	Encl -2	80-83
9	Liability flow statement	Encl -3	84-85
10	Spares discharge statement	Encl -4	86-
11	True up Tariff forms for 2019-24 block	Encl -5	87-127
12	Tariff forms for 2024-29 block	Encl -6	128-165
13	Checklist	Encl -7	166-167

FILED BY
POWER GRID CORPORATION OF INDIA LTD.

Place: Gurugram

DATED: 19.08.2024

REPRESENTED BY


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



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Uttar Pradesh Power Corporation Ltd.

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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 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 be registered and taken on record by the Hon'ble Commission.

Place: Gurugram

FILED BY

**DATED: 19.08.2024
LTD.**

POWER GRID CORPORATION OF INDIA

REPRESENTED BY



V.C.Sekhar

Sr.General Manager (Regulatory Cell)



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Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

Represented by its Chairman

And others

MEMO OF PARTIES

Power Grid Corporation of India Ltd.

---PETITIONER

VERSUS

Northern Region

--- RESPONDENT(S)



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
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 Distribution Engineer
15. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002
Represented By Chairman

PETITIONER
POWER GRID CORPORATION OF INDIA LTD.
REPRESENTED BY

PLACE: Gurugram

DATED: 19 .08.2024

Sr.General Manager (Regulatory Cell)



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Lucknow - 226 001

Represented by its Chairman

And others

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. **Shri V.C.Sekhar, Sr. GM (Regulatory Cell), 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 19th date of August 2024.

PETITIONER
POWER GRID CORPORATION OF INDIA LTD.

Place: Gurugram

DATED: 19.08.2024


V.C. Sekhar

Sr.General Manager (Regulatory Cell)



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Represented by its Chairman

And others

A. Executive Summary of the Petition:

1. Brief Background of the Petitioner

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 a 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 from time to time in exercise of its powers under Section 178 of the Electricity Act, 2003.

2. 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 Customers (hereinafter referred to as 'DICs') from Northern Region in terms of the 2020 Sharing Regulations.

3. Background of Transmission Assets:

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 the following assets which have been implemented under Northern Region as per following:

Asset No	Asset Name	DOCO	Remarks
Combined Asset	Asset-I: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 400 kV Line Bays at Jalandhar Substation	11.12.2016	Effective COD: 26.01.2018
	Asset-II: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 50 MVAR Line Reactor at Samba Sub-station	26.08.2018	

4. Summary of Claims:

POWERGRID is seeking truing up of transmission tariff for 2019-24 and determination of transmission tariff for 2024-29 tariff block for aforesaid transmission assets on capital cost comprising of expenditure incurred/admitted upto 31.03.2019/DOCO and additional capital expenditure during 2019-24 & 2024-29 tariff blocks 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").



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

Rs in lakhs

Asset No.	Approved Cost as per FR	Expenditure Up to DOCO /31.03.2019	Expenditure during 2019-24 tariff block					Capital Cost as on 31.03.2024
			2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	5740	4487.22	320.70	38.41	0	0	0	4846.33

Rs in lakhs

Asset No.	Approved Cost as per FR	Expenditure Up to 31.03.2024	Estimated expenditure during 2024-29 tariff block					Estimated completion Cost as on 31.03.2029
			2024-25	2025-26	2026-27	2027-28	2028-29	
Combined Asset	5740	4846.33	0	0	0	0	0	4846.33

6. Details of tariff claimed are as under:

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

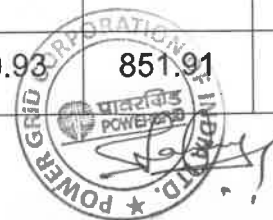
Rs in Lakhs

Name of the asset	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	AFC approved	961.02	980.19	966.11	953.55	939.89
	Revised AFC based on true up	950.71	956.31	944.24	936.85	932.89

Tariff claimed for 2024-29 tariff block:

Rs in Lakhs

Name of the asset	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset	920.30	903.29	889.93	851.91	827.42



7. 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:

- (i) Issue wise submission(s) with regards to expenditure claimed along with justification:

8. The Petitioner herein, Power Grid Corporation of India Ltd ('POWERGRID') is a Government Company within the meaning of the Companies Act, 2013. POWERGRID is a deemed transmission licensee under Section 14 of the Electricity Act, 2003.

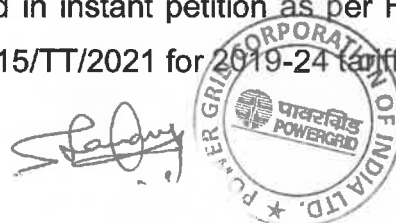
9. POWERGRID being transmission licensee is required to inter-alia build, own, operate and maintain an efficient, coordinated and economical interstate transmission system (ISTS). The tariff for the said transmission systems shall be determined by the Hon'ble Central Commission in accordance with the provisions of Tariff Regulations, 2019 and Tariff Regulations, 2024.

10. That the subject project/petition covers true up/approval of transmission tariff for following Asset:

Asset No	Asset Name	DOCO	Remarks
Combined Asset	Asset-I: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 400 kV Line Bays at Jalandhar Substation	11.12.2016	Earlier covered under petition no.15/TT/2021 now covered under instant petition.
	Asset-II: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 50 MVAR Line Reactor at Samba Sub-station	26.08.2018	Effective COD:26.01.2018

11. Cost detail:

The details of admitted cost for the assets covered in instant petition as per Hon'ble Commission order dated 13.12.2021 in petition no. 15/TT/2021 for 2019-24 tariff block, and claimed cost now is given hereunder:



For Combined Asset:

Rs in lakhs

Cost allowed as per order in petition no.15/TT/2021							
Apportioned cost	Capital cost	Add -Cap 2019-24					Capital cost as on
As per FR	as on DOCO/ 31.03.2019	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24	31.03.2024
5740	4487.22	410.28	0	0	0	0	4897.50
Cost claimed in the instant petition							
5740	4487.22	320.70	38.41	0	0	0	4846.33
Variation & its reason thereof	0	-89.58	38.41	0	0	0	-51.77

Capital cost details for 2024-29 tariff block:

Rs in Lakhs

Asset Details	Apportioned cost	Expenditure as on 31.03.2024	Actual/Projected Add Cap 2024-29 as per auditor's certificate					Estimated completion cost as on 31.03.2029
	As per FR		2024- 25	2025- 26	2026- 27	2027- 28	2028- 29	
Combined Asset	5740	4846.33	0	0	0	0	0	4846.33

Copy of order dated 13.12.2021 in petition no.15/TT/2021 is enclosed at **Encl-1** and auditor certificate w.r.t. claimed cost in the instant petition is enclosed at **Encl-2**.

12. Additional capitalization claims under Regulation:

Sl No.	Asset	DOCO date	Cutoff date
1.	Asset-1	11.12.2016	31.03.2019
2.	Asset-2	26.08.2018	31.03.2021

Add cap for 2019-24 block:

Asset	Add cap details (Rs. Lakhs)				
	2019-20	2020-21	2021-22	2022-23	2023-24



Combined Asset	320.70	38.41	0	0	0
	24(1)(a) & 25(1)(d)	24(1)(a)	-	-	-

Add cap for 2024-29 block:

Asset	Add cap detail (Rs. Lakhs)				
	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset	No Add Cap				

Detailed reasons for cost variation (Add-Cap admitted cost Vs now claimed cost):

It is submitted that the additional capitalization claimed for the Asset is within the original scope of the work. As on date there is nil 'previously recognized liabilities' to be discharged beyond 2024-29 tariff period.

The additional capital expenditure claimed in the 2019-24 period is on account of undischarged liability towards final payment/withheld payment due to contractual exigencies and for works executed within cut-off date and is to be dealt in accordance with clause 24(1)(a) & 25(1)(d) of 2019 Tariff Regulations. The details of additional capitalization for instant assets are given in Form-7. Hon'ble Commission is requested to allow the same. A liability flow statement having Package/ Contractor wise detail is enclosed at **Encl-3**.

13. Initial spares:

Detailed calculation of Initial Spares, at project level as per Regulation 13 of Tariff Regulations, 2014 is tabulated below: -

Rs. In lakhs

Assets	Particulars	Cost for Spare Calculation (A)	Initial Spares Claimed (B)	Ceiling Limit (%) (C)	Initial Spares Worked out	Excess initial spares
					$D = [(A-B)*C/(100-C)]$	[B-D]
Asset-1	Substation (Brown Field)	1585.89	39.51	6.0	98.71	0
Asset-2	Substation (Brown Field)	2981.24	64.81	6.0	186.16	0



It is submitted that the initial spares for the instant project is within the specified limit under Regulation 13 of the Tariff Regulations, 2014. Therefore, it is prayed to this Hon'ble Central Commission to allow the initial spares as claimed in the present petition.

It is further mentioned that expenditure on initial spares included in the auditor certificate as per actual cash expenditure incurred (means the initial spares discharged upto DOCO included in the DOCO cost of auditor certificate and discharged after DOCO has included in the respective year additional capital expenditure in the auditor certificate). Discharge of initial spares as included in the auditor certificate is given below. Since the expenditure on initial spares are included in the auditor certificate as per cash outflow. Statement of Discharge of spares is enclosed at **Encl-4**. It is requested to Hon'ble Commission allow the same as claimed in the petition.

Rs in Lakhs

Asset	Total spares Claimed	Expenditure on initial Spares Upto 31.03.2019	Expenditure on initial spares in 19-20 (Add Cap)
Asset-1 (S/s-Brown Field)	39.51	39.51	0
Asset-2 (S/s-Brown Field)	64.81	50.67	14.14

14. Capital cost claimed for tariff purpose for 2019-24 and 2024-29 block:

Sl.No	Expenditure	Substation	OPGW	Communication	I.T. Equipment	Total
1	Expenditure up to 31.03.2019 as per Auditor Certificate	4145.39	0.00	299.00	48.43	4492.82
2	Less: Accrual IDC upto DOCO	5.17	0.00	0.37	0.06	5.60
4	Capital cost admitted vide order dated 13.12.2021 as on 31.03.2019	4140.22	0.00	298.63	48.37	4487.22
5	Expenditure for FY 2019-20 as per auditor certificate	293.97	0.00	21.13	0.00	315.10



6	Add: Accrual IDC Discharge in 2019-20	5.17	0.00	0.37	0.06	5.60
7	Expenditure during 2019-20	299.14	0.00	21.50	0.06	320.70
8	Expenditure during 2020-21	38.41	0.00	0.00	0.00	38.41
9	Expenditure during 2021-22	0.00	0.00	0.00	0.00	0.00
10	Expenditure during 2022-23	0.00	0.00	0.00	0.00	0.00
11	Expenditure during 2023-24	0.00	0.00	0.00	0.00	0.00
12	Total Completion Cost	4477.77	0.00	320.13	48.43	4846.33

15. 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 Regulations, 2019.

Regulation 13 of Tariff Regulations, 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 Regulations, 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 Returns 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 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 actual additional capitalization during 2019-24 tariff block, change in MAT rate as well as actual floating rate of interest during 2019-24.

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

Rs in Lakh

Project	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Combin ed Asset	AFC approved	961.02	980.19	966.11	953.55	939.89
	Revised AFC based on truing up	950.71	956.31	944.24	936.85	932.89



Tariff filing formats along with the other relevant information and supporting documents are attached hereto as **Encl-5**.

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.

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

Rs in Lakh

Project	Particular	2024-25	2025-26	2026-27	2027-28	2028-29
Combined Asset	AFC	920.30	903.29	889.93	851.91	827.42

Tariff filing formats along with the other relevant information and supporting documents are attached hereto as **Encl-6**.

18. The Combined asset will complete 12 years of life in 2029-30 and thus depreciation till 2024-29 has been calculated based on the straight-line method and at rate specified in Appendix-I as per clause 33 (5) of the CERC Tariff regulations 2024. The details have been computed and are provided in Form- 10 A.
19. 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 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.

20. 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 16 & 17 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.
21. 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. These documents/details are also available on our website www.powergrid.in

22. The transmission charges at para 16 & 17 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.

23. 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 Regulation 35 (3) (C) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and recovery of security expenses from 01.04.2024 to 31.03.2029 under Regulation 36 (3) (d) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024.

Insurance:

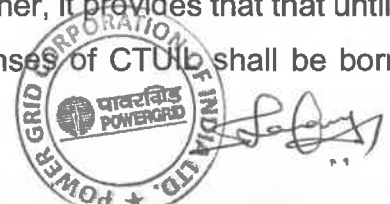
In this regard, it is submitted that a separate petition shall be filed before Hon'ble Commission for claiming the overall Insurance Expenses and consequential Interest on Working Capital (IOWC) on the same considering actual Insurance Expense incurred by the Petitioner for the F/Y 2023-24 after escalating 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 Regulations, 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 actuals through a separate petition.

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

24. 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 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.

25. 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) & 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.
26. The Transmission Charges and other related Charges indicated at para 16 & 17 above, is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess, filing fees, license fee, RLDC fees and charges, capital spares, security expenses, insurance expenses 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.
27. **Sharing of Transmission Charges**
Truing up tariff for Transmission of Electricity (Annual Fixed Cost) for 2019-24 as per para 16 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 Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, as amended from to time for the applicable periods.



Tariff for Transmission of Electricity (Annual Fixed Cost) for 2024-29 as per para 17 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.

28. 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.-7 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 assets covered under this petition, as per para 16 and 17 above.
- b) Admit the capital cost claimed and additional capitalization incurred during 2019-24.
- c) 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 16 and 17 above for respective block.
- d) 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.
- e) 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.



- f) 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.
- g) 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 22 above.
- h) 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 22 above.
- i) 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 22 above.
- j) Allow the petitioner to claim expenses of CTUIL borne by POWERGRID through a separate petition as mentioned at para 23 above.
- k) 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 pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.

FILED BY

Place: Gurugram

POWER GRID CORPORATION OF INDIA LTD.

DATED: 19.08.2024

REPRESENTED BY


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



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

PETITION NO.: /TT/2024.

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 **combined asset of System Strengthening Scheme – XXIX in the Northern Region** under Section 62 read with Section 79 (1) (d) of the Electricity Act, 2003 and under 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, Gurugram-122 001 (Haryana).

Uttar Pradesh Power Corporation Ltd.

---- RESPONDENT(S)

Shakti Bhawan, 14, Ashok Marg

Lucknow - 226 001

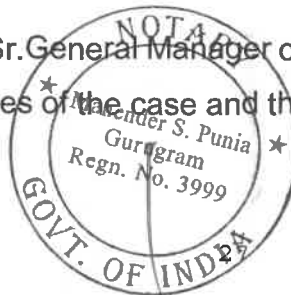
Represented by its Chairman

And others

AFFIDAVIT VERIFYING THE PETITION

I, V.C. Sekhar, S/o Late Sh. V.Devaiah, working as Sr.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 Sr.General Manager of Petitioner and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.



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



2. That the accompanying Petition under Section 62 of the Electricity Act, 2003, has been filed by my authorised 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 28 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 28 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 Gurugram on this 19 day of August 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
28



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
केन्द्रीय वाणिज्यिक विभाग

Ref: CC/Commercial/2022

Date:-13.12.2022

LETTER OF AUTHORIZATION

Pursuant to the POWER OF ATTORNEY dated 08.12.2022 and in supersession of the letters of authorization dated 19.07.2022, I hereby authorize the following Executives to sign on Vakalatnama, Affidavits and to appear and conduct case proceedings on behalf of the company before CERC, SERC, APTEL, High Courts and Supreme Court.

1. Sh. Zafrul Hasan, Sr. DGM (Commercial)
2. Sh. V.C Sekhar, GM (Regulatory Cell)
3. Sh. Bipin Bihari Rath, Sr.GM (Commercial)
4. Sh. Mohd Mohsin, Sr. GM (Commercial)
5. Sh. V. Srinivas, CGM (Commercial - BCD)
6. Sh. S.S Raju, CGM (Commercial)

Mukesh Khanna
13/12/22

Mukesh Khanna
ED (Commercial &RC)



**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 15/TT/2021

Coram:

**Shri P. K. Pujari, Chairperson
Shri Arun Goyal, Member
Shri P. K. Singh, Member**

Date of order: 13.12.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of transmission tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Asset-1: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 400 kV Line Bays at Jalandhar Sub-station and Asset-2: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 50 MVAR Line Reactor at Samba Sub-station under Northern Region System Strengthening Scheme – XXIX in the Northern Region.

And in the matter of:

Power Grid Corporation of India Limited,
SAUDAMINI, Plot No-2, Sector-29,
Gurgaon-122 001 (Haryana).

.....Petitioner

Vs

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

ATTESTED TRUE COPY

Page no. 30-79
Authorised Signatory
Power Grid Corporation of India Ltd.
Plot No. 2, Sector-29, Gurgaon-122001 (HARYANA)



3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur – 302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur – 302017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla – 171004.
6. Punjab State Electricity Board,
The Mall,
Patiala – 147001
7. Haryana Power Purchase Centre, 2nd Floor,
Shakti Bhawan, Sector-6,
Panchkula (Haryana) – 134109.
8. Power Development Department,
Govt. of Jammu & Kashmir,
Mini Secretariat,
Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226001.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi – 110002.
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.
13. Tata Power Delhi Distribution Limited,
33 kV Sub-station Building,
Hudson Lane, Kingsway Camp,
North Delhi – 110009



14. Chandigarh Administration,
Sector-9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
16. Northern Central Railway,
Allahabad.
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi – 110002.
18. The Sterlite Company,
F-1, The Mira Corporate Suits,
I & 2 Ishwar Nagar, Mathura Road,
New Delhi 110065.

...Respondent(s)

For Petitioner: Shri S. S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri V.P. Rastogi, PGCIL
Shri A. K. Verma, PGCIL

For Respondents: Shri Neeraj Kumar Verma, NTL
Shri Vijayanand Semletty, NTL

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of transmission tariff of the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of the 2019-24 tariff period in respect of the following transmission assets associated with Northern Region System Strengthening



Scheme – XXIX (hereinafter referred to as “the transmission project”) in the Northern Region:

Asset-1: 2 numbers 400 kV Line Bays at Samba Sub-station & 2 Numbers 400 kV Line Bays at Jalandhar Sub-station; and

Asset-2: 2 numbers 400 kV Line Bays at Samba Sub-station & 2 Numbers 50 MVAR Line Reactor at Samba Sub-station.

Asset-1 and Asset-2 have been collectively referred to as "transmission assets" for the 2014-19 period. Asset-1 and Asset-2 have been combined as on 1.4.2019 and have been collectively referred to as "Combined Asset" for the 2019-24 tariff period.

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

- “1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8 and 9 above.
- 2) 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 Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 above for respective block.
- 3) 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.
- 4) 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.
- 5) 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.
- 6) 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 9.10 above.
- 7) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 8) 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 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 follows:

a) The Investment Approval (IA) of the project was accorded by the Board of Directors of the Petitioner Company in the 324th meeting held on 12.1.2016 with an estimated cost of ₹5740 lakh including IDC of ₹307 lakh based on August 2015 price level (communicated vide Memorandum No. C/CP/NRSS-29 dated 14.1.2016).

b) The scope of the work as per IA is as follows:

Sub-station

- Jalandhar 400/220 kV Sub-station
400 kV Line bays: 2 numbers
- Samba 400/220 kV Sub-station
400 kV Line bays: 4 Numbers
2 numbers of 50 MVAR line reactors at Samba end of Samba-Amargarh 400 kV line

c) The complete scope of the work as per IA is covered in the instant petition. The dates of commercial operation and time over-run for the transmission assets covered in the instant petition are as follows:

Particulars	SCOD	COD	Time over-run
Asset-1	13.7.2017	11.12.2016	Nil
Asset-2	12.11.2018	26.8.2018	

d) The transmission tariff of the 2014-19 period in respect of Asset-1 and Asset-2 was allowed vide order dated 19.7.2018 in Petition No. 04/TT/2018 and order dated 14.4.2020 in Petition No. 32/TT/2019 respectively.



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

5. The Petitioner has served the petition on the Respondents and notice of this petition has 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. None of the respondents have filed reply in the matter.

6. The hearing in this matter was held on 31.8.2021 through video conference and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner *vide* affidavits dated 14.7.2020 and 9.7.2021.

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

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

9. The details of trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Depreciation	10.76	53.99	73.00
Interest on Loan	10.38	49.87	64.21
Return on Equity	11.52	57.32	78.06
Interest on Working Capital	78.30	266.04	274.84
O&M Expenses	4.81	17.43	19.07
Total	115.77	444.65	509.18



(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Depreciation	89.08
Interest on Loan	85.59
Return on Equity	97.37
O&M Expenses	82.08
Interest on Working Capital	9.74
Total	363.86

10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	21.46	22.17	22.90
Working Capital for Maintenance Spares (15% of O&M Expenses)	38.62	39.91	41.23
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	63.45	74.11	84.86
Total Working Capital	123.53	136.19	148.99
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	4.81	17.43	19.07

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Working Capital for O&M Expenses (O&M Expenses for 1 month)	11.45
Working Capital for Maintenance Spares (15% of O&M Expenses)	20.61
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	101.53
Total Working Capital	133.59
Rate of Interest (in %)	12.20
Interest on Working Capital	9.74



Order in Petition No. 15/TT/2021

36



Page 7 of 50

Capital Cost as on COD

11. The capital cost as on COD has been considered in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The Commission *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 allowed capital cost as on COD for Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 allowed capital cost as on COD for Asset-2. The details of the capital cost as allowed by the Commission in the aforesaid orders and the capital cost now claimed by the Petitioner in the instant petition is as follows:

(₹ in lakh)

Particulars	Apportioned approved cost as per FR	Capital Cost as on 1.4.2014 previously allowed by the Commission	Capital Cost as on COD claimed in the instant petition
Asset-1	2184.87	454.76	454.77
Asset-2	3555.09	2536.73	2534.97

Cost Over-run

12. The apportioned approved cost as per FR and the capital cost claimed by the Petitioner as on 31.3.2019 *vide* the Auditor's certificates are as follows:

(₹ in lakh)

Particulars	Apportioned approved Capital Cost (as per FR)	Capital Cost claimed (as on 31.3.2019)
Asset-1	2184.87	1521.76
Asset-2	3555.09	2971.06

13. The capital cost claimed as on 31.3.2019 in respect of Asset-1 and Asset-2 are within the apportioned approved capital cost as per FR. Therefore, there is no cost over-run.

Time Over-run

14. The details of the date of commercial operation and time over-run for the transmission assets covered in the instant petition are as follows:

Particulars	SCOD	COD	Time over-run
Asset-1	13.7.2017	11.12.2016	Nil
Asset-2	12.11.2018	26.8.2018	

15. Therefore, there is no time over-run in putting Asset-1 and Asset-2 into commercial operation.

Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)

16. The Petitioner has claimed IDC for the transmission asset and has submitted the statement showing IDC claim, discharge of IDC liability as on date of commercial operation and thereafter as under:

(₹ in lakh)

Particulars	IDC as per Auditor Certificate	IDC Discharge Claimed up to COD	Un-discharged IDC Claimed up to COD
Asset-1	4.91	0.00	4.91
Asset-2	136.67	91.22	45.45

17. The allowable IDC for Asset-1 and Asset-2 have been worked out considering the information submitted by the Petitioner. The loan details submitted in Form-9C for the 2014-19 period and date of drawl submitted in IDC statements have been considered for the purpose of calculating IDC for Asset-1 and Asset-2. Accordingly, IDC allowed is as follows:

(₹ in lakh)

set	IDC as per Auditor Certificate	IDC allowed	IDC allowed up to COD on cash basis	Un-discharged portion of IDC as on COD*	IDC Discharged in 2017-18	IDC Discharged in 2018-19	IDC Discharged in 2019-20
Asset-1	4.91	4.91	0.00	4.91	4.91	0.00	0.00
Asset-2	136.67	136.67	91.07	45.60	40.00	5.60	0.00

18. The Petitioner has claimed IEDC for the transmission asset as follows:



(₹ in lakh)

Particulars	IEDC claimed (as per Auditor Certificate)	IEDC discharged (up to COD)
Asset-1	11.53	11.53
Asset-2	126.08	126.08

19. There is no time over-run in putting Asset-1 and Asset-2 into commercial operation. Further, IEDC claimed as on date of commercial operation for Asset-1 and Asset-2 are within the percentage of hard cost as per the abstract cost estimate mentioned in IA. Hence, the entire amount of IEDC has been allowed for Asset-1 and Asset-2. Accordingly, IEDC details considered for the purpose of tariff calculation are as under:

(₹ in lakh)

Particulars	IEDC allowed (as on COD)
Asset-1	11.53
Asset-2	126.08

Initial Spares

20. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:

*"(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
Gas Insulated sub-station :5.00%
Communication System: 3.5%"*

21. The Initial Spares claimed by the Petitioner are as follows:

Asset	Plant and Machinery Cost	Initial Spares claimed by the Petitioner
	Sub-station & PLCC (₹ in lakh)	Sub-station & PLCC (₹ in lakh)
Asset-1	1585.89	39.51
Asset-2	3032.42	64.81



22. The Petitioner has further submitted that the discharge of Initial Spares has been considered on cash basis in the Auditor Certificates. The initial spares claimed by the Petitioner are within ceiling of 6% under brown-field sub-station. The Initial Spares allowed for Asset-1 and Asset-2 as per the 2014 Tariff Regulations are as follows:

(₹ in lakh)

Particulars	Capital Cost up to cut-off date (A)	Initial Spares claimed (B)	Ceiling limit (in %) (C)	Initial Spares worked out	Excess Initial Spares	Initial Spares allowed
				$D = [(A-B) \times C / (100-C)]$	$E = (D-B)$	
Sub-station (Brown Field)						
Asset-1	1585.89	39.51	6.00	98.71	Nil	39.51
Asset-2	3032.42	64.81		189.42		64.81

Additional Capital Expenditure (ACE)

23. The Commission *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 for Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 for Asset-2 had allowed ACE for the 2014-19 tariff period as follows:

Asset	ACE admitted (₹ in lakh)		
	2016-17	2017-18	2018-19
Asset-1	372.37	793.36	84.43
Asset-2			703.88

24. The Petitioner has claimed the following ACE based on actual expenditure:

Asset	ACE claimed (₹ in lakh)		
	2016-17	2017-18	2018-19
Asset-1	372.38	285.00	409.64
Asset-2			430.63

25. The Petitioner has submitted that ACE incurred during the 2014-19 period within the cut-off date is on account of un-discharged liabilities recognized to be payable at a future date under Regulation 14(1)(i) of the 2014 Tariff Regulations and



works deferred for execution under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

The break-up of ACE claimed by the Petitioner is as follows:

(₹ in lakh)

Particulars	Regulation	ACE claimed		
		2016-17	2017-18	2018-19
Asset-1				
Balance and retention payments for liabilities other than IDC	14(1)(i)	130.18	90.26	192.59
Works deferred for execution	14(1)(ii)	242.20	189.83	217.05
IDC discharged after COD	14(1)(i)	0.00	4.91	0.00
Total ACE (Asset-1)		372.38	285.00	409.64
Asset-2				
Balance and retention payments for liabilities other than IDC	14(1)(i)			119.69
Works deferred for execution	14(1)(ii)			270.95
IDC discharged after COD	14(1)(i)			39.99
Total ACE (Asset-2)				430.63

26. We have considered the submissions of the petitioner. ACE claimed by the Petitioner has been verified from the Auditor Certificates. The discharge of IDC for the transmission assets has been considered as per the IDC statements submitted by the Petitioner. Accordingly, ACE has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations (un-discharged liabilities recognized to be payable at a future date) and Regulation 14(1)(ii) of the 2014 Tariff Regulations (works deferred for execution). Further, the capital cost claimed as on 31.3.2019 for Asset-1 and Asset-2 are within the apportioned approved capital cost as per FR. ACE allowed for the 2014-19 period is as follows:



(₹ in lakh)

Asset	Apportioned approved Cost as per FR	Capital Cost allowed (as on 1.4.2014)	ACE allowed			Capital Cost claimed (as on 31.3.2019)
			2016-17	2017-18	2018-19	
Asset-1	2184.87	454.76	372.37	285.00	409.63	1521.76
Asset-2	3555.09	2534.83			430.63	2965.46

Debt-Equity ratio

27. The Petitioner has claimed debt-equity ratio of 70:30 as on COD for the transmission assets. Debt-equity ratio of 70:30 is considered as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt and equity considered as on COD and as on 31.3.2019 for the purpose of tariff for the 2014-19 period are as follows:

Asset-1

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	318.33	70.00	1065.23	70.00
Equity	136.43	30.00	456.53	30.00
Total	454.76	100.00	1521.76	100.00

Asset-2

Funding	Capital Cost (as on COD) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	1774.38	70.00	2075.82	70.00
Equity	760.45	30.00	889.64	30.00
Total	2534.83	100.00	2965.46	100.00

Depreciation

28. The Petitioner's claim towards depreciation in respect of the transmission assets is found to be higher than the depreciation allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 for Asset-1 and *vide* order dated 14.4.2020 in Petition No.



32/TT/2019 for Asset-2. The Petitioner has not given any justification for claiming higher depreciation than what was allowed earlier nor has made any specific prayer for allowing higher depreciation in this petition. It is observed that the Petitioner has segregated IT equipment from sub-station and claim higher depreciation for IT equipment. Similar issue had come up in Petition No. 19/TT/2020 where the Commission *vide* order dated 9.5.2020, has considered depreciation for IT equipment @5.28% as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 2019-24 tariff period, IT equipment has been considered separately and depreciation has been allowed @15% for balance depreciable value of IT equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I and Annexure-II in respect of Asset-1 and Asset-2 has been worked out after taking into account the depreciation rates of transmission assets as specified in the 2014 Tariff Regulations. The depreciation allowed during 2014-19 period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Opening Gross Block	454.76	827.13	1112.13
ACE	372.37	285.00	409.63
Closing Gross Block	827.13	1112.13	1521.76
Average Gross Block	640.95	969.63	1316.95
Weighted average rate of Depreciation (WAROD) (in %)	5.42	5.42	5.43
Balance useful life of the asset (Year)	24	24	23
Lapsed life at the beginning of the year (Year)	0	0	1
Aggregate Depreciable Value	576.85	872.67	1185.25
Combined Depreciation during the year	10.56	52.58	71.47



(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Cumulative Aggregate Depreciation at the end of the year	10.56	63.14	134.61
Remaining Aggregate Depreciable Value at the end of the year	566.29	809.52	1050.64

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Opening Gross Block	2534.83
ACE	430.63
Closing Gross Block	2965.46
Average Gross Block	2750.15
Weighted average rate of Depreciation (WAROD) (in %)	5.31
Balance useful life of the asset (Year)	25
Lapsed life at the beginning of the year (Year)	0
Aggregate Depreciable Value	2475.13
Combined Depreciation during the year	87.23
Cumulative Aggregate Depreciation at the end of the year	87.23
Remaining Aggregate Depreciable Value at the end of the year	2387.91

29. The details of depreciation allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, depreciation claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	10.56	66.30	90.08
Claimed by the Petitioner in the instant petition	10.76	53.99	73.00
Approved after true-up in this order	10.56	52.58	71.47

Page 15 of 50



(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed vide order dated 14.4.2020 in Petition No. 32/TT/2019	91.62
Claimed by the Petitioner in the instant petition	89.08
Approved after true-up in this order	87.23

Interest on Loan (IoL)

30. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The true-up IoL allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Gross Normative Loan	318.33	578.99	778.49
Cumulative Repayments up to Previous Year	0.00	10.56	63.14
Net Loan-Opening	318.33	568.43	715.35
Additions due to ACE	260.66	199.50	286.74
Repayment during the year	10.56	52.58	71.47
Net Loan-Closing	568.43	715.35	930.62
Average Loan	443.38	641.89	822.99
Weighted Average Rate of Interest on Loan (in %)	7.7005	7.7799	7.8249
Interest on Loan	10.38	49.94	64.40

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Gross Normative Loan	1774.38
Cumulative Repayments up to Previous Year	0.00

Page 16 of 50

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Net Loan-Opening	1774.38
Additions due to ACE	301.44
Repayment during the year	87.23
Net Loan-Closing	1988.60
Average Loan	1881.49
Weighted Average Rate of Interest on Loan (in %)	7.6199
Interest on Loan	85.63

31. The details of IoL allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, IoL claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	10.38	63.20	81.01
Claimed by the Petitioner in the instant petition	10.38	49.87	64.21
Approved after true-up in this order	10.38	49.94	64.40

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed <i>vide</i> order dated 14.4.2020 in Petition No. 32/TT/2019	90.26
Claimed by the Petitioner in the instant petition	85.59
Approved after true-up in this order	85.63

Return on Equity (RoE)

32. The Petitioner has claimed RoE for the transmission assets 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 rate (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2016-17	21.342	19.706
2017-18	21.342	19.706
2018-19	21.549	19.758

33. The Commission, vide order dated 27.4.2020 in Petition No.274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	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

34. The MAT rates considered in order dated 27.4.2020 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 period in terms of the provisions of the 2014 Tariff Regulations, which are as follows:

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

35. Accordingly, RoE is trued up on the basis of the MAT rate applicable in the respective years and the same are allowed as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Opening Equity	136.43	248.14	333.64
Additions	111.71	85.50	122.89
Closing Equity	248.14	333.64	456.53
Average Equity	192.28	290.89	395.08
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	11.52	57.32	78.06

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Opening Equity	760.45
Additions	129.19
Closing Equity	889.64
Average Equity	825.04
Return on Equity (Base Rate) (in %)	15.500
MAT Rate for respective year (in %)	21.549
Rate of Return on Equity (in %)	19.758
Return on Equity	97.36

36. The details of RoE allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, RoE claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	11.47	72.00	97.82
Claimed by the Petitioner in the instant petition	11.52	57.32	78.06
Approved after true-up in this order	11.52	57.32	78.06

Page 19 of 50



Order in Petition No. 15/TT/2021

48



(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed vide order dated 14.4.2020 in Petition No. 32/TT/2019	101.50
Claimed by the Petitioner in the instant petition	97.37
Approved after true-up in this order	97.36

Operation & Maintenance Expenses (O&M Expenses)

37. The O&M Expenses claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

O&M Expenses claimed by the Petitioner			
Particulars	2016-17	2017-18	2018-19
Asset-1	78.30*	266.04	274.84
Asset-2			82.08*

*Pro-rata O&M Expenses

38. We have considered the submissions of the Petitioner. The O&M Expenses norms specified for the elements covered in the transmission assets under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

Element	Norm for 2016-17	Norm for 2017-18	Norm for 2018-19
400 kV Sub-station (₹ lakh/bay)	64.37	66.51	68.71

39. The O&M Expenses allowed are in terms of the norms specified in Regulation 29(3) of the 2014 Tariff Regulations and are as follows:

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Sub-station bays at Jalandhar and Samba			
400 kV bays (Number of bays)	4	4	4
Norms (₹ lakh/bay)	64.37	66.51	68.71
Total O&M Expenses (₹ in lakh)	78.30	266.04	274.84



Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Sub-station bays at Samba	
400 kV bays (Number of bays)	2
Norms (₹ lakh/bay)	68.71
Total O&M Expenses (₹ in lakh)	82.08

40. The details of O&M Expenses allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, O&M Expenses claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	78.30	266.04	274.84
Claimed by the Petitioner in the instant petition	78.30	266.04	274.84
Approved after true-up in this order	78.30	266.04	274.84

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed <i>vide</i> order dated 14.4.2020 in Petition No. 32/TT/2019	82.07
Claimed by the Petitioner in the instant petition	82.08
Approved after true-up in this order	82.08

Interest on Working Capital (IWC)

41. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and are allowed for the transmission assets as follows:



(₹ in lakh)			
Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	21.46	22.17	22.90
Working Capital for Maintenance Spares (15% of O&M Expenses)	38.62	39.91	41.23
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	63.34	73.88	84.63
Total Working Capital	123.42	135.96	148.76
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	4.80	17.40	19.04

(₹ in lakh)	
Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Working Capital for O&M Expenses (O&M Expenses for 1 month)	11.45
Working Capital for Maintenance Spares (15% of O&M Expenses)	20.61
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	101.01
Total Working Capital	133.08
Rate of Interest (%)	12.20
Interest on Working Capital	9.70

42. The details of IWC allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, IWC claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	4.80	18.31	20.24
Claimed by the Petitioner in the instant petition	4.81	17.43	19.07
Approved after true-up in this order	4.80	17.40	19.04

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed <i>vide</i> order dated 14.4.2020 in Petition No. 32/TT/2019	9.97
Claimed by the Petitioner in the instant petition	9.74
Approved after true-up in this order	9.70

Approved Annual Fixed Charges for 2014-19 Tariff Period

43. The trued-up Annual Fixed Charges approved for the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Depreciation	10.56	52.58	71.47
Interest on Loan	10.38	49.94	64.40
Return on Equity	11.52	57.32	78.06
O&M Expenses	78.30	266.04	274.84
Interest on Working Capital	4.80	17.40	19.04
Total	115.57	443.28	507.81

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Depreciation	87.23
Interest on Loan	85.63
Return on Equity	97.36
O&M Expenses	82.08
Interest on Working Capital	9.70
Total	361.99

44. The details of AFC allowed *vide* order dated 19.7.2018 in Petition No. 04/TT/2018 in respect of Asset-1 and *vide* order dated 14.4.2020 in Petition No. 32/TT/2019 in respect of Asset-2, AFC claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
Asset-1			
Allowed <i>vide</i> order dated 19.7.2018 in Petition No. 04/TT/2018	115.51	485.85	563.99
Claimed by the Petitioner in the instant petition	115.77	444.65	509.18
Approved after true-up in this order	115.57	443.28	507.81

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
Asset-2	
Allowed <i>vide</i> order dated 14.4.2020 in Petition No. 32/TT/2019	375.42
Claimed by the Petitioner in the instant petition	363.86
Approved after true-up in this order	361.99



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

45. The Petitioner has combined the transmission assets covered in the transmission project into one single "Combined Asset" and has filed a consolidated petition claiming tariff for the Combined Asset as a whole for the 2019-24 tariff period as provided in Regulation 8(1) of the 2019 Tariff Regulations.

46. The Petitioner has claimed the following transmission charges for 2019-24 tariff period for the Combined Asset:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	255.71	266.67	266.67	266.67	266.67
Interest on Loan	227.97	218.67	198.84	179.00	157.87
Return on Equity	264.40	275.95	275.95	275.95	275.95
O&M Expenses	199.30	206.08	213.10	220.36	227.86
Interest on Working Capital	19.94	20.47	20.48	20.49	20.46
Total	967.32	987.84	975.04	962.47	948.81

47. The details of IWC claimed by the Petitioner for the 2019-24 tariff period in respect of the Combined Asset are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	16.61	17.17	17.76	18.36	18.99
Working Capital for Maintenance Spares (15% of O&M Expenses)	29.90	30.91	31.97	33.05	34.18
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	118.93	121.79	120.21	118.66	116.66
Total Working Capital	165.44	169.87	169.94	170.07	169.83
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	19.94	20.47	20.48	20.49	20.46

Effective Date of Commercial Operation (E-COD)

48. The Petitioner has claimed E-COD of the Combined Asset as 27.1.2018. Based on the trued-up admitted capital cost as on 31.3.2019 and actual COD of all the transmission assets, E-COD has been worked out as follows:

Particulars	Capital Cost (as on 31.3.2019) (₹ in lakh)	COD	Number of days from last COD	Weightage of Cost (in %)	Weighted days	Effective COD (latest COD – weighted days)
Asset-1	1521.76	11.12.2016	623	33.91	211.28	26.1.2018
Asset-2	2965.46	26.8.2018	0	66.09	0.00	
Total	4487.22			100.00	211.28	

49. E-COD is used to determine the lapsed life of the project as a whole which works out as 1 (one) year as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL) of the Combined Transmission Asset

50. The Combined Asset may have multiple elements (i.e., land, building, transmission line, sub-station and PLCC) and each element may have a different span of life. Therefore, the concept of WAL has been used as the useful life of the project as whole.

51. WAL has been determined based on the admitted capital cost of the individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as it was defined in the 2014 Tariff Regulations prevailing at the time of actual COD of the individual asset has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 24 years as shown below:



Particular (1)	Combined Cost (₹in lakh) (2)	Life in Years (3)	Weighted Cost (₹in lakh) (4) = (2)x(3)	Weighted Average Life of Asset (in years) (5) = (4)/(2)
Sub-station	4140.01	25	103500.18	24.14 years, rounded off to 24 years
PLCC	298.84	15	4482.66	
IT Equipment and Software	48.37	6.67	322.47	
Total	4487.22		108305.32	

52. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e., for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the Effective COD of the assets is 26.1.2018 and the lapsed life of the project as a whole works out as 1 year as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from Effective COD). Accordingly, the WAL has been used to determine the remaining useful life as on 31.3.2019 to be 23 years.

Capital Cost

53. Regulation 19 of the 2019 Tariff Regulations provides as follows:

“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 ash disposal and utilization including handling and transportation facility;
- (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 up to 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 decapitalised 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.”

54. The Petitioner has claimed the capital cost of ₹4487.39 lakh as on 31.3.2019 for the Combined Asset. The admitted capital cost as on 31.3.2019 for the transmission assets is ₹4487.22 lakh. Accordingly, the admitted capital cost of ₹4487.22 lakh has been considered as on 1.4.2019 of the Combined Asset for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

55. Regulation 25 of the 2019 Tariff Regulations provides as follows:

“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



- (d) 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;
 (g) Raising of ash dyke as a part of ash disposal system.”

56. The Petitioner has claimed ACE of ₹80.57 lakhs for Asset-2 and ₹324.11 lakhs for Asset-2 for the 2019-24 tariff period on account of un-discharged liabilities recognized to be payable at a future date under Regulation 24(1)(a) of the 2019 Tariff Regulations, works deferred for execution under Regulation 24(1)(b) of the 2019 Tariff Regulations and un-discharged liabilities after the cut-off date for works executed prior to the cut-off date under Regulation 25(1)(d) of the 2019 Tariff Regulations. The details of the same are summarised as follows:

(₹ in lakh)

Particulars	ACE Claimed
	2019-20
Asset-1	80.58
Asset-2	329.57
Total (Combined Asset)	410.15

57. The Petitioner vide affidavit dated 9.7.2021 has submitted the package-wise breakup as follows:

(₹ in lakh)

Vendor Name	Regulation	Asset Type	2019-20
Asset-1			
Godrej & Boyce Mfg. Co. Ltd.	25(1)(d)	Sub-station	69.31
		PLCC	11.26
Asset-2			
Godrej & Boyce Mfg. Co. Ltd.	24(1)(a)	Sub-station	212.74
		PLCC	9.87
	24(1)(b)	Sub-station	101.50

58. We have considered the submissions of the petitioner. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) (un-discharged liabilities



recognized to be payable at a future date) and Regulation 24(1)(b) (works deferred for execution) for Asset-1 and under Regulation 25(1)(d) (un-discharged liabilities after the cut-off date for works executed prior to the cut-off date) of the 2019 Tariff Regulations for Asset-2. Further, the un-discharged portion of IDC for Asset-2 as on 31.3.2019 i.e., ₹5.60 lakh is also allowed as ACE in 2019-20 under Regulation 24(1)(a) of the 2019 Tariff Regulations. The capital cost allowed as on 31.3.2024 is within the apportioned capital cost as per FR for the transmission assets and the total capital cost allowed for the Combined Asset as on 31.3.2024 is within the total capital cost as per FR of ₹5740 lakh. Accordingly, ACE considered for the 2019-24 tariff period and the capital cost as on 31.3.2024 considered for the Combined Asset are as follows:

Particulars	Capital Cost admitted (as on 1.4.2019)	(₹ in lakh)	
		ACE admitted 2019-20	Capital Cost admitted (as on 31.3.2024)
Combined Asset	4487.22	410.28	4897.50

59. Therefore, the capital cost of ₹4487.22 lakh as on 1.4.2019 and ₹ 4897.50 lakh as on 31.3.2024 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.

Debt-Equity ratio

60. Regulation 18 of the 2019 Tariff Regulations provides as follows:

“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:

- 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 system including communication system 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 system including communication system 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 system including communication system 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."

61. The debt-equity considered for the purpose of computation of tariff of 2019-24 tariff period in respect of the Combined Asset is as follows:



Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	3141.06	70.00	3428.25	70.00
Equity	1346.17	30.00	1469.25	30.00
Total	4487.22	100.00	4897.50	100.00

Depreciation

62. Regulation 33 of the 2019 Tariff Regulations provides as follows:

“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system 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 system 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 system, 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 system, weighted average life for the generating station of the transmission system 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 assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(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 de-capitalized asset during its useful services.”

63. WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as nil i.e., IT asset has been considered as 100 per cent depreciable. The calculation of WAROD for the 2019-24 period is at Annexure-III. 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 Combined Asset is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	4487.22	4897.50	4897.50	4897.50	4897.50
Addition during the year due to projected ACE	410.28	0.00	0.00	0.00	0.00
Closing Gross Block	4897.50	4897.50	4897.50	4897.50	4897.50
Average Gross Block	4692.36	4897.50	4897.50	4897.50	4897.50



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Weighted Average Rate of Depreciation (in %)	5.45	5.44	5.44	5.44	5.44
Balance useful life at the beginning of the year (in year)	23	22	21	20	19
Elapsed Life at the beginning of the year (in year)	1	2	3	4	5
Aggregate Depreciable Value	4227.97	4412.59	4412.59	4412.59	4412.59
Combined Depreciation during the year	255.71	266.66	266.66	266.66	266.66
Cumulative Aggregate Depreciation at the end of the year	477.55	744.20	1010.86	1277.52	1544.18
Remaining Aggregate Depreciable Value at the end of the year	3750.42	3668.39	3401.73	3135.07	2868.42

Interest on Loan (IoL)

64. Regulation 32 of the 2019 Tariff Regulations provides as follows:

“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 assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto 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 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.”

65. The weighted average rate of IoL has been considered on the basis of 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 may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	3141.06	3428.25	3428.25	3428.25	3428.25
Cumulative Repayments up to Previous Year	221.84	477.55	744.20	1010.86	1277.52
Net Loan-Opening	2919.22	2950.70	2684.05	2417.39	2150.73
Additions due to ACE	287.19	0.00	0.00	0.00	0.00
Repayment during the year	255.71	266.66	266.66	266.66	266.66
Net Loan-Closing	2950.70	2684.05	2417.39	2150.73	1884.07
Average Loan	2934.96	2817.37	2550.72	2284.06	2017.40
Weighted Average Rate of Interest on Loan (in %)	7.7805	7.7753	7.8108	7.8539	7.8447
Interest on Loan	228.35	219.06	199.23	179.39	158.26

Return on Equity (RoE)

66. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:

“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 system including communication system 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 system;

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 system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system 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:



Rate of pre-tax return on equity = 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.

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;*
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;*
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;*
- (d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%.*

(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.”

67. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable for 2019-20 has been considered for the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the Combined Asset is as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1346.17	1469.25	1469.25	1469.25	1469.25
Additions due to ACE	123.08	0.00	0.00	0.00	0.00
Closing Equity	1469.25	1469.25	1469.25	1469.25	1469.25
Average Equity	1407.71	1469.25	1469.25	1469.25	1469.25
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	264.40	275.95	275.95	275.95	275.95

Operation & Maintenance Expenses (O&M Expenses)

68. The O&M expenses claimed by the Petitioner for various elements included in the Combined Asset for 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-stations at Jallandhar and Samba					
400 kV bays (Number of bays)	6	6	6	6	6
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
Total O&M Expenses (₹ in lakh)	192.90	199.68	206.70	213.96	221.46
PLCC (2% of ₹320.15 lakh)	6.40	6.40	6.40	6.40	6.40
Total O&M Expenses (₹ in lakh)	199.30	206.08	213.10	220.36	227.86

69. Regulation 35(3)(a) and Regulation 33(4) of the 2019 Tariff Regulations provides as follows:

"35 Operation and Maintenance Expenses (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
Norms for sub-station Bays (₹ Lakh per bay)					
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
Norms for Transformers (₹ Lakh per MVA)					
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



Norms for AC and HVDC lines (₹ Lakh per km)					
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
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ 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;

Provided further that:

i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

iii. the O&M expenses of ± 500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

iv. the O&M expenses of ± 800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and

vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year

(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."*

70. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for 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.

71. The O&M Expenses have been worked out for the Combined Asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-stations at Jalandhar and Samba					
400 kV bays (Number of bays)	6	6	6	6	6
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
Total O&M Expenses (₹ in lakh)	192.90	199.68	206.70	213.96	221.46

Interest on Working Capital (IWC)

72. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify as follows:

"34. Interest on Working Capital

(1) The Working Capital shall Cover:

.....

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

i. Receivables equivalent to 45 days of 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 system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(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.Definitions ...

(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;”

73. The Petitioner has submitted that it has computed IWC for 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%.

74. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. ROI considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas ROI for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon for the Combined Asset is as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for 1 month)	16.08	16.64	17.23	17.83	18.46
Working Capital for Maintenance Spares (15% of O&M Expenses)	28.94	29.95	31.01	32.09	33.22
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	118.16	120.85	119.11	117.56	115.56
Total Working Capital	163.17	167.44	167.34	167.48	167.23
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	19.66	18.84	17.57	17.59	17.56

Annual Fixed Charges of the 2019-24 Tariff Period

75. The transmission charges allowed in respect of Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	255.71	266.66	266.66	266.66	266.66
Interest on Loan	228.35	219.06	199.23	179.39	158.26
Return on Equity	264.40	275.95	275.95	275.95	275.95
O & M Expenses	192.90	199.68	206.70	213.96	221.46
Interest on Working Capital	19.66	18.84	17.57	17.59	17.56
Total	961.02	980.19	966.11	953.55	939.89

Filing Fee and Publication Expenses

76. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses. 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.



License Fee and Publication Expenses

77. 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

78. The Petitioner has submitted that, 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.

79. We have considered the submission of the Petitioner. Since, GST is not levied on transmission service at present we are of the view that Petitioner's prayer is premature.

Security Expenses

80. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and consequential IWC.

81. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission *vide* order dated



3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

82. 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

83. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, with effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short "the 2020 Sharing Regulations"). Accordingly, the liabilities of the DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

84. To summarise:

- a. The trued-up Annual Fixed Charges (AFC) approved for the 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	2016-17 (Pro-rata 111 days)	2017-18	2018-19
AFC (Asset-1)	115.57	443.28	507.81

(₹ in lakh)

Particulars	2018-19 (Pro-rata 218 days)
AFC (Asset-2)	361.99

b. AFC allowed in respect of the Combined Asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	961.02	980.19	966.11	953.55	939.89

85. Annexure-I, Annexure-II and Annexure-III given hereinafter shall form part of the instant order.

86. This order disposes of Petition No. 15/TT/2021 in terms of above discussions and findings.

sd/-

(P. K. Singh)
Member

sd/-

(Arun Goyal)
Member

sd/-

(P. K. Pujari)
Chairperson



Annexure-I

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)				Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
		2016-17	2017-18	2018-19	Total		2016-17	2017-18	2018-19
Sub Station	395.06	309.92	236.35	351.71	897.98	5.28%	29.04	43.46	58.99
PLCC	59.70	48.89	46.72	57.26	152.87	6.33%	5.33	8.35	11.64
IT Equipment (Incl. Software)	-	13.56	1.93	0.66	16.15	5.28%	0.36	0.77	0.84
Total	454.76	372.37	285.00	409.63	1067.00		34.73	52.58	71.47
Average Gross Block (₹ in lakh)							640.95	969.63	1316.95
Weighted Average Rate of Depreciation							5.42%	5.42%	5.43%

77



Annexure-II

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh) 2018-19
		2018-19	Total			
Sub Station	2430.55	416.42	416.42	2846.97	5.28%	139.33
PLCC	73.21	13.05	13.05	86.27	6.33%	5.05
IT Equipment (Incl. Software)	31.07	1.15	1.15	32.22	5.28%	1.67
Total	2534.83	430.63	430.63	2965.46		146.05
				Average Gross Block (₹ in lakh)		2750.15
				Weighted Average Rate of Depreciation		5.31%

87



Annexure-III

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	4140.01	388.92	388.92	4528.92	5.28%	228.86	239.13	239.13	239.13	246.59
PLCC	298.84	21.29	21.29	320.14	6.33%	19.59	20.26	20.26	20.26	17.43
IT Equipment (Incl. Software)	48.37	0.07	0.07	48.44	15.00%	7.26	7.27	7.27	7.27	7.27
Total	4487.22	410.28	410.28	4897.50		255.71	266.66	266.66	266.66	266.66
Average Gross Block (₹ in lakh)						4692.36	4897.50	4897.50	4897.50	4897.50
Weighted Average Rate of Depreciation						5.45%	5.44%	5.44%	5.44%	5.44%

79



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Website: bbcostaccountants.com

Certificate Ref. No. BB/CERT/24-25/08

Date: 28/06/2024

CERTIFICATE

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, KatwariaSarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost of 2 No 400KV Line Bays at Samba S/S & 2 No 400 KV Line Bays at Jalandhar S/S under Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX) which is under commercial operation w.e.f. 11.12.2016, is as under:

(Rs. in Lakhs)

S/N	Particulars	Capital Cost	IEDC	IDC	Total
1	Expenditure from DOCO to 31.03.2019	1,505.32	11.53	4.91	1,521.76
2	Expenditure from 01.04.2019 to 31.03.2020	80.57	0.00	0.00	80.57
3	Expenditure from 01.04.2020 to 31.03.2021	0.00	0.00	0.00	0.00
	Total	1,585.89	11.53	4.91	1,602.33

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information drawn from the audited Statement of Accounts of Power Grid Corporation of India Ltd. Northern Region II as on 31.03.2024.

For Bandyopadhyaya Bhaumik & Co.

Cost Accountants

Digitally signed by Sarbajit

Ray

Sarbajit Ray

Date: 2024.06.28 17:31:28
+05'30'

(CMA SARBAJIT RAY)

PARTNER

FRN: 000041

M.No. 27784

UDIN: 2427784ZZP9ZEAY305

Place:- Haryana

Date:- 28/06/2024



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Certificate Ref. No. BB/CERT/24-25/08 (A)

Date: 28/06/2024

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(Rs. in Lakhs)

S/N	Particulars	Free hold Land	Lease hold Land	Buildin g and Civil Works	Tr. Line	Sub Station	OPG W	Communic ation system (excl. OPGW)	IT Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	Batteries	Total
1	Expenditure from DOCO to 31.03.2019	0.00	0.00	0.00	0.00	1,293.05	0.00	212.57	16.14	0.00	1,521.76
2	Expenditure from 01.04.2019 to 31.03.2020	0.00	0.00	0.00	0.00	69.31	0.00	11.26	0.00	0.00	80.57
3	Expenditure from 01.04.2020 to 31.03.2021	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00	1,362.37	0.00	223.83	16.14	0.00	1,602.33

SI No	Particulars	Sub Station & PLCC
1	Total Plant & Machinery Cost (Excluding IDC, IEDC, Land Cost & Cost of civil Works for the purpose of Initial Spares)	1,585.89
2	Initial Spares included above	39.51

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information drawn from the audited Statement of Accounts of Power Grid Corporation of India Ltd. Northern Region II as on 31.03.2024.

For Bandyopadhyaya Bhaumik & Co.

Cost Accountants

Sarbajit Ray
Digitally signed by Sarbajit Ray
Date: 2024.06.28 17:31:56
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81

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Date: 28/06/2024

CERTIFICATE

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, KatwariaSarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost of **2 Nos 400 KV Line Bays and 2 Nos 50 MVAR Line Reactor at Samba Sub Station under Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX)** which is under commercial operation w.e.f. 26.08.2018, is as under:

(Rs. in Lakhs)

S/N	Particulars	Capital Cost	IEDC	IDC	Total
1	Expenditure from DOCO to 31.03.2019	2,708.30	126.08	136.67	2,971.06
2	Expenditure from 01.04.2019 to 31.03.2020	234.53	0.00	0.00	234.53
3	Expenditure from 01.04.2020 to 31.03.2021	38.41	0.00	0.00	38.41
	Total	2,981.24	126.08	136.67	3,244.00

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information drawn from the audited Statement of Accounts of Power Grid Corporation of India Ltd. of Northern Region - II as on 31.03.2024.

For Bandyopadhyaya Bhaumik & Co.
Cost Accountants

(CMA SARBAJIT RAY)
PARTNER

FRN: 000041

M.No. 27784

UDIN: 2427784ZZP9ZEAY305

Place:- Haryana
Date:- 28/06/2024



82

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Certificate Ref. No. **BB/CERT/24-25/09 (A)**

Date: **28/06/2024**

CERTIFICATE

This is to certify that we have verified the relevant records and other documents of Power Grid Corporation Of India Limited having its Registered Office at B-9, Qutab Institutional Area, KatwariaSarai, New Delhi-110016 and on the basis of our verification, we certify that Capital Cost of 2 Nos 400 KV Line Bays and 2 Nos 50 MVAR Line Reactor at Samba Sub Station under Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX) which is under commercial operation w.e.f. 26.08.2018, is as under:

(Rs. in Lakhs)

S/N	Particulars	Free hold Land	Lease hold Land	Building and Civil Works	Tr. Line	Sub Station	OPG W	Communi cation system (excl. OPGW)	IT Equipment incl. software, UNMS, URTDSM, EMS, Cyber Security System, REMC, WAMS, SCADA System	Batteries	Total
1	Expenditure from DOCO to 31.03.2019	0.00	0.00	0.00	0.00	2,852.35	0.00	86.43	32.29	0.00	2,971.06
2	Expenditure from 01.04.2019 to 31.03.2020	0.00	0.00	0.00	0.00	224.66	0.00	9.87	0.00	0.00	234.53
3	Expenditure from 01.04.2020 to 31.03.2021	0.00	0.00	0.00	0.00	38.41	0.00	0.00	0.00	0.00	38.41
	Total	0.00	0.00	0.00	0.00	3,115.42	0.00	96.30	32.29	0.00	3,244.00

Sl No	Particulars	Sub Station & PLCC
1	Total Plant & Machinery Cost (Excluding IDC, IEDC, Land Cost & Cost of civil Works for the purpose of Initial Spares)	2,981.24
2	Initial Spares included above	64.81

We certify that we have verified the expenditure up to 31.03.2024 as referred above on the basis of the information drawn from the audited Statement of Accounts of Power Grid Corporation of India Ltd. of Northern Region - II as on 31.03.2024.

For Bandyopadhyaya Bhaumik & Co.
Cost Accountants

(CMA SARBAJIT RAY)
PARTNER
FRN: 000041
M.No. 27784

UDIN: 2427784ZZP9ZEAY305

Place:- Haryana
Date:- 28/06/2024



ADD Cap Details/Liability Flow Statement

Name of Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Asset Name: 2 No 400KV Line Bays at Samba S/S & 2 No. 400 KV Line Bays at Jalandhar S/S
 Project Name: Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX)
 DOCC: 11-Dec-16

R8 in Lakhs

Asset No.	Headwise/ Partywise	Particulars*	Year of Actual Capitalisation	Outstanding Liability as on COD/3 rd Mar 2019*	Discharge					Reversal					Additional Liability Recognized*					Outstanding Liability as on 31.3.2024					
					2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)	2019-20	2020-21	2021-22		2022-23	2023-24	Total (19-24)		
		Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Civil & Building Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Transmission Line work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S GODREI & BOYCE	S/S Work	2016-17	69.31	69.31	0.00	0.00	0.00	0.00	69.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S CO.LTD	S/S Work	2016-17	11.26	11.26	0.00	0.00	0.00	0.00	11.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S GODREI & BOYCE	PLCC Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S CO.LTD	IT Works		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Comm. Equip. Accessories		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fibre optic Cable and Access.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Detail of Unexecuted works.

Asset No.	Headwise/ Partywise	Particulars*	Year of Actual Capitalisation	Details of unexecuted work for which works has been completed before DOCC/Cut-off date										Details of unexecuted work for which works has been completed before DOCC/Cut-off date Tariff Block 2014-19					Details of unexecuted work for which works has been completed before DOCC/Cut-off date Tariff Block 2019-24					Remarks													
				2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total (2014-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)															
		Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Civil & Building Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Transmission Line work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		S/S Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		PLCC Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		IT Works		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Comm. Equip. Accessories		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fibre optic Cable and Access.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All Works completed within Cut-off Date



ADD Cap Details/Liability Flow Statement

Name of Petitioner: POWERGRID CORPORATION OF INDIA LTD.
 Asset Name: 2 Nos. 400 KV Line Bays and 2 Nos. 50 MVAR Line Reactor at Sambla Sub Station
 Project Name: Northern Region System Strengthening Scheme-XXIX (NRS55-XXIX)
 DOCO: 26-Aug-18

Rs in Lakhs

Asset No.	Headwise /Particulars #	Year of Actual Capitalisation	Outstanding Liability as on COD/31st March 2019*	Discharge				Reversal				Additional Liability Recognized*				Outstanding Liability as on 31.3.2024	
				2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (19-24)		
	Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Civil & Building Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Transmission Line work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-2	M/S GODREJ & BOYCE	2017-18	263.07	224.66	38.41	0.00	0.00	263.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S CO. LTD																
	M/S GODREJ & BOYCE	2017-18	9.87	9.87	0.00	0.00	0.00	9.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	M/S CO. LTD																
	IT Works			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Comm. Equip. Accessories		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fibre optic Cable and Acces.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Detail of Unexecuted works.

Asset No.	Headwise /Particulars #	Year of Actual Capitalisation	Details of unexecuted work for which works has been completed before DOCO/Cut-off date				Details of unexecuted work for which works has been completed before DOCO/Cut-off date				Remarks					
			2014-15	2015-16	2016-17	2017-18	2018-19	Total (2014-19)	2019-20	2020-21		2021-22	2022-23	2023-24	Total (19-24)	
	Land		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Civil & Building Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Transmission Line work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	S/S Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asset-2	PLCC Work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	IT Works		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Comm. Equip. Accessories		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fibre optic Cable and Acces.		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All Works completed within Cut-off Date



Year-Wise Detail of Liability discharged, corresponding to Initial Spares:

		DOCO		
2 No 400KV Line Bays at Samba S/S & 2 No 400 KV Line Bays at Jalandhar S/S under Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX)		11-Dec-16		
SI No	Particulars	TL	SS	total
		(Rs. In Lakhs)		
1	Expenditure up to 11.12.2016 (Upto DOCO)		0.00	0.00
2	Expenditure from 12.12.2016 to 31.03.2017		0.00	0.00
3	Expenditure in 2017-18		30.14	30.14
4	Expenditure in 2018-19		9.37	9.37
	TOTAL	0.00	39.51	39.51

		DOCO		
2 Nos 400/220 KV Line Bays and 2 Nos 50 MVAR Line Reactor at Samba under Northern Region System Strengthening Scheme-XXIX (NRSSS-XXIX)		26-Aug-18		
SI No	Particulars	TL	SS	total
		(Rs. In Lakhs)		
1	Expenditure up to 26.08.2018 (Upto DOCO)		45.21	45.21
2	Expenditure from 27.08.2018 to 31.03.2019		5.46	5.46
3	Expenditure during 2019-20		14.14	14.14
	TOTAL	0.00	64.81	64.81

Summary of Tariff

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(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	253.34	262.93	263.95	263.95	263.95
Interest on Loan-Form No. 9E	223.09	203.20	183.23	168.50	154.44
Return on Equity-Form No. 8	261.87	271.99	273.07	273.07	273.07
Int. on Working capital-Form No.11	19.51	18.51	17.29	17.37	19.97
Op. and maintenance-Form No.2	192.90	199.68	206.70	213.96	221.46
Total AFC	950.71	956.31	944.24	936.85	932.89

(Petitioner)

87



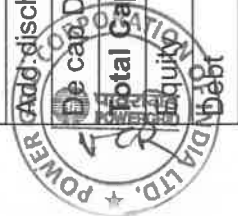
Summary of Asset Level Cost

Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX	
Element Description	Combined element of NRSS XXIX	
Region	Northern Region	DOC Date Jan 26, 2018

A) Summary of Capital Cost, Means of Finance of the Asset

(Amount in Rs. Lakh)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Expenditure incurred						
	As Per IA	As per RCE	As on COD / 01.04.2019	2019-20	2020-21	2021-22	2022-23	2023-24	As on 31.03.2024
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	4,140.22	299.14	38.41	0.00	0.00	0.00	4,477.77
Comm. Sys. excluding Fiber Optic	0.00	0.00	298.63	21.50	0.00	0.00	0.00	0.00	320.13
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDMS/	0.00	0.00	48.37	0.06	0.00	0.00	0.00	0.00	48.43
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books	0.00	0.00	4,487.22	320.70	38.41	0.00	0.00	0.00	4,846.33
Less: Liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add: discharge of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net cap. During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital incurred	0.00	0.00	4,487.22	320.70	38.41	0.00	0.00	0.00	4,846.33
	1,722.00	0.00	1,346.16	96.21	11.52	0.00	0.00	0.00	1,453.89
	4,018.00	0.00	3,141.06	224.49	26.89	0.00	0.00	0.00	3,392.44



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

1. Transmission Lines

(Amount in Rs. Lakh)

Summary:

68

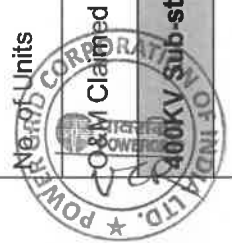


2. Sub Station

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		
Jallandhar:SAMBHA I & II BAY	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:JALLANDHAR I & II BAY	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:AMARGARH-I & II	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:2X50 MVAR SAMBA-AMARGARH LINE REACTORS		400 KV	2.000							50.000		Jan 26, 2018	Y

Summary:

O&M Expenses For Substations Covered in the instant petition	2019-20	2020-21	2021-22	2022-23	2023-24
400KV SUB-STATION					
Normative Rate of O&M as per Regulation	32.15	33.28	34.45	35.66	36.91
Normative Units	6.00	6.00	6.00	6.00	6.00
400KV Sub-station Reactor	192.90	199.68	206.70	213.96	221.46
Normative Rate of O&M as per Regulation	0.00	0.00	0.00	0.00	0.00



No. of Units	2.00	2.00	2.00	2.00	2.00	2.00
O&M Claimed	0.00	0.00	0.00	0.00	0.00	0.00
						2.00

91



3. Communication System

Summary:

92



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	192.90	199.68	206.70	213.96	221.46
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	192.90	199.68	206.70	213.96	221.46
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*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
Total O&M	192.90	199.68	206.70	213.96	221.46

93

(Petitioner)



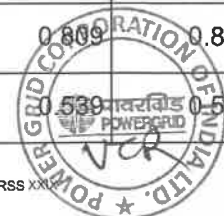
Normative parameters considered for tariff computations

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC Date	Jan 26, 2018

(Amount in Rs. Lakh)

Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	21.55	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
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
Norms for sub-station Bays (Rs Lakh per bay)						
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
Norms for Transformers (Rs Lakh per MVA)						
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
Norms for AC and HVDC lines (Rs Lakh per km)						
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

Norms for HVDC stations

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)



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC Date	Jan 26, 2018

A) Details of All the Asset Covered under the Scope of the Project

(Amount in Rs. Lakh)

Asset Name	Actual COD of the asset	COD considered for tariff purpose	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01.04.2019 (Refer E)	Balance useful Life of the project as on 01.04.2019 (Refer E)
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension		Dec 11, 2016				
02 Nos. 400 KV BAYS AT Samba for Amargarh (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac		Aug 26, 2018				
Summary			Jan 27, 2018	24	1	23

B) Details as on 01.04.2019 for determination of Single Tariff for the Project Commissioned prior to 01.04.2019

Asset Name	Capital Cost as on 31.03.2019	Cumulative Dep. as on 31.03.2019	Debt Equity Ratio as on 31.03.2019	Gross Equity for normative ROE as on 31.03.2019	Gross Loan as on 31.03.2019	Cumulative Re-payment of Loan as on 31.03.2019
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension	1,521.79	137.75	70:30	456.53	1,065.26	137.75
02 Nos. 400 KV BAYS AT Samba for Amargarh (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac	2,965.60	89.08	70:30	889.68	2,075.92	89.08



Total	4,487.39	226.83	70:30	1,346.21	3,141.18	226.83
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C) Computation of Effective COD for determining lapsed useful life of the project as whole

Asset Name	Actual COD of the asset	COD considered for tariff purpose	No of days between the COD of the asset considered for tariff and the COD of the Project	True Up Capital Cost as on 31.03.2019	Weight of the Cost of an asset (in %)	Weighted Days
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension		Dec 11, 2016	623	1,521.79	33.9125862	211.275412
02 Nos. 400 KV BAYS AT Samba for Amargarth (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac		Aug 26, 2018	0	2,965.60	66.0874138	0
Total			623	4,487.39	100	211.275412
Effective COD	Jan 27, 2018					

D) Weighted Average useful Life of the Project as whole

Asset Name	Freehold Land	Building & Other Civil Works	Transmission Lines	Sub-Station Equipments	PLCC	Leasehold Land	IT Equipm ent & S/ w	Total Cost
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension	0.00	0.00	0.00	1,293.06	212.58	0.00	16.15	1,521.79
02 Nos. 400 KV BAYS AT Samba for Amargarth (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac	0.00	0.00	0.00	2,847.10	86.28	0.00	32.22	2,965.60
Combined Post	0.00	0.00	0.00	4,140.16	298.86	0.00	48.37	4,487.39
Extended life	0.00	25.00	35.00	25.00	15.00	25.00	25.00	0.00
Weighted Cost	0.00	0.00	0.00	103,504.00	4,482.90	0.00	1,209.25	109,196.15

79



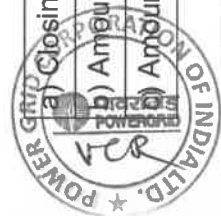
Statement of Capital cost

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

A) Capital Cost

(Amount in Rs. Lakh)

Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2019-20			
a) Opening Gross Block Amount as per books	4,487.22	0.00	4,487.22
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period	320.70	0.00	320.70
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00
a) Closing Gross Block Amount as per books	4,807.92	0.00	4,807.92
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
As on relevant date :2020-21			
a) Opening Gross Block Amount as per books	4,807.92	0.00	4,807.92
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00



c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
a) Addition in Gross Block Amount during the period			
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in B(a) above	38.41	0.00	38.41
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2021-22

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2022-23

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00



a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2023-24

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

Flow of liability for the Asset

(Amount in Rs. Lakh)

Particular	2019-2020				
Opening balance of liability	0.00	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00



Discharge of liability by payment and claimed as ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reversal/cancelation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)

102



Financial Package upto COD

Form No. - 6

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(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	4,018.00	INR	3,141.06		0.00
Equity		0.00		0.00		0.00
Foreign		0.00		0.00		0.00
Domestic	INR	1,722.00	INR	1,346.17		0.00
Total Equity	INR	1,722.00	INR	1,346.17		0.00
Debt Equity Ratio					70:30	
Total Cost	INR	5,740.00	INR	4,487.23		0.00

Particulars	Debt	Equity	Total
Addcap for 2019 - 2020			320.70
Addcap for 2020 - 2021			38.41
Addcap for 2021 - 2022			0.00
Addcap for 2022 - 2023			0.00



Addcap for 2023 - 2024			0.00
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Particulars	Actual	Normative	
Addcap for 2019 - 2020			
Equity		96.21	
Debt		224.49	
Total		320.70	
Addcap for 2020 - 2021			
Equity		11.52	
Debt		26.89	
Total		38.41	
Addcap for 2021 - 2022			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2022 - 2023			
Equity		0.00	
Debt		0.00	
Total		0.00	
Addcap for 2023 - 2024			
Equity		0.00	
Debt		0.00	
Total		0.00	
Total Capital cost with Addcap		4,846.34	



(Petitioner)

Statement of Additional Capitalisation after COD

Form No. - 7

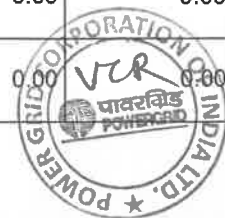
Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC Date	Jan 26, 2018

(Amount in Rs. Lakh)

Particulars	Addition Into Gross Block as per books of Account during the year (2)	De-Cap Into Gross Block as per books of Account during the year	Less: Deductions dr. the year towards				Add: Discharge of earlier admitted liability	ACE on cash basis for tariff purpose	Admitted Cost in final tariff (Rs Lakh)
			Grants Received (if any) (3)	Asset pertaining to other businesses (If any) (4)	Other Deduction (if any) (5)	Less: Undischarged liability included in (2-4-5)			
ACE for the year :2019-20 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	299.14	0.00	0.00	0.00	0.00	0.00	0.00	299.14	0.00
Comm. Sys. excluding Fiber Optic	21.50	0.00	0.00	0.00	0.00	0.00	0.00	21.50	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	320.70	0.00	0.00	0.00	0.00	0.00	0.00	320.70	0.00
ACE for the year :2020-21 (Actual/Projected)									



Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	38.41	0.00	0.00	0.00	0.00	0.00	0.00	38.41	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	38.41	0.00	0.00	0.00	0.00	0.00	0.00	38.41	0.00
ACE for the year :2021-22 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2022-23 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACE for the year :2023-24 (Actual/Projected)									
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Comm. Sys. excluding Fiber Optic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/UNMS/URTDSM/ SCADA,etc	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)



Financing of Additional Capitalisation

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(Amount in Rs. Lakh)

	Actual/Projected						Admitted					
	2019-20	2020-21	2021-22	2022-23	2023-24		2019-20	2020-21	2021-22	2022-23	2023-24	
Financial Year (Starting of COD)												
Amount capitalized in Work/ Equipment												
Financing Details												
Total Loan	224.49	26.89	0.00	0.00	0.00							
Equity	96.21	11.52	0.00	0.00	0.00							
	320.70	38.41	0.00	0.00	0.00							



(Petitioner)

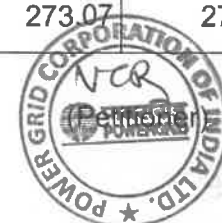
Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(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	1,346.17	1,442.38	1,453.90	1,453.90	1,453.90
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)	1,346.17	1,442.38	1,453.90	1,453.90	1,453.90
Add: Increase in Equity due to addition during the year / period	96.21	11.52	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	1,442.38	1,453.90	1,453.90	1,453.90	1,453.90
Average Normative Equity	1,394.28	1,448.14	1,453.90	1,453.90	1,453.90
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	261.87	271.99	273.07	273.07	273.07
Pro rata return on Equity	261.87	271.99	273.07	273.07	273.07



Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(Amount in Rs. Lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
SBI (2014-15) -ADDCAP					
Gross Loan- Opening	35.23	35.23	35.23	35.23	35.23
Cumulative repayments of Loans upto previous year	0.00	3.52	7.05	10.57	14.09
Net loan-Opening	35.23	31.71	28.18	24.66	21.14
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	3.52	3.52	3.52	3.52	3.52
Net Loan-Closing	31.71	28.19	24.66	21.14	17.62
Average Net Loan	33.47	29.95	26.42	22.90	19.38
Rate of Interest on Loan on Annual Basis	7.993319	6.894349	6.65	7.243625	8.135644
Interest on loan	2.6754	2.0649	1.7569	1.6588	1.5767

SBI (2014-15) -ADDCAP					
Gross Loan- Opening	139.27	139.27	139.27	139.27	139.27
Cumulative repayments of Loans upto previous year	0.00	13.93	27.85	41.78	55.71
Net loan-Opening	139.27	125.34	111.42	97.49	83.56
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	13.93	13.93	13.93	13.93	13.93
Net Loan-Closing	125.34	111.41	97.49	83.56	69.63



Average Net Loan	132.31	118.38	104.46	90.53	76.60
Rate of Interest on Loan on Annual Basis	7.993319	6.894349	6.65	7.243625	8.135644
Interest on loan	10.576	8.1615	6.9466	6.5577	6.2319

SBI (2014-15) -DOCO

Gross Loan- Opening	191.91	191.91	191.91	191.91	191.91
Cumulative repayments of Loans upto previous year	0.00	19.19	38.38	57.57	76.76
Net loan-Opening	191.91	172.72	153.53	134.34	115.15
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	19.19	19.19	19.19	19.19	19.19
Net Loan-Closing	172.72	153.53	134.34	115.15	95.96
Average Net Loan	182.32	163.13	143.94	124.75	105.56
Rate of Interest on Loan on Annual Basis	7.993319	6.894349	6.65	7.243625	8.135644
Interest on loan	14.5734	11.2468	9.572	9.0364	8.588

BOND LIV -DOCO

Gross Loan- Opening	151.00	151.00	151.00	151.00	151.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	50.33	50.33
Net loan-Opening	151.00	151.00	151.00	100.67	100.67
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	50.33	0.00	0.00
Net Loan-Closing	151.00	151.00	100.67	100.67	100.67
Average Net Loan	151.00	151.00	125.84	100.67	100.67
Rate of Interest on Loan on Annual Basis	7.97	7.97	7.97	7.97	7.97
Interest on loan	12.0347	12.0347	10.0294	8.0234	8.0234



BOND LVII (57) -ADDCAP

Gross Loan- Opening	3.44	3.44	3.44	3.44	3.44
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	3.44	3.44
Net loan-Opening	3.44	3.44	3.44	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	3.44	0.00	0.00
Net Loan-Closing	3.44	3.44	0.00	0.00	0.00
Average Net Loan	3.44	3.44	1.72	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
interest on loan	0.2477	0.2477	0.1238	0.00	0.00

BOND LVII (57) -DOCO

Gross Loan- Opening	167.33	167.33	167.33	167.33	167.33
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	167.33	167.33
Net loan-Opening	167.33	167.33	167.33	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	167.33	0.00	0.00
Net Loan-Closing	167.33	167.33	0.00	0.00	0.00
Average Net Loan	167.33	167.33	83.67	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
interest on loan	12.0478	12.0478	6.0242	0.00	0.00

BOND LVII (57) -DOCO

Gross Loan- Opening	254.23	254.23	254.23	254.23	254.23
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	254.23	254.23
Net loan-Opening	254.23	254.23	254.23	0.00	0.00



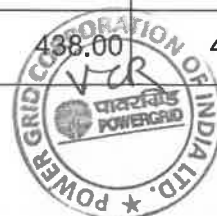
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.00	254.23	0.00	0.00
Net Loan-Closing	254.23	254.23	0.00	0.00	0.00
Average Net Loan	254.23	254.23	127.12	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
Interest on loan	18.3046	18.3046	9.1526	0.00	0.00

BOND 58 -ADDCAP

Gross Loan- Opening	225.43	225.43	225.43	225.43	225.43
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	225.43	225.43	225.43	225.43	225.43
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	225.43	225.43	225.43	225.43	225.43
Average Net Loan	225.43	225.43	225.43	225.43	225.43
Rate of Interest on Loan on Annual Basis	7.89	7.89	7.89	7.89	7.89
Interest on loan	17.7864	17.7864	17.7864	17.7864	17.7864

BOND 59 -DOCO

Gross Loan- Opening	438.00	438.00	438.00	438.00	438.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	438.00	438.00	438.00	438.00	438.00
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	438.00	438.00	438.00	438.00	438.00
Average Net Loan	438.00	438.00	438.00	438.00	438.00



Rate of Interest on Loan on Annual Basis	7.30	7.30	7.30	7.30	7.30
Interest on loan	31.974	31.974	31.974	31.974	31.974

BOND60 (LX) -ADDCAP

Gross Loan- Opening	46.69	46.69	46.69	46.69	46.69
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	46.69	46.69	46.69	46.69	46.69
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	46.69	46.69	46.69	46.69	46.69
Average Net Loan	46.69	46.69	46.69	46.69	46.69
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
Interest on loan	3.3617	3.3617	3.3617	3.3617	3.3617

BOND60 (LX) -DOCO

Gross Loan- Opening	254.00	254.00	254.00	254.00	254.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	254.00	254.00	254.00	254.00	254.00
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	254.00	254.00	254.00	254.00	254.00
Average Net Loan	254.00	254.00	254.00	254.00	254.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
Interest on loan	18.288	18.288	18.288	18.288	18.288

BOND LXI -DOCO



Gross Loan- Opening	474.00	474.00	474.00	474.00	474.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	474.00	474.00	474.00	474.00	474.00
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	474.00	474.00	474.00	474.00	474.00
Average Net Loan	474.00	474.00	474.00	474.00	474.00
Rate of Interest on Loan on Annual Basis	7.74	7.74	7.74	7.74	7.74
Interest on loan	36.6876	36.6876	36.6876	36.6876	36.6876

SBI-03 -ADDCAP

Gross Loan- Opening	10.10	10.10	10.10	10.10	10.10
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	1.02	1.53
Net loan-Opening	10.10	10.10	10.10	9.08	8.57
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	1.02	0.51	1.01
Net Loan-Closing	10.10	10.10	9.08	8.57	7.56
Average Net Loan	10.10	10.10	9.59	8.83	8.07
Rate of Interest on Loan on Annual Basis	7.949727	6.845205	6.65	7.22151	8.129277
Interest on loan	0.8029	0.6914	0.6377	0.6377	0.656

SBI-04 -ADD CAP

Gross Loan- Opening	0.00	3.83	3.83	3.83	3.83
Cumulative repayments of Loans upto previous year	0.00	0.00	0.34	0.36	0.36
Net loan-Opening	0.00	3.83	3.49	3.47	3.47
Add: Drawl(s) during the year	3.83	0.00	0.00	0.00	0.00



Less: Repayment(s) of loan during the year	0.00	0.34	0.02	0.00	0.38
Net Loan-Closing	3.83	3.49	3.47	3.47	3.09
Average Net Loan	1.92	3.66	3.48	3.47	3.28
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	0.1541	0.2526	0.2314	0.2507	0.2666

SBI-04 -ADD CAP FOR 2019-20

Gross Loan- Opening	0.00	43.55	43.55	43.55	43.55
Cumulative repayments of Loans upto previous year	0.00	0.00	3.92	4.11	4.11
Net loan-Opening	0.00	43.55	39.63	39.44	39.44
Add: Drawl(s) during the year	43.55	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	3.92	0.19	0.00	4.36
Net Loan-Closing	43.55	39.63	39.44	39.44	35.08
Average Net Loan	21.78	41.59	39.54	39.44	37.26
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	1.7484	2.8708	2.6294	2.8498	3.028

SBI-04 -ADD CAP FOR 2019-20

Gross Loan- Opening	0.00	1.76	1.76	1.76	1.76
Cumulative repayments of Loans upto previous year	0.00	0.00	0.16	0.17	0.17
Net loan-Opening	0.00	1.76	1.60	1.59	1.59
Add: Drawl(s) during the year	1.76	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	0.16	0.01	0.00	0.18
Net Loan-Closing	1.76	1.60	1.59	1.59	1.41
Average Net Loan	0.88	1.68	1.60	1.59	1.50
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549



Interest on loan	0.0706	0.116	0.1064	0.1149	0.1219
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SBI-04 -ADDCAP

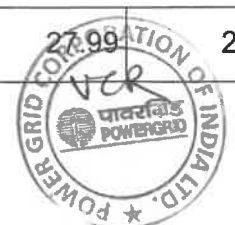
Gross Loan- Opening	193.20	193.20	193.20	193.20	193.20
Cumulative repayments of Loans upto previous year	0.00	0.00	17.39	18.24	18.24
Net loan-Opening	193.20	193.20	175.81	174.96	174.96
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.00	17.39	0.85	0.00	19.32
Net Loan-Closing	193.20	175.81	174.96	174.96	155.64
Average Net Loan	193.20	184.51	175.39	174.96	165.30
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	15.5093	12.736	11.6634	12.6419	13.4332

SBI-04 -ADDCAP

Gross Loan- Opening	273.44	273.44	273.44	273.44	273.44
Cumulative repayments of Loans upto previous year	0.00	0.00	24.61	25.81	25.81
Net loan-Opening	273.44	273.44	248.83	247.63	247.63
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	24.61	1.20	0.00	27.34
Net Loan-Closing	273.44	248.83	247.63	247.63	220.29
Average Net Loan	273.44	261.14	248.23	247.63	233.96
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	21.9507	18.0254	16.5073	17.8928	19.0129

SBI-04 -ADDCAP

Gross Loan- Opening	27.99	27.99	27.99	27.99	27.99
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Cumulative repayments of Loans upto previous year	0.00	0.00	2.52	2.64	2.64
Net loan-Opening	27.99	27.99	25.47	25.35	25.35
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	2.52	0.12	0.00	2.80
Net Loan-Closing	27.99	25.47	25.35	25.35	22.55
Average Net Loan	27.99	26.73	25.41	25.35	23.95
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	2.2469	1.8451	1.6898	1.8317	1.9463

SBI-04 -DOCO

Gross Loan- Opening	162.34	162.34	162.34	162.34	162.34
Cumulative repayments of Loans upto previous year	0.00	0.00	14.61	15.32	15.32
Net loan-Opening	162.34	162.34	147.73	147.02	147.02
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	14.61	0.71	0.00	16.23
Net Loan-Closing	162.34	147.73	147.02	147.02	130.79
Average Net Loan	162.34	155.04	147.38	147.02	138.91
Rate of Interest on Loan on Annual Basis	8.027596	6.902593	6.65	7.225616	8.126549
Interest on loan	13.032	10.7018	9.8008	10.6231	11.2886

ICICI (3270 CR.) (Replaced with Bond LXII) - ADDCAP

Gross Loan- Opening	93.54	93.54	93.54	93.54	93.54
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	93.54	93.54	93.54	93.54	93.54
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	93.54	93.54	93.54	93.54	93.54
Average Net Loan	93.54	93.54	93.54	93.54	93.54
Rate of Interest on Loan on Annual Basis	8.36	8.36	8.36	8.36	8.36
Interest on loan	7.8199	7.8199	7.8199	7.8199	7.8199

Bond - LXIV -ADD CAP FOR 2019-20

Gross Loan- Opening	0.00	175.26	175.26	175.26	175.26
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	0.00	175.26	175.26	175.26	175.26
Add: Drawl(s) during the year	175.26	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	175.26	175.26	175.26	175.26	175.26
Average Net Loan	87.63	175.26	175.26	175.26	175.26
Rate of Interest on Loan on Annual Basis	7.49	7.49	7.49	7.49	7.49
Interest on loan	6.5635	13.127	13.127	13.127	13.127

BOND LXVII -ADD CAP FOR 2020-21

Gross Loan- Opening	0.00	0.00	26.89	26.89	26.89
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	0.00	0.00	26.89	26.89	26.89
Add: Drawl(s) during the year	0.00	26.89	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	26.89	26.89	26.89	26.89
Average Net Loan	0.00	13.45	26.89	26.89	26.89
Rate of Interest on Loan on Annual Basis	6.85	6.85	6.85	6.85	6.85
Interest on loan	0.00	0.9213	1.842	1.842	1.842



Summary

Gross Loan- Opening	3,141.14	3,365.54	3,392.43	3,392.43	3,392.43
Cumulative repayments of Loans upto previous year	0.00	36.64	136.83	652.92	690.07
Net loan-Opening	3,141.14	3,328.90	3,255.60	2,739.51	2,702.36
Add: Drawl(s) during the year	224.40	26.89	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	36.64	100.19	516.09	37.15	108.26
Net Loan-Closing	3,328.90	3,255.60	2,739.51	2,702.36	2,594.10
Average Net Loan	3,235.04	3,292.28	2,997.60	2,720.95	2,648.25
Rate of Interest on Loan on Annual Basis	7.6801	7.3297	7.2644	7.4608	7.7432
interest on loan	248.4556	241.313	217.7583	203.0055	205.0601

(Petitioner)



Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(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	3,141.06	3,365.55	3,392.44	3,392.44	3,392.44
Cumulative repayments of Normative loan upto previous year	221.84	475.18	738.11	1,002.06	1,266.01
Net normative loan-Opening	2,919.22	2,890.37	2,654.33	2,390.38	2,126.43
Addition in normative loan towards the ACE	224.49	26.89	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	253.34	262.93	263.95	263.95	263.95
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	2,890.37	2,654.33	2,390.38	2,126.43	1,862.48
Average normative loan	2,904.80	2,772.35	2,522.36	2,258.41	1,994.46
Weighted Average Rate of interest on actual loan	7.6801	7.3297	7.2644	7.4608	7.7432
Interest on normative loan	223.09	203.20	183.23	168.50	154.44
Pro rata interest on normative loan	223.09	203.20	183.23	168.50	154.44

(Petitioner)



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCOC Date	Jan 26, 2018

(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
2019-20						
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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,140.22	299.14	4,439.36	4,289.79	5.28	226.50
Comm. Sys. excluding Fiber Optic	298.63	21.50	320.13	309.38	6.33	19.58
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	48.37	0.06	48.43	48.40	15.00	7.26
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
TOTAL	4,487.22	320.70	4,807.92	4,647.57	0.00	253.34
Weighted Average Rate of Depreciation(%)					5.451021	

2020-21						
Land(Freehold)	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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,439.36	38.41	4,477.77	4,458.57	5.28	235.41
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	6.33	20.26
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	7.26
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
TOTAL	4,807.92	38.41	4,846.33	4,827.13	0.00	262.93
Weighted Average Rate of Depreciation(%)					5.446922	

2021-22						
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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	6.33	20.26
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	7.26
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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	263.95
Weighted Average Rate of Depreciation(%)					5.446389	



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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	6.33	20.26
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	7.26
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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	263.95
Weighted Average Rate of Depreciation(%)					5.446389	

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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	6.33	20.26
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	7.26
Batteries	0.00	0.00	0.00	0.00	5.28	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00		0.00
TOTAL	4,846.33	0.00	4,846.33	4,846.33		263.95



Weighted Average Rate of Depreciation(%)					5.446389	
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(Petitioner)



124

Statement of Depreciation

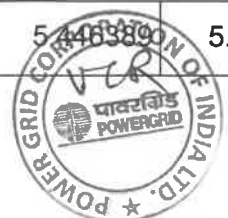
Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOCO Date	Jan 26, 2018		

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/ Project	24.00	24.00	24.00	24.00	24.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	1.00	2.00	3.00	4.00	5.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	23.00	22.00	21.00	20.00	19.00
Capital Base					
1.4 Opening capital cost	4,487.22	4,807.92	4,846.33	4,846.33	4,846.33
1.5 Additional Capital Expenditure dr. the year	320.70	38.41	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	4,807.92	4,846.33	4,846.33	4,846.33	4,846.33
1.8 Average capital cost	4,647.57	4,827.13	4,846.33	4,846.33	4,846.33
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	48.40	48.43	48.43	48.43	48.43
1.11 Asset having 10% salvage value included in 1.8	4,599.17	4,778.70	4,797.90	4,797.90	4,797.90
1.12 Depreciable Value(1.10+90% of 1.11)	4,187.65	4,349.26	4,366.54	4,366.54	4,366.54
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	5.451021	5.446922	5.446389	5.446389	5.446389

125



1.14 Depreciation(for the period)	253.34	262.93	263.95	263.95	263.95
1.15 Depreciation(Annualised)	253.34	262.93	263.95	263.95	263.95
1.16 Cumulative depreciation at the beginning of the period	221.84	475.18	738.11	1,002.06	1,266.01
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	475.18	738.11	1,002.06	1,266.01	1,529.96
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00

(Petitioner)

126



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC0 Date	Jan 26, 2018

(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	16.08	16.64	17.23	17.83	18.46
Maintenance spares 15% of O&M Expenses	28.94	29.95	31.01	32.09	33.22
Receivables equivalent to 45 days of AFC	116.89	117.90	116.41	115.50	114.70
Total Working capital	161.91	164.49	164.65	165.42	166.38
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	19.51	18.51	17.29	17.37	19.97
Pro rata interest on working capital	19.51	18.51	17.29	17.37	19.97

(Petitioner)



127

Summary of Tariff

Form No. - 1

Name of the Transmission Licensee:	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(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	291.71	286.61	284.45	255.24	236.43
Interest on Loan-Form No. 9E	132.99	110.33	87.84	67.47	49.27
Return on Equity-Form No. 8	273.07	273.07	273.07	273.07	273.07
Int. on Working capital-Form No.11	19.15	19.20	19.31	19.05	19.07
Op. and maintenance-Form No.2	203.38	214.08	225.26	237.08	249.58
Total AFC	920.30	903.29	889.93	851.91	827.42

(Petitioner)



Summary of Asset Level Cost

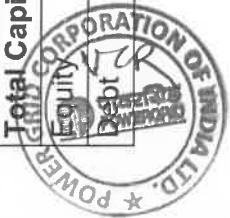
Name of the Transmission Licensee	Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX	
Element Description	Combined element of NRSS XXIX	
Region	Northern Region	DOC Date Jan 26, 2018

A) Summary of Capital Cost, Means of Finance of the Asset

(Amount in Rs. Lakh)

Particular	i) Apportioned Approved Cost		ii) Summary of Actual / Projected Capital Expenditure Incurred						
	As Per IA	As per RCE	As on COD / 01.04.2024	2024-25	2025-26	2026-27	2027-28	2028-29	As on 31.03.2029
Land (Freehold Land)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building & Civil Works	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Substations	0.00	0.00	4,477.77	0.00	0.00	0.00	0.00	0.00	4,477.77
Comm. Sys. excluding Fiber Optic	0.00	0.00	320.13	0.00	0.00	0.00	0.00	0.00	320.13
Land (Leasehold)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT/Software/LUNMS/URTDSM/	0.00	0.00	48.43	0.00	0.00	0.00	0.00	0.00	48.43
Batteries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fiber Optic/OPGW	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Cost as per Books	0.00	0.00	4,846.33	0.00	0.00	0.00	0.00	0.00	4,846.33
Less: Liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add: discharge of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
De cap During Year As per Books	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital incurred	0.00	0.00	4,846.33	0.00	0.00	0.00	0.00	0.00	4,846.33
Equity	1,722.00	0.00	1,453.89	0.00	0.00	0.00	0.00	0.00	1,453.89
Debt	4,018.00	0.00	3,392.44	0.00	0.00	0.00	0.00	0.00	3,392.44

12



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

1. Transmission Lines

(Amount in Rs. Lakh)

Summary:

130



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		
Jallandhar:SAMBHA I & II BAY	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:JALLANDHAR I & II BAY	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:AMARGARH-I & II	Conventional	400 KV		2.000								Jan 26, 2018	Y
Samba:2X50 MVAR SAMBA-AMARGARH LINE REACTORS		400 KV	2.000							50.000		Jan 26, 2018	Y

Summary:

O&M Expenses For Substations Covered in the instant petition	2024-25	2025-26	2026-27	2027-28	2028-29
400KV SUB-STATION					
Normative Rate of O&M as per Regulation	29.53	31.08	32.71	34.43	36.23
Normative Rate of O&M as per Regulation	6.00	6.00	6.00	6.00	6.00
Normative Rate of O&M as per Regulation	177.18	186.48	196.26	206.58	217.38
400KV Sub-station Reactor					
Normative Rate of O&M as per Regulation	0.262	0.276	0.29	0.305	0.322



No. of Units	2.00	2.00	2.00	2.00	2.00	2.00
O&M Claimed	26.20	27.60	29.00	30.50	32.20	

132



3. Communication System

Summary:

133



Summary of O&M Expenses claim

(Amount in Rs. Lakh)

Particular	2024-25	2025-26	2026-27	2027-28	2028-29
A) Normative O&M					
Transmission Line	0.00	0.00	0.00	0.00	0.00
Substation	203.38	214.08	225.26	237.08	249.58
Communication System	0.00	0.00	0.00	0.00	0.00
Total Normative O&M	203.38	214.08	225.26	237.08	249.58
B) O&M Claimed under Regulation 35 (3)(C) (* The same is not being claimed and will be claimed through separate Petition)					
*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
Total O&M	203.38	214.08	225.26	237.08	249.58

134

(Petitioner)



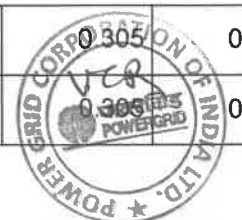
Normative parameters considered for tariff computations

Form No. - 3

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCOS Date	Jan 26, 2018

(Amount in Rs. Lakh)

Particulars	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29
Base Rate of Return of Equity (in %)						
Tax Rate (in %)	17.472	17.472	17.472	17.472	17.472	17.472
Effective tax rate (in %)						
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
Norms for sub-station Bays (Rs Lakh per bay)						
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
Norms for Transformers (Rs Lakh per MVA)						
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
Norms for Reactor (Rs Lakh per MVAR)						
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
Norms for AC and HVDC lines (Rs Lakh per km)						
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
Norms for HVDC stations (Rs Lakh/MW)						
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

(Petitioner)



Name of the Transmission Licensee		Power Grid Corporation of India Limited	
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC Date	Jan 26, 2018

A) Details of All the Asset Covered under the Scope of the Project

(Amount in Rs. Lakh)

Asset Name	Actual COD of the asset	COD considered for tariff purpose	Effective COD for the project as whole (Refer C)	Weighted Average useful life of the project (Refer D)	Lapsed useful Life of the project as on 01.04.2024 (Refer E)	Balance useful Life of the project as on 01.04.2024 (Refer E)
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension		Dec 11, 2016				
02 Nos. 400 KV BAYS AT Samba for Amargarth (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac		Aug 26, 2018				
Summary			Feb 3, 2018	24	6	18

B) Details as on 01.04.2024 for determination of Single Tariff for the Project Commissioned prior to 01.04.2024

Asset Name	Capital Cost as on 31.03.2024	Cumulative Dep. as on 31.03.2024	Debt Equity Ratio as on 31.03.2024	Gross Equity for normative ROE as on 31.03.2024	Gross Loan as on 31.03.2024	Cumulative Re-payment of Loan as on 31.03.2024
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension	1,602.36	0.00	0:0	0.00	0.00	0.00
02 Nos. 400 KV BAYS AT Samba for Amargarth (NRSS-XXIX) to Samba (POWERGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac	3,295.18	971.02	70:30	988.55	2,306.63	971.02



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Total	4,897.54	971.02	70:30	988.55	2,306.63	971.02
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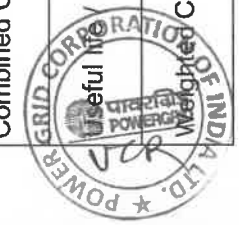
C) Computation of Effective COD for determining lapsed useful life of the project as whole

Asset Name	Actual COD of the asset	COD considered for tariff purpose	No of days between the COD of the asset considered for tariff and the COD of the Project	True Up Capital Cost as on 31.03.2024	Weight of the Cost of an asset (in %)	Weighted Days
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension		Dec 11, 2016	623	1,602.36	32.7176501	203.83096
02 Nos. 400 KV BAYS AT Samba for Amargarh (NRSS-XXIX) to Samba (POWRGRID) TL along with 02 Nos. 50 MVAR Non Switchable line reac		Aug 26, 2018	0	3,295.18	67.2823499	0
Total			623	4,897.54	100	203.83096
Effective COD	Feb 3, 2018					

D) Weighted Average useful Life of the Project as whole

Asset Name	Freehold Land	Building & Other Civil Works	Transmission Lines	Sub-Station Equipments	PLCC	Leasehold Land	IT Equipment & S/W	Batteries	Fiber Optic/OPGW	Total Cost
02 No. 400 KV Line bays 400/220 KV Samba & Jallandhar Substation Extension	0.00	0.00	0.00	1,362.37	223.84	0.00	16.15	0.00	0.00	1,602.36
02 Nos. 400 KV BAYS AT Samba for Amargarh (NRSS-XXIX) to Samba (POWRGRID) TL along with 02 Nos.	0.00	0.00	0.00	3,166.58	96.31	0.00	32.29	0.00	0.00	3,295.18
Combined Cost	0.00	0.00	0.00	4,528.95	320.15	0.00	48.44	0.00	0.00	4,897.54
Useful life / Extended life	0.00	25.00	35.00	25.00	15.00	25.00	25.00	0.00	0.00	0.00
Weighted Cost	0.00	0.00	0.00	113,223.75	4,802.25	0.00	1,211.00	0.00	0.00	119,237.00

W 2



Weighted Average Life

24.00

E) Lapsed Weighted average useful life of the project & Balance weighted average Useful life
This refers to the No. of completed years from the effective COD till the last day of the previous tariff period (i.e. 31.03.2024)

1) Effective COD	Feb 3, 2018
2) Last date of the previous tariff control period	Mar 31, 2024
3) No. of Completed years lapsed as on 01.04.2024 (2) - (1)	6
4) Remaining useful life (in year) (WAL-lapsed year)	18

(Petitioner)

139



Statement of Capital cost

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(Amount in Rs. Lakh)

A) Capital Cost	Particular	Accrual Basis	Un-discharged Liabilities	Cash Basis
As on relevant date :2024-25				
a)	Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b)	Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c)	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
As on relevant date :2025-26				
a)	Addition in Gross Block Amount during the period	0.00	0.00	0.00
b)	Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c)	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d)	De-cap in gross block amount during the year	0.00	0.00	0.00
As on relevant date :2025-26				
a)	Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b)	Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c)	Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00
As on relevant date :2025-26				
a)	Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b)	Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00

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c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00
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a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2026-27

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2027-28

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00



171

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

As on relevant date :2028-29

a) Opening Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in A(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in A(a) above	0.00	0.00	0.00

a) Addition in Gross Block Amount during the period	0.00	0.00	0.00
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in B(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in B(a) above	0.00	0.00	0.00
d) De-cap in gross block amount during the year	0.00	0.00	0.00

a) Closing Gross Block Amount as per books	4,846.33	0.00	4,846.33
b) Amount of (i) IDC (ii) FC (iii) FERV & (iv) Hedging cost included in C(a) above	0.00	0.00	0.00
c) Amount of IEDC (excluding IDC, FC, FERV & Hedging cost) included in C(a) above	0.00	0.00	0.00

Flow of liability for the Asset

(Amount in Rs. Lakh)

Particular							
Opening balance of liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add: Liability from ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00



142

Discharge of liability by payment and claimed as ACE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reversal/cancellation (to be entered)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance of Admitted liability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

(Petitioner)

143



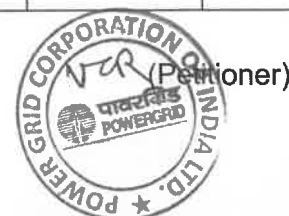
Calculation of ROE

Form No. - 8

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(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	1,453.90	1,453.90	1,453.90	1,453.90	1,453.90
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)	1,453.90	1,453.90	1,453.90	1,453.90	1,453.90
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	1,453.90	1,453.90	1,453.90	1,453.90	1,453.90
Average Normative Equity	1,453.90	1,453.90	1,453.90	1,453.90	1,453.90
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	273.07	273.07	273.07	273.07	273.07
Return on Equity	273.07	273.07	273.07	273.07	273.07



Calculation of WAR of interest on actual loan

Form No. - 9C

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(Amount in Rs. Lakh)

Particulars	2024-25	2025-26	2026-27	2027-28	2028-29
SBI (2014-15) -ADDCAP					
Gross Loan- Opening	35.23	35.23	35.23	35.23	35.23
Cumulative repayments of Loans upto previous year	17.62	21.14	24.66	28.18	31.71
Net loan-Opening	17.61	14.09	10.57	7.05	3.52
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	3.52	3.52	3.52	3.52	3.52
Net Loan-Closing	14.09	10.57	7.05	3.53	0.00
Average Net Loan	15.85	12.33	8.81	5.29	1.76
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	1.2997	1.0111	0.7224	0.4338	0.1443

SBI (2014-15) -ADDCAP					
Gross Loan- Opening	139.27	139.27	139.27	139.27	139.27
Cumulative repayments of Loans upto previous year	69.64	83.56	97.49	111.42	125.34
Net loan-Opening	69.63	55.71	41.78	27.85	13.93
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	13.93	13.93	13.93	13.93	13.93
Net Loan-Closing	55.70	41.78	27.85	13.92	0.00



Average Net Loan	62.67	48.75	34.82	20.89	6.97
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	5.1389	3.9975	2.8552	1.713	0.5715

SBI (2014-15) -DOCO

Gross Loan- Opening	191.91	191.91	191.91	191.91	191.91
Cumulative repayments of Loans upto previous year	95.96	115.15	134.34	153.53	172.72
Net loan-Opening	95.95	76.76	57.57	38.38	19.19
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	19.19	19.19	19.19	19.19	19.19
Net Loan-Closing	76.76	57.57	38.38	19.19	0.00
Average Net Loan	86.36	67.17	47.98	28.79	9.60
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	7.0815	5.5079	3.9344	2.3608	0.7872

BOND LIV -DOCO

Gross Loan- Opening	151.00	151.00	151.00	151.00	151.00
Cumulative repayments of Loans upto previous year	50.33	50.33	50.33	100.67	100.67
Net loan-Opening	100.67	100.67	100.67	50.33	50.33
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	50.33	0.00	0.00
Net Loan-Closing	100.67	100.67	50.34	50.33	50.33
Average Net Loan	100.67	100.67	75.51	50.33	50.33
Rate of Interest on Loan on Annual Basis	7.97	7.97	7.97	7.97	7.97
Interest on loan	8.0234	8.0234	6.0181	4.0113	4.0113



148

BOND LVII (57) -ADDCAP

Gross Loan- Opening	3.44	3.44	3.44	3.44	3.44
Cumulative repayments of Loans upto previous year	3.44	3.44	3.44	3.44	3.44
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	7.20	7.20	7.20	7.20	7.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND LVII (57) -DOCO

Gross Loan- Opening	167.33	167.33	167.33	167.33	167.33
Cumulative repayments of Loans upto previous year	167.33	167.33	167.33	167.33	167.33
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	7.20	7.20	7.20	7.20	7.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND LVII (57) -DOCO

Gross Loan- Opening	254.23	254.23	254.23	254.23	254.23
Cumulative repayments of Loans upto previous year	254.23	254.23	254.23	254.23	254.23
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	7.20	7.20	7.20	7.20	7.20
Interest on loan	0.00	0.00	0.00	0.00	0.00

BOND 58 -ADDCAP

Gross Loan- Opening	225.43	225.43	225.43	225.43	225.43
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	225.43	225.43
Net loan-Opening	225.43	225.43	225.43	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	225.43	0.00	0.00
Net Loan-Closing	225.43	225.43	0.00	0.00	0.00
Average Net Loan	225.43	225.43	112.72	0.00	0.00
Rate of Interest on Loan on Annual Basis	7.89	7.89	7.89	7.89	7.89
Interest on loan	17.7864	17.7864	8.8936	0.00	0.00

BOND 59 -DOCO

Gross Loan- Opening	438.00	438.00	438.00	438.00	438.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	438.00
Net loan-Opening	438.00	438.00	438.00	438.00	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	438.00	0.00
Net Loan-Closing	438.00	438.00	438.00	0.00	0.00
Average Net Loan	438.00	438.00	438.00	219.00	0.00



Rate of Interest on Loan on Annual Basis	7.30	7.30	7.30	7.30	7.30
Interest on loan	31.974	31.974	31.974	15.987	0.00

BOND60 (LX) -ADDCAP

Gross Loan- Opening	46.69	46.69	46.69	46.69	46.69
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	46.69
Net loan-Opening	46.69	46.69	46.69	46.69	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	46.69	0.00
Net Loan-Closing	46.69	46.69	46.69	0.00	0.00
Average Net Loan	46.69	46.69	46.69	23.35	0.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
Interest on loan	3.3617	3.3617	3.3617	1.6812	0.00

BOND60 (LX) -DOCO

Gross Loan- Opening	254.00	254.00	254.00	254.00	254.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	254.00
Net loan-Opening	254.00	254.00	254.00	254.00	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	254.00	0.00
Net Loan-Closing	254.00	254.00	254.00	0.00	0.00
Average Net Loan	254.00	254.00	254.00	127.00	0.00
Rate of Interest on Loan on Annual Basis	7.20	7.20	7.20	7.20	7.20
Interest on loan	18.288	18.288	18.288	9.144	0.00

BOND LXI -DOCO



Gross Loan- Opening	474.00	474.00	474.00	474.00	474.00
Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	0.00	0.00
Net loan-Opening	474.00	474.00	474.00	474.00	474.00
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	94.80
Net Loan-Closing	474.00	474.00	474.00	474.00	379.20
Average Net Loan	474.00	474.00	474.00	474.00	426.60
Rate of Interest on Loan on Annual Basis	7.74	7.74	7.74	7.74	7.74
Interest on loan	36.6876	36.6876	36.6876	36.6876	33.0188

SBI-03 -ADDCAP

Gross Loan- Opening	10.10	10.10	10.10	10.10	10.10
Cumulative repayments of Loans upto previous year	2.54	3.55	4.56	5.57	6.58
Net loan-Opening	7.56	6.55	5.54	4.53	3.52
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	1.01	1.01	1.01	1.01	1.01
Net Loan-Closing	6.55	5.54	4.53	3.52	2.51
Average Net Loan	7.06	6.05	5.04	4.03	3.02
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	0.5789	0.4961	0.4133	0.3305	0.2476

SBI-04 -ADD CAP

Gross Loan- Opening	3.83	3.83	3.83	3.83	3.83
Cumulative repayments of Loans upto previous year	0.74	1.13	1.51	1.89	2.28
Net loan-Opening	3.09	2.70	2.32	1.94	1.55
Add: Drawl(s) during the year	0.00	0.00	0.00		0.00



Less: Repayment(s) of loan during the year	0.38	0.38	0.38	0.38	0.38
Net Loan-Closing	2.71	2.32	1.94	1.56	1.17
Average Net Loan	2.90	2.51	2.13	1.75	1.36
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	0.2378	0.2058	0.1747	0.1435	0.1115

SBI-04 -ADD CAP FOR 2019-20

Gross Loan- Opening	43.55	43.55	43.55	43.55	43.55
Cumulative repayments of Loans upto previous year	8.47	12.82	17.18	21.53	25.89
Net loan-Opening	35.08	30.73	26.37	22.02	17.66
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	4.36	4.36	4.36	4.36	4.36
Net Loan-Closing	30.72	26.37	22.01	17.66	13.30
Average Net Loan	32.90	28.55	24.19	19.84	15.48
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	2.6978	2.3411	1.9836	1.6269	1.2694

SBI-04 -ADD CAP FOR 2019-20

Gross Loan- Opening	1.76	1.76	1.76	1.76	1.76
Cumulative repayments of Loans upto previous year	0.34	0.52	0.69	0.87	1.05
Net loan-Opening	1.42	1.24	1.07	0.89	0.71
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	0.18	0.18	0.18	0.18	0.18
Net Loan-Closing	1.24	1.06	0.89	0.71	0.53
Average Net Loan	1.33	1.15	0.98	0.80	0.62
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20



Interest on loan	0.1091	0.0943	0.0804	0.0656	0.0508
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SBI-04 -ADDCAP

Gross Loan- Opening	193.20	193.20	193.20	193.20	193.20
Cumulative repayments of Loans upto previous year	37.56	56.88	76.20	95.52	114.84
Net loan-Opening	155.64	136.32	117.00	97.68	78.36
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	19.32	19.32	19.32	19.32	19.32
Net Loan-Closing	136.32	117.00	97.68	78.36	59.04
Average Net Loan	145.98	126.66	107.34	88.02	68.70
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	11.9704	10.3861	8.8019	7.2176	5.6334

SBI-04 -ADDCAP

Gross Loan- Opening	273.44	273.44	273.44	273.44	273.44
Cumulative repayments of Loans upto previous year	53.16	80.50	107.84	135.19	162.53
Net loan-Opening	220.28	192.94	165.60	138.25	110.91
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	27.34	27.34	27.34	27.34	27.34
Net Loan-Closing	192.94	165.60	138.26	110.91	83.57
Average Net Loan	206.61	179.27	151.93	124.58	97.24
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	16.942	14.7001	12.4583	10.2156	7.9737

SBI-04 -ADDCAP

Gross Loan- Opening	27.99	27.99	27.99	27.99	27.99
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Cumulative repayments of Loans upto previous year	5.44	8.24	11.04	13.84	16.64
Net loan-Opening	22.55	19.75	16.95	14.15	11.35
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	2.80	2.80	2.80	2.80	2.80
Net Loan-Closing	19.75	16.95	14.15	11.35	8.55
Average Net Loan	21.15	18.35	15.55	12.75	9.95
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	1.7343	1.5047	1.2751	1.0455	0.8159

SBI-04 -DOCO

Gross Loan- Opening	162.34	162.34	162.34	162.34	162.34
Cumulative repayments of Loans upto previous year	31.56	47.79	64.03	80.26	96.49
Net loan-Opening	130.78	114.55	98.31	82.08	65.85
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	16.23	16.23	16.23	16.23	16.23
Net Loan-Closing	114.55	98.32	82.08	65.85	49.62
Average Net Loan	122.67	106.44	90.20	73.97	57.74
Rate of Interest on Loan on Annual Basis	8.20	8.20	8.20	8.20	8.20
Interest on loan	10.0589	8.7281	7.3964	6.0655	4.7347

ICICI (3270 CR.) (Replaced with Bond LXII) - ADDCAP

Gross Loan- Opening	93.54	93.54	93.54	93.54	93.54
Cumulative repayments of Loans upto previous year	0.00	18.71	37.42	56.12	74.83
Net loan-Opening	93.54	74.83	56.12	37.42	18.71
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	18.71	18.71	18.71	18.71	18.71



Net Loan-Closing	74.83	56.12	37.41	18.71	0.00
Average Net Loan	84.19	65.48	46.77	28.07	9.36
Rate of Interest on Loan on Annual Basis	8.36	8.36	8.36	8.36	8.36
Interest on loan	7.0383	5.4741	3.91	2.3467	0.7825

Bond - LXIV -ADD CAP FOR 2019-20

Gross Loan- Opening	175.26	175.26	175.26	175.26	175.26
Cumulative repayments of Loans upto previous year	0.00	52.58	52.58	52.58	52.58
Net loan-Opening	175.26	122.68	122.68	122.68	122.68
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	52.58	0.00	0.00	0.00	0.00
Net Loan-Closing	122.68	122.68	122.68	122.68	122.68
Average Net Loan	148.97	122.68	122.68	122.68	122.68
Rate of Interest on Loan on Annual Basis	7.49	7.49	7.49	7.49	7.49
Interest on loan	11.1579	9.1887	9.1887	9.1887	9.1887

BOND LXVII -ADD CAP FOR 2020-21

Gross Loan- Opening	26.89	26.89	26.89	26.89	26.89
Cumulative repayments of Loans upto previous year	0.00	0.00	26.89	26.89	26.89
Net loan-Opening	26.89	26.89	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	26.89	0.00	0.00	0.00
Net Loan-Closing	26.89	0.00	0.00	0.00	0.00
Average Net Loan	26.89	13.45	0.00	0.00	0.00
Rate of Interest on Loan on Annual Basis	6.85	6.85	6.85	6.85	6.85
Interest on loan	1.842	0.9213	0.00	0.00	0.00



Summary

Gross Loan- Opening	3,392.43	3,392.43	3,392.43	3,392.43	3,392.43
Cumulative repayments of Loans upto previous year	798.36	977.90	1,131.76	1,534.49	2,400.16
Net loan-Opening	2,594.07	2,414.53	2,260.67	1,857.94	992.27
Add: Drawl(s) during the year	0.00	0.00	0.00	0.00	0.00
Less: Repayment(s) of loan during the year	179.55	153.86	402.73	865.66	221.77
Net Loan-Closing	2,414.52	2,260.67	1,857.94	992.28	770.50
Average Net Loan	2,504.32	2,337.63	2,059.34	1,425.14	881.41
Rate of Interest on Loan on Annual Basis	7.747	7.7291	7.6926	7.7371	7.8671
Interest on loan	194.0086	180.678	158.4174	110.2648	69.3413

(Petitioner)



Calculation of interest on Normative loan

Form No. - 9E

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOC Date	Jan 26, 2018

(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	3,392.44	3,392.44	3,392.44	3,392.44	3,392.44
Cumulative repayments of Normative loan upto previous year	1,529.96	1,821.67	2,108.28	2,392.73	2,647.97
Net normative loan-Opening	1,862.48	1,570.77	1,284.16	999.71	744.47
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	291.71	286.61	284.45	255.24	236.43
Adjustment of cumulative repayment pertaining to the decapitalised asset	0.00	0.00	0.00	0.00	0.00
Net normative loan - closing	1,570.77	1,284.16	999.71	744.47	508.04
Average normative loan	1,716.63	1,427.47	1,141.94	872.09	626.26
Weighted Average Rate of interest on actual loan	7.747	7.7291	7.6926	7.7371	7.8671
Interest on normative loan	132.99	110.33	87.84	67.47	49.27
Pro rata interest on normative loan	132.99	110.33	87.84	67.47	49.27

(Petitioner)



Calculation of Depreciation Rate on Original Project Cost

Form No. - 10

Name of the Transmission Licensee	Power Grid Corporation of India Limited		
Project	Northern Region System Strengthening Scheme-XXIX		
Element Description	Combined element of NRSS XXIX		
Region	Northern Region	DOCO Date	Jan 26, 2018

(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
2024-25						
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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	15.00	48.02
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	7.26
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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	291.71
Weighted Average Rate of Depreciation(%)					6.019194	

2025-26						
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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	15.00	48.02
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	15.00	2.16
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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	286.61
Weighted Average Rate of Depreciation(%)					5.91396	

2026-27						
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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	15.00	48.02
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDISM/SCADA,etc	48.43	0.00	48.43	48.43	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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	284.45
Weighted Average Rate of Depreciation(%)					5.86939	

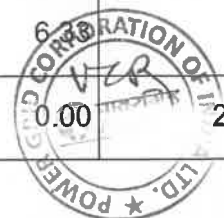


2027-28

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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	15.00	18.81
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	48.43	0.00	48.43	48.43	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
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	255.24
Weighted Average Rate of Depreciation(%)					5.266666	

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	0.00	0.00	0.00	0.00	5.28	0.00
Sub Station	4,477.77	0.00	4,477.77	4,477.77	5.28	236.43
Comm. Sys. excluding Fiber Optic	320.13	0.00	320.13	320.13	15.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	3.34	0.00
IT/Software/UNMS/URTDSM/SCADA,etc	48.43	0.00	48.43	48.43	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	0.00	0.00
TOTAL	4,846.33	0.00	4,846.33	4,846.33	0.00	236.43



Weighted Average Rate of Depreciation(%)					4.878537	
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(Petitioner)



Statement of Depreciation

Form No. - 10A

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(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
Life at the beginning of the year					
1.1 Weighted Average useful life of the Asset/ Project	24.00	24.00	24.00	24.00	24.00
1.2 Lapsed Weighted Average useful life of the Asset/Project(in completed no. of year)	6.00	7.00	8.00	9.00	10.00
1.3 Balance Weighted Average useful life of the Asset/Project(in completed no. of year)	18.00	17.00	16.00	15.00	14.00
Capital Base					
1.4 Opening capital cost	4,846.33	4,846.33	4,846.33	4,846.33	4,846.33
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	4,846.33	4,846.33	4,846.33	4,846.33	4,846.33
1.8 Average capital cost	4,846.33	4,846.33	4,846.33	4,846.33	4,846.33
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	48.43	48.43	48.43	48.43	48.43
1.11 Asset having 10% salvage value included in 1.8	4,797.90	4,797.90	4,797.90	4,797.90	4,797.90
1.12 Depreciable Value(1.10+90% of 1.11)	4,366.54	4,366.54	4,366.54	4,366.54	4,366.54
Depreciation for the period and Cum. Depreciation					
1.13 Weighted Average Rate of depreciation	6.019194	5.91396	5.86939	5.766656	4.878537



1.14 Depreciation(for the period)	291.71	286.61	284.45	255.24	236.43
1.15 Depreciation(Annualised)	291.71	286.61	284.45	255.24	236.43
Unrecovered Depreciation for DECAP	0.00	0.00	0.00	0.00	0.00
1.16 Cumulative depreciation at the beginning of the period	1,529.96	1,821.67	2,108.28	2,392.73	2,647.97
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	1,821.67	2,108.28	2,392.73	2,647.97	2,884.40

(Petitioner)



Calculation of interest on working Capital

Form No. - 11

Name of the Transmission Licensee	Power Grid Corporation of India Limited				
Project	Northern Region System Strengthening Scheme-XXIX				
Element Description	Combined element of NRSS XXIX				
Region	Northern Region	DOC Date	Jan 26, 2018		

(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	16.95	17.84	18.77	19.76	20.80
Maintenance spares 15% of O&M Expenses	30.51	32.11	33.79	35.56	37.44
Receivables equivalent to 45 days of AFC	113.46	111.36	109.72	104.74	102.01
Total Working capital	160.92	161.31	162.28	160.06	160.25
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	19.15	19.20	19.31	19.05	19.07
Pro rata interest on working capital	19.15	19.20	19.31	19.05	19.07

(Petitioner)



163

Summary of Capital Cost & Annual Fixed Cost (AFC) Claimed for ALL the assets covered in the present petition.																	
Power Grid Corporation of India Ltd																	
2024-29																	
Asset-1: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 400 kV Line Bays at Jallandhar Substation & Asset-2: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 50 MVAR Line Reactor at Samba Sub-station under Strengthening Scheme – XXIX in the Northern Region.																	
Asset-1: 11.12.2016 Asset-2: 26.08.2018																	
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	i) Apportioned Approved Cost			ii) Summary of Actual / Projected Capital Cost										
				As per Investment approval	As per RCE	As on COD/ 31.03.2024	2024-25	2025-26	2026-27	2027-28	2028-29	Capital Cost as on 31.03.2029	Total Completion Cost				
1	Asset-1	11.12.2016	31.03.2019	5740	-	4846.33	0	0	0	0	0	0	0	0	0	4846.33	4846.33
	Asset-2	26.08.2018	31.03.2021														
Total Capital Cost Claimed				5740	-	4846.33	0	0	0	0	0	0	0	0	0	4846.33	4846.33
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															
1	Combined Asset	Asset-1: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 400 kV Line Bays at Jallandhar Substation and Asset-2: 2 numbers 400 kV Line Bays at Samba Sub-station and 2 numbers 50 MVAR Line Reactor at Samba Sub-station															
Total AFC for all the Assets		920.30	903.29	889.93	851.91	827.42	827.42	827.42	827.42	827.42	827.42	827.42	827.42	827.42	827.42	827.42	827.42
Note: 1) The purpose of this form is to summarise the Capital cost & AFC claimed for all the assets covered in the instant petition.																	



(Signature)

(Petitioner)

Summary of issue involved in the petition

**PART-III
FORM- 15**

1. Name of the Petitioner	Power Grid Corporation of India Ltd
2. Petition Category	Transmission
3. Tariff Period	2024-29
4. Name of the Project	System Strengthening Scheme - XXIX in the Northern Region
5. Investment Approval date	12.01.2016
6. SCOD of the Project	Asset-I: 13.07.2017 Asset-II:12.11.2018
7. Actual COD of the project	01.08.2005
8. Whether entire scope is covered in the present petition.	Yes
9. No. of Assets covered in instant petition	2
10. No. of Assets having time over run	Nil
11. Estimated Project Cost as per IA	Rs.57.40 Cr
12. Is there any REC? if so, provide the date	NIL
13. Revised Estimated Project Cost (if any)	NA
14. Completion cost for all the assets covered in the instant petition.	Rs.48.46 Cr
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	UTTAR PRADESH POWER CORPORATION LTD.
2	AJMER VIDYUT VITRAN NIGAM LTD
3	JAIPUR VIDYUT VITRAN NIGAM LTD
4	JODHPUR VIDYUT VITRAN NIGAM LTD
5	HIMACHAL PRADESH STATE ELECTRICITY BOARD Ltd.
6	PUNJAB STATE POWER CORPORATION LIMITED
7	HARYANA POWER PURCHASE CENTRE
8	JAMMU KASHMIR POWER CORPORATION LIMITED
9	BSES YAMUNA POWER Ltd
10	BSES RAJDHANI POWER Ltd
11	TATA POWER DELHI DISTRIBUTION LTD
12	CHANDIGARH ELECTRICITY DEPTT
13	UTTARAKHAND POWER CORPORATION LTD
14	NORTH CENTRAL RAILWAY
15	NEW DELHI MUNICIPAL COUNCIL

(Petitioner)



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

PART-III

Form No.	Title of Tariff Filing Forms (Transmission & Communication System)	Tick
FORM- 1	Summary of Tariff	✓
FORM- 1A	Summary of Asset level cost	✓
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.	✓
FORM- 4A	Statement of Capital cost	✓
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	✓
FORM- 7A	Financing of Additional Capitalisation	✓
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	✓
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	✓
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.	NA
5	Copies of the Equity participation agreements and necessary approval for the foreign equity.	NA
6	Copies of the BPTA/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	NA
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.		

(Petitioner)

167

