

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 649/TT/2020

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Ramesh Babu V., Member**

Date of Order: 02.08.2024

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of transmission tariff for 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset I** - 1X1500 MVA 765/400 kV ICT-II alongwith associated bays and 2 Nos. 400 kV Line Bays for termination of 400 kV D/C Prithala-Aligarh TCB Line at Aligarh 765 kV Switching Sub-station and **Asset II** - 1X1500 MVA 765/400 kV ICT-I at Aligarh 765 kV Switching Sub-station under "ICTs and Bays Associated with Northern Region System Strengthening Scheme (NRSS-XXXVIII)".

And in the matter of:

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

.... Petitioner

Vs.

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005 (Rajasthan).
2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
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 (Himachal Pradesh).
6. Punjab State Electricity Board,
Thermal Shed Tia,
Near 22 Phatak,
Patiala-147001 (Punjab).
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).
8. Power Development Department,
Government 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 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran, Building (Near Karkadooma Court),
Karkadooma 2nd Floor,
New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited,
NDPL house, Hudson Lines Kingsway Camp,
Delhi-110009.
14. Chandigarh Administration,
Sector-9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan,
Kanwali Road, Dehradun (Uttarakhand).



16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. Gurgaon-Palwal Transmission Limited,
F-1, The Mira Corporate Suites,
1 & 2, Ishwar Nagar, Mathura Road,
New Delhi-110 065.
19. Haryana Vidyut Prasaran Nigam Limited,
Shakti Bhawan, C-4, Sector-6,
Panchkula-134109 (Haryana).

... Respondent(s)

For Petitioner : Shri Mohd. Mohsin, PGCIL

For Respondents : Shri Deep Rao Palepu, Advocate, GPTL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant Petition for determination of the transmission tariff for the period from COD to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as the “2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as the “transmission assets”) under “ICTs and Bays Associated with Northern Region System Strengthening Scheme (NRSS-XXXVIII)” in Northern Region (hereinafter referred to as the “transmission project”):

Asset I - 1X1500 MVA 765/400 kV ICT-II along with associated bays and 2 Nos. 400 kV line bays for termination of 400 kV D/C Aligarh-Prithala TCB line at Aligarh 765 kV Switching Sub-station, and

Asset II - 1X1500 MVA 765/400 kV ICT-I at Aligarh 765 kV Switching Sub-station.

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

"1) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.



2) Approve DOCO of asset-I and Asset-II as 01.11.2019 and 12.12.2019 respectively under provision 5 (2) of CERC (Terms and conditions of Tariff) Regulation, 2019.

3) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8 above.

4) Condone the delay and allow IDC/IEDC as claimed in the petition as delay is on account of force majeure as per CERC Regulations'2019 22(2)(a) "uncontrollable factors"

5) 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 2019 as per para 8 above for respective block.

6) 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.

7) 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.

8) 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 beneficiaries.

9) 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 8.8 above.

10) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

11) 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.

12) Allow interim tariff in accordance with Regulation 10 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.

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 of the case

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

(a) The Investment Approval (IA) of the transmission project was accorded by the Board of Directors of the Petitioner's Company in its 339th meeting held on 29.3.2017 and circulated vide Memorandum No. C/CP/NRSS-XXXVIII dated 30.3.2017, at an estimated cost of ₹33775 lakh including IDC of ₹2146 lakh at October 2016 price level. As per the IA, the project is scheduled to be commissioned within 27 months from the date of the IA, i.e., by 28.6.2019.

(b) The scope of the transmission project was discussed and agreed upon in the 35th Standing Committee Meeting (SCM) on Power System Planning of the Northern Region held on 3.11.2014, the 34th meeting of the Empowered Committee on Transmission held on 13.4.2015, and the 33rd and 36th NRPC meetings on Transmission for the Northern Region, held on 11.11.2014 and 24.12.2015, respectively.

(c) The scope of work covered under the transmission project is as follows:

i) Creation of 400 kV level at Aligarh (PG) 765 kV GIS switching Station – Extension -

- a) Provision of 2x1500 MVA 765/400 kV ICTs along with associated bays
- b) Provision of 2 Nos. of 400 kV line bays for termination of Aligarh - Prithala 400 kV D/C line under TBCB

ii) 400 kV Neemrana (PG) Sub-station Extension -

- a) Provision of 2 Nos. 400 kV line bays for termination of Neemrana-Dhanonda 400 kV D/C line under TBCB

(d) The Petitioner has claimed the date of commercial operation (COD) of the transmission assets under Regulation 5(2) of the 2019 Tariff Regulations due to the delay in the commissioning of the 220 kV network at Prithala Sub-station under



the scope of HVPNL. The details of the transmission assets covered in the instant Petition are as follows:

Sr. No	Name of Asset	COD (claimed under Regulation 5(2) of the 2019 Tariff Regulations)
1	Asset I - 1X1500 MVA 765/400 kV ICT-II along with associated bays and 2 Nos. 400 kV line bays for termination of 400 kV D/C Aligarh-Prithala TBCB line at Aligarh 765 kV Switching Sub-station.	1.11.2019
2	Asset II - 1X1500 MVA 765/400 kV ICT-I at Aligarh 765 kV Switching Sub-station	12.12.2019

(e) The details of the remaining transmission asset not covered in the instant Petition are as follows:

Sr. No	Name of Asset	COD	Remarks
1	2 Nos. 400 kV line bays at Neemrana Sub-station for termination of 400 kV D/C Neemrana-Dhanonda transmission line	26.2.2019	Petition No. 118/TT/2020 is filed under the 2019 Tariff Regulations

(f) The details of scheduled date of commercial operation (SCOD), COD and time over-run of the transmission assets are as follows:

Assets	SCOD	COD (claimed under Regulation 5(2) of 2019 Tariff Regulations)	Time over-run
Asset -I	28.6.2019	1.11.2019	4 Months 2 Days
Asset -II	28.6.2019	12.12.2019	5 Months 13 Days

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

5. The Petitioner has served a copy of the Petition on the Respondents, and notice regarding the filing of this Petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ('the Act'). No comments or



suggestions have been received from the general public or Respondents in response to the aforesaid notices published in the newspapers by the Petitioner. Uttar Pradesh Power Corporation Limited (UPPCL), i.e., Respondent No. 9, has filed its reply vide affidavit dated 30.10.2021 and has raised the issues of delay in the proposed COD, the need for prudence check with respect to completion cost and Additional Capital Expenditure (ACE), and security expenses. Gurgaon Palwal Transmission Limited (GPTL), Respondent No. 18, has filed its reply vide affidavit dated 27.11.2021 and has prayed to impose the liability for delay in COD on HVPNL and not on GPTL.

6. During the course of the hearing the matter on 6.2.2024, learned counsel for GPTL submitted that GPTL had filed Petition No. 90/MP/2020 claiming that its associated transmission line was affected by *force majeure* events, which has a bearing on the instant matter. He further submitted that as per the Record of Proceedings (RoP) dated 1.8.2022 in Petition No. 649/TT/2020, the order in the present Petition has to be issued after the issuance of the order in Petition No. 90/MP/2020. The Commission, vide order dated 19.5.2024, has disposed of Petition No. 90/MP/2020.

7. The order in the matter was reserved on 6.2.2024. However, the order could not be passed before Shri P. K. Singh, a former Member, demitted the office. Therefore, the matter was heard again on 29.5.2024 and the order was reserved.

8. This order is issued considering the submissions made by the Petitioner in the Petition accompanied by an affidavit dated 3.7.2020 and its subsequent affidavits dated 15.9.2021, and 24.8.2022. UPPCL's and GPTL's have filed their replies vide affidavits dated 30.10.2021 and 27.11.2021, respectively, and the Petitioner's rejoinders thereto.



9. Having heard the Petitioner's representative, learned counsel for GPTL, and having perused the material on record, we proceed to dispose of the Petition.

DETERMINATION OF ANNUAL FIXED CHARGES FROM COD TO 31.3.2024 FOR THE 2019- 24 TARIFF PERIOD

10. The Annual Fixed Charges (AFC) claimed by the Petitioner in respect of the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	222.01	657.34	743.73	786.94	786.94
Interest on Loan	218.40	610.67	641.99	625.30	563.71
Return on Equity	228.02	675.14	763.89	808.26	808.26
Interest on working capital	25.25	67.21	71.65	74.13	74.48
O&M Expenses	348.81	868.90	899.50	931.72	964.08
Total	1042.49	2879.26	3120.76	3226.35	3197.47

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	140.50	506.92	567.84	598.32	598.32
Interest on Loan	133.74	458.81	477.30	463.01	418.17
Return on Equity	145.64	525.45	588.60	620.18	620.18
Interest on working capital	16.78	58.23	61.65	63.70	64.25
O&M Expenses	240.22	819.49	848.45	878.98	909.59
Total	676.88	2368.90	2543.84	2624.19	2610.51

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

(₹ in lakh)

Asset-I					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	69.99	72.41	74.96	77.64	80.34
Maintenance Spares	125.99	130.34	134.93	139.76	144.61
Receivables	308.64	354.98	384.75	397.77	393.13
Total	504.62	557.73	594.64	615.17	618.08
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	25.25	67.21	71.65	74.13	74.48

(₹ in lakh)

Asset-II					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	66.01	68.29	70.70	73.25	75.80
Maintenance Spares	118.81	122.92	127.27	131.85	136.44



Receivables	274.41	292.06	313.62	323.53	320.96
Total	459.23	483.27	511.59	528.63	533.20
Rate of Interest (in %)	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	16.78	58.23	61.65	63.70	64.25

Date of Commercial Operation (“COD”)

12. The Petitioner has claimed the COD of Asset-I as 1.11.2019 and Asset-II as 12.12.2019 in terms of Regulation 5(2) of the 2019 Tariff Regulations as the associated 220 kV downstream transmission system under the scope of HVPNL was not ready.

13. Regulation 5 of the 2019 Tariff Regulations provides as follows:

“5. Date of Commercial Operation: (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

(a) *Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*

(b) *Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*

(c) *Implementation Agreement, if any, executed by the parties;*

(d) *Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*

(e) *Notice issued by the transmission licensee as per the first proviso under this clause and the response;*

(f) *Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.”*

.”

14. The Commission vide RoP for the hearing dated 1.8.2022 directed the Petitioner



to submit a note regarding the purpose of the 2X1500 MVA ICTs at Aligarh Sub-station and power flow details of the 2X1500 MVA ICTs.

15. In response, the Petitioner, vide affidavit dated 24.8.2022, has submitted that as per the agenda of the 35th SCM held on 3.11.2014, HVPNL requested for the creation of new three 400 kV Sub-station, one at Kadarapur, the other one at Sohna Road in Gurgaon area and one 400 kV Sub-station at Prithala in Palwal area as a part of Inter-State Transmission System (ISTS). The first two Sub-stations have been proposed to cater to the load demand of Sectors 58 to 67 and Sectors 68 to 80 of Gurgaon, respectively. The creation of the Prithala Sub-station would meet the power demand of the area to be developed under the Prithala Development Plan. Besides, it will also act as a main feeding source for Palwal, Rangla Rajpur, and Meerpur Kurli. A meeting was held in the CEA on 3.9.2014 to discuss the same in which, it was decided that the joint studies would be carried out by HVPNL and CTUIL in the Petitioner's office. HVPNL furnished the district-wise load projections of Haryana for the 13th Plan (2021-22). Considering the load growth in and around Gurgaon, it was proposed that a bigger ring connecting the existing 400 kV Sub-station of Dhonda-Faruk Nagar (to be created by LILO of Dhonda-Daulatabad D/C line)-Daulatabad-Gurgaon (PG)-Sona-Manasher-Neemrana-Dhonanda may be created around Gurgaon area with 400 kV Quad conductor.

16. In the 35th SCM, the following was agreed:

- To meet the growing load demand in Gurgaon and Palwal and its adjoining areas and to serve the consumers with reliable power, the establishment of three nos. 2X500 MVA, 400/220 kV Sub-stations at Sohna Road, Kadarapur, and Prithala along with associated 400 kV connectivity, i.e. Aligarh-Prithala-



Kadarpur-Sohna Road 400 kV D/C corridor, LILO of Gurgaon-Manesar 400 kV D/C line at Sohna Road and Neemrana-Dhanonda 400 kV D/C line was agreed to be implemented under ISTS (TBCB) based on the request from HVPNL.

- 400/200 kV Sohna Road Sub-station was proposed to cater to the load demand of Sectors 58 to 67 of Gurgaon, whereas 400/220 kV Kadarpur Sub-station was proposed to cater to Sectors 68 to 80 loads of Gurgaon. The 400/220 kV Prithala Sub-station would feed Palwal, Rangla Rajpur, Meerpur Kurli, and adjoining areas. Further, looking at the load growth in Prithala and around Gurgaon areas, a bigger ring around Gurgaon connecting 400 kV Sub-station of Dhanonda-Farukh Nagar-Sohna Road-Manesar-Neemrana-Dhanonda was also proposed.
- Prithala Sub-station was proposed to be connected to ISTS grid at 400 kV to Aligarh (PG) 765 kV switching station and for this purpose 400 kV level was agreed to be created at Aligarh (PG) 765 kV switching station through 2x1500 MVA, 765/400 kV ICTs. 2 nos. 400 kV line bays at Aligarh (PG) for termination of Aligarh-Prithala 400 kV D/C line and 2 nos. 400 kV line bays at Neemrana (PG) for termination of Neemrana-Dhanonda 400 kV D/C line were also agreed to be implemented.

The lines under the scheme were planned with a quad conductor configuration (subsequently changed to HTLS), having a capacity of about 2000 MW for each circuit. Considering the N-1 contingency and requirement of capacity, 2 nos. 765/400 kV 1500 MVA ICT were planned at Aligarh Sub-station.



17. We have gone through the submissions of the Petitioner. The Relevant extracts of the 35th SCM of NR wherein 2X1500 MVA ICTs at Aligarh Sub-station were approved are as follows:

“9. Creation of new 400kV substations in Gurgaon area and Palwal area as a part of ISTS- Agenda by HVPN.

CE HVPNL as well as SE UPPCL stated that the feed to Prithala from Aligarh would be a better solution as number of lines from Agra S/S are coming to Gurgoan area and the 765 kV Aligarh switching st. may be changed as 765/400 S/S by adding 2x1500 MVA ICT. They further stated that to take care of the increasing problem of short circuit level, all 400 kV S/S should be designed to handle 50 KA fault current. After detailed deliberation the following proposals were agreed by the Standing Committee with the following scope of works:

i) Creation of 400 kV level at Aligarh S/S by adding 2x1500 MVA 765/400 kV ICT

ii) -----

The Standing Committee agreed and concurred with the proposal.”

18. The Relevant extracts of the minutes of the 33rd meeting of the Northern Regional Power Committee and 29th meeting of TCC wherein 2X1500 MVA ICTs at Aligarh Sub-station were approved are as follows:

“D.6.2.3 Creation of new 400/220 kV substations in Gurgaon area and Palwal area as a part of ISTS

Representative of CTU, POWERGRID informed that to cater the load demand of sector 58 to sector 67 and sector 68 to sector 80 of Gurgoan and the area to be developed under Prithala Development Plan, following ISTS Transmission system had been agreed in the 35th SCM:

i) Aligarh (POWERGRID) – Prithala, 400 kV D/C Quad line

ii) 400 kV D/C Quad line from Prithala – Kadarapur (400 kV) S/S

iii) 400 kV D/C Quad line from Kadarapur – Sona Road (400 kV) S/S

iv) LILO of Gurgoan – Manesar D/C line at Sona Road S/S

v) Neemrana – Dhonanda (HVPNL) 400 kV D/C Quad line

*vi) Creation of 400/220 kV, 2*500MVA substations at Kadarapur in Gurgaon area*

*vii) Creation of 400/220 kV, 2*500 MVA substations at Sona Road in Gurgaon area*

*viii) Creation of 400/220 kV, 2*500 MVA substations at Prithala in Palwal area*

ix) Provision of 2 nos. of 765/400 kV 1500 MVA at Aligarh (POWERGRID).



x) To cater to the future load growth of the area, space provision of 2*500MVA transformation capacity augmentation at each of these substations may be kept.

Members of NRPC while agreeing to the proposal stated that the 220 kV connectivity must be ensured by HVPNL in the matching time frame.”

19. As per the above minutes, we are of the view that 2 nos. 1500 MVA transformers at Aligarh were planned to cater to HVPNL's drawl requirement. The COD of the transmission assets is being claimed under Regulation 5(2) of the 2019 Tariff Regulations, as both the assets were charged on a “no load” basis. as, there was no power flow in the transmission line due to the non-commissioning of the downstream system under the scope of HVPNL.

20. Regulation 5(2) of the 2019 Tariff Regulations provides that in case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the inter-connected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file a Petition before the Commission for approval of the date of the commercial operation of such transmission system or element thereof.

21. In the instant case, the Petitioner sought approval of the COD of Asset-I and Asset-II as 1.11.2019 and 12.12.2019, respectively as its associated downstream asset under the scope of HVPNL was not ready because of which the Petitioner was not able to declare the COD of Assets-I and II.

22. HVPNL was not initially impleaded as a Respondent in the present Petition, but it was impleaded as a Respondent to the present Petition on the direction of the Commission vide RoP dated 26.10.2021.



23. The Commission vide RoP dated 26.10.2021 directed the Respondents, including HVPNL, UPPCL, and GPTL, to file their respective replies in the matter. However, no response was received from HVPNL on the Petitioner's plea for approval of COD of Assets-I and II under Regulation 5(2) of the 2019 Tariff Regulations and the status of the associated downstream assets under its scope. Since HVPNL did not file any reply, we deal with the Petitioner's plea for approval of COD of Assets-I and II on the basis of the information available on record.

Asset-I:

24. The Petitioner has sought a declaration of COD of Asset-I as of 1.11.2019 under Regulation 5(2) of the 2019 Tariff Regulations. In support of COD of Asset-I, the Petitioner has placed on record the Energisation Certificates dated 4.10.2019 under Regulation 43 of the Central Electricity Authority (CEA) (Measures relating to Safety and Electric Supply) Regulations, 2010, 'No-load' RLDC Charging Certificate dated 2.1.2020, certifying that successful trial operation was completed on 31.10.2019 and CMD Certificate as required under the Grid Code. The relevant portion of the 'no-load' certificate in the case of Asset-I is as follows:



Certificate of Completion of Trial Run Operation of 400kV bays no 401-403 and 405-406 at Aligarh (PG)

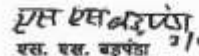
संदर्भ

- i) CPCC, POWERGRID, NRTS-3, New Delhi Communication dated 09.10.2019 & 15.10.2019 regarding the submission of pre charging documents for 765kV, 3x500 MVA ICT-2 and Prithala(GPTL) line-1,2 bays and associated main & tie bays of Aligarh(PG) ICT-1.
- ii) Real time code issued by NRLDC on request CPCC, POWERGRID, NRTS-3, New Delhi 26.10.2019, 29.10.2019 & 30.10.2019(NRLDC Code: NR1910-3946, 3826 & 3827).
- iii) CPCC, POWERGRID, NRTS-3, New Delhi, Communication dated 13.12.2019 regarding the submission of post charging documents.

Based on above references, it is hereby certified that the following Transmission elements have been successfully completed the trial operation:

Name of Transmission Asset:	<ol style="list-style-type: none"> 400kV Main bay no 401 of 765kV, 3x500 MVA ICT-1 at Aligarh (PG). 400kV Tie bay no 402 at Aligarh (PG). 400kV Main bay no 403 of Prithala line-1 at Aligarh (PG). 400kV Tie bay no 405 at Aligarh (PG). 400kV Main bay no 406 of Prithala line-2 at Aligarh (PG). <p>{Above elements were charged at no load}</p>
Owner of Transmission Asset:	1. POWERGRID
Date and Time of Energization for Commencement of trial run operation:	<ol style="list-style-type: none"> 30.10.2019/10:54 hrs. 30.10.2019/10:55 hrs. 30.10.2019/10:56 hrs. 29.10.2019/18:57 hrs. 29.10.2019/19:06 hrs.
Date and Time of completion of trial run operation:	<ol style="list-style-type: none"> 31.10.2019/10:54 hrs. 31.10.2019/10:55 hrs. 31.10.2019/10:56 hrs. 30.10.2019/18:57 hrs. 30.10.2019/19:06 hrs.

यह प्रमाणपत्र ट्रांसमिशन तत्व के परीक्षण संचालन के सफल समापन को प्रमाणित करने के लिए केंद्रीय विद्युत नियामक आयोग (टैरिफ की नियम और शर्तों) विनियमन, 2019 के विनियमन 5.2(b) के अनुसार जारी किया जा रहा है। किसी अन्य उद्देश्य के लिए इस प्रमाणपत्र का उपयोग प्रतिबंधित है।


 एस. एस. बठुण्डा 31/10/2019
 कार्यकारी निदेशक (उ. श. मा. प्र. केंद्र)



Certificate of Completion of Trial Run Operation of 765kV, 3x500 MVA ICT-2 along with associated bays of both sides, 765kV bays no 813-817 bay at Aligarh (PG)

संदर्भ

- i) CPCC, POWERGRID, NRTS-3, New Delhi Communication dated 09.10.2019 & 15.10.2019 regarding the submission of pre charging documents for 765kV, 3x500 MVA ICT-2 and Prithala(GPTL) line-1, 2 bays and associated main & tie-bays of Aligarh(PG) ICT-1.
- ii) Real time code issued by NRLDC on request CPCC, POWERGRID, NRTS-3, New Delhi 26.10.2019, 29.10.2019 & 30.10.2019(NRLDC Code: NR1910-3460, 3820, 3970,3973,3984,3979 & 3977).
- iii) CPCC, POWERGRID, NRTS-3, New Delhi, Communication dated 30.10.2019, 04.11.2019 & 08.11.2019 regarding the submission of post charging documents.

Based on above references, it is hereby certified that the following Transmission elements have been successfully completed the trial operation:

Name of Transmission Asset:	<ol style="list-style-type: none"> 765kV, 3x500 MVA ICT-2 along with associated bays 818(765kV side main) & 404(400kV side main) at Aligarh (PG). 765kV Tie bay no 817 at Aligarh (PG). 765kV Future main bay no 816 at Aligarh (PG). 765kV Main bay no 815 of 765kV, 3x500 MVA ICT-1 at Aligarh (PG). 765kV Tie bay no 814 at Aligarh (PG). 765kV Future main bay no 813 at Aligarh (PG). <p>(Above Element were charged at no load)</p>
Owner of Transmission Asset:	1. POWERGRID
Date and Time of Energization for- Commencement of trial run operation:	<ol style="list-style-type: none"> 30.10.2019/16:00 hrs. 30.10.2019/16:17 hrs. 30.10.2019/16:43 hrs. 30.10.2019/17:38 hrs. 30.10.2019/17:22 hrs. 30.10.2019/17:00 hrs.
Date and Time of completion of trial run operation:	<ol style="list-style-type: none"> 31.10.2019/16:00 hrs. 31.10.2019/16:17 hrs. 31.10.2019/16:43 hrs. 31.10.2019/17:38 hrs. 31.10.2019/17:22 hrs. 31.10.2019/17:00 hrs.

यह प्रमाणपत्र ट्रांसमिशन तत्व के परीक्षण संचालन के सफल समापन को प्रमाणित करने के लिए केंद्रीय विद्युत नियामक आयोग (टैरिफ की नियम और शर्तों) विनियमन, 2019 के विनियमन 5.2(b) के अनुसार जारी किया जा रहा है। किसी अन्य उद्देश्य के लिए इस प्रमाणपत्र का उपयोग प्रतिबंधित है।

एस. एस. बड़पंडा
27/11/2020

कार्यकारी निदेशक (उ. क्ष. मा. प्र. केंद्र),

25. It is observed that the Petitioner has claimed tariff for 2 nos. 400 kV line bays for termination of the Aligarh-Prithala 400 kV D/C line. However, the Petitioner has submitted the CEA Energization Certificate for line-1 bay only and has not submitted the CEA Energisation Certificate for line-2 bay. It is also observed that the Petitioner has submitted a 'no-load' RLDC Certificate for line-2 bay only and not for line-1 bay. Accordingly, the Petitioner is directed to submit the required CEA Energisation Certificate and RLDC Charging Certificate for the remaining line bays at the time of



truing-up.

Asset-II:

26. The Petitioner has claimed the COD of Asset-II as 12.12.2019. In support of the actual COD of Asset-II, the Petitioner has placed on record the Energisation Certificate dated 5.12.2019 under Regulation 43 of the CEA (Measures relating to Safety and Electric Supply) Regulations, 2010, 'no-load' RLDC Charging Certificate dated 2.1.2020 certifying the completion of trial operation on 11.12.2019 and the CMD Certificate as required under the Grid Code. The extract of the no-load certificate for Asset-II is as follows:

प्रमाणपत्र सं०:पोसोको/एनआरएलडीसी/एसओ-1/260/100-102		दिनांक: 02.01.2020
Certificate of Completion of Trial Run Operation of 765kV, 3x500 MVA ICT-1 at Aligarh (PG)		
संदर्भ		
I) CPCC, POWERGRID, NRTS-3, New Delhi Communication dated 22.11.2019 & 06.12.2019 regarding the submission of pre charging documents for 765kV, 3x500 MVA ICT-1 at Aligarh(PG).		
ii) Real time code issued by NRLDC on request CPCC, POWERGRID, NRTS-3, New Delhi 09.12.2019 & 10.12.2019(NRLDC Code: NR1912-1716, 1997 & NLDC Code-542).		
iii) CPCC, POWERGRID, NRTS-3, New Delhi, Communication dated 13.12.2019 regarding the submission of post charging documents.		
Based on above references, it is hereby certified that the following Transmission elements have been successfully completed the trial operation:		
Name of Transmission Asset:	1. 765kV, 3x500 MVA ICT-1 at Aligarh (PG). { Above ICT was charged at no load}	
Owner of Transmission Asset:	1. POWERGRID	
Date and Time of Energization for Commencement of trial run operation:	1. 10.12.2019/19:30 hrs.	
Date and Time of completion of trial run operation:	1. 11.12.2019/19:30 hrs.	
इस प्रमाणपत्र ट्रांसमिशन तत्व के परीक्षण संचालन के सफल समापन को प्रमाणित करने के लिए केंद्रीय विद्युत नियामक आयोग (CEA) की नियम और शर्तों (विनियमन, 2019) के विनियमन 5.2(b) के अनुसार जारी किया जा रहा है। किसी अन्य उद्देश्य के लिए इस प्रमाणपत्र का उपयोग प्रतिबंधित है।		
		एस एस बड़पंडा 5/1/2020 एस. एस. बड़पंडा कार्यकारी निदेशक (उ. को. आ. प्र. केंद्र),



27. Regulation 3 (20) of the 2019 Tariff Regulations defines the word 'element' and the same is reproduced as follows:

“(20) ‘Element’ means an asset which has been distinctively defined under the scope of the transmission project in the Investment Approval such as transmission lines including line bays and line reactors, substations, bays, compensation device, Interconnecting Transformers;”

28. As per the above definition of the word 'element' given under Regulation 3 of the 2019 Tariff Regulations, an element can be treated as a separate asset only if it is distinctively defined in the IA.

29. As per the IA dated 29.3.2017, the scope of the work is mentioned as follows:

i) Creation of 400 kV level at Aligarh (PG) 765 kV GIS switching Station – Extension -

a) Provision of 2x1500 MVA 765/400 kV ICTs along with associated bays

30. In the instant case, the Petitioner has split the 2X1500 MVA ICTs and associated bays at Aligarh Sub-station and claimed the COD of one part of the 1500 MVA ICT and the associated bay as 1.11.2019 and second part of 1500 MVA ICT and the associated bay as 12.12.2019 under Regulation 5(2) of the 2019 Tariff Regulations as the associated 220 kV downstream transmission system under the scope of HVPNL is not ready.

31. We are of the view that the Petitioner can claim the COD of the transmission asset under Regulation 5(2) of the 2019 Tariff Regulations if it has completed its scope of work as per the IA. Since, in the instant case, 2x1500 MVA 765/400 kV ICTs along with associated bays were completed only on 12.12.2019, we are not inclined to approve the COD of Asset-I as 1.11.2019.

32. Accordingly, the COD of Asset-I and Asset-II is approved as 12.12.2019, wherein



the complete scope of the work, i.e., 2x1500 MVA 765/400 kV ICTs along with associated bays, was completed. It is noted that as on 12.12.2019, the downstream transmission system under the scope of HVPNL was not ready. Accordingly, HVPNL is liable to pay the transmission charges and the same has been dealt with in this order in the subsequent paragraph under the head of 'Sharing of Transmission Charges'.

Capital Cost

33. 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 Asset-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 tried 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 Asset-forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Asset-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 asset.

- (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.”

34. The Petitioner vide Auditor’s Certificate dated 20.5.2020 has claimed the following capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred in respect of the transmission assets:

Assets	FR Apportioned approved Cost	Capital Cost on COD	Projected ACE			Total Capital Cost as on 31.3 2024
			2019-20	2020-21	2021-22	
Asset-I	18674.82	8294.31	2900.25	1575.07	1575.07	14344.70
Asset-II	14066.62	8280.10	484.87	1120.82	1120.82	11006.61

Cost Overrun

35. The estimated completion cost of the transmission assets based on the Auditor’s Certificate works out to ₹14344.70 lakhs for Asset-I and ₹11006.61 lakhs for Asset-II, including IEDC and IDC, which is within the FR apportioned approved cost of ₹18674.82 lakh for Asset-I and ₹14066.62 lakhs for Asset-II. Therefore, there is no cost overrun.

Time Overrun

36. The IA for the transmission assets in the instant Petition was accorded on 29.3.2017, and as per the IA, the transmission assets were scheduled to be put into commercial operation within 27 months from the date of IA, i.e., by 28.6.2019. The details of the time over-run with respect to the transmission assets are as follows:

Assets	SCOD	Claimed COD	Time over-run
Asset -I	28.6.2019	1.11.2019	4 Months 2 Days
Asset -II	28.6.2019	12.12.2019	5 Months 13 Days

37. The Petitioner, vide affidavit dated 15.9.2021, has submitted that GPTL declared the deemed COD of the 400 kV D/C Aligarh-Prithala transmission line w.e.f. 6.8.2019



and proposed the commissioning of Assets-I and II at the Petitioner's end w.e.f. 1.11.2019 and 12.12.2019, respectively. However, power flow from the Assets-I and II started w.e.f. 18:41 hrs on 18.3.2020 when the load was added at Prithala Sub-station. The Petitioner has submitted that Assets I and II were ready for regular service after successful charging and commissioning from 30.10.2019 and 11.12.2019, respectively, but were prevented from providing regular service due to the delay in the commissioning of the 220 kV network at Prithala Sub-station which were to be constructed by HVPNL. This delay was not attributable to the Petitioner, and the same was beyond its control. Hence, the Petitioner has prayed to consider the COD of Asset-I and Asset-II under the provisions of Regulation 5(2) of the 2019 Tariff Regulations.

38. The Petitioner has submitted that the shutdown of 765 kV Bus-I and Bus-II is a pre-requisite for the completion of erection, testing, and commissioning for the creation of the 400-kV level Sub-station at Aligarh. Shut-downs for both buses were initially required for the 765-kV bus bar extension and, subsequently, for carrying out the different tests on the GIS. The delay in the commissioning of Asset-I at Aligarh 765 kV Switching Sub-station under NRSS-XXXVIII was mainly due to a delay in getting shut-down of 765 kV Bus-I and Bus-II for carrying out existing bus bar extension along with different tests.

39. The Petitioner vide e-mail dated 3.7.2019 communicated to NRPC that the shut-down of 765 kV Bus-I and Bus-II was applied for 17.7.2019 - 18.7.2019 and for 22.7.2019 - 23.7.2019, respectively, in the 161st OCC (Operational Coordination Sub-committee) meeting. However, due to an increase in demand load in July-August 2019, NRPC advised to avoid shut-down for the requested period, vide e-mail dated 19.7.2019. The Petitioner again applied for the shut-down of 765 kV Bus-I and Bus-II



vide e-mail dated 29.7.2019 and 3.8.2019 from 21.8.2019 to 23.8.2019 (for Bus-I) and from 24.8.2019 to 26.8.2019 (for Bus-II) for coupling of existing bus to extension part and for various dates ranging from 29.8.2019 to 9.9.2019 for carrying out the different tests (HV test, Impulse test, and inter-connection, etc.) in the 162nd OCC meeting. However, due to the higher demands in NR and the affected Hydro Generation System, NRPC advised to avoid the shut-down of Aligarh Bus vide e-mail dated 27.8.2019. Accordingly, only the shutdown of Bus-I was allowed from 3.9.2019 to 6.9.2019, and the same was availed. Again, the Petitioner applied for the shut-down of the 765 kV Bus-I and Bus-II vide e-mail dated 20.9.2019 for coupling of the existing bus to extension part from 25.9.2019 to 27.9.2019 and shut-down of the 765 kV Bus-I and Bus-II on various dates ranging from 29.9.2019 to 12.10.2019 for carrying out different tests was applied in the 163rd OCC meeting. However, the shutdown of Bus-II was postponed till 1.10.2019 due to the late revival of the Agra-Jhatikara Line and 800 kV HVDC Champa-Kurukshetra Bipole Line. Accordingly, the shutdown of Bus-II was availed from 1.10.2019 to 3.10.2019 for coupling the existing Bus-II to the extension part and from 4.10.2019 to 6.10.2019 for carrying out the HV test. Further, due to the delay in the approval of the shutdown of Bus-II for coupling of the existing bus to the extension part and overlapping of the shut-down period (from 29.9.2019- 3.10.2019) of Bus -I and Bus-II for carrying out Impulse and HV test, the further shutdown got deferred and postponed to new dates in October 2019, and finally shutdowns were availed by 25.10.2019.

40. UPPCL vide affidavit dated 31.10.2021 has submitted that the SCOD of Asset-I and Asset-II was 28.6.2019, and all the reasons submitted by the Petitioner are beyond SCOD. For the shutdown, the first e-mail was sent on 29.7.2019 (for Bus-I) and



3.8.2019 (For Bus-II). The proposed dates for shut-down were 21.8.2019 - 23.08.2019 (for Bus-I) and 24.8.2019 - 26.8.2019 (for Bus-II), respectively, for coupling of the existing bus to the extension part. The UPPCL has submitted that the nature of work under the scope, shut-down of 765 kV Bus-I, and Bus-II is a pre-requisite for completion of erection, testing, and commissioning for the creation of the 400 kV level Sub-station at Aligarh. UPPCL has further submitted that the request for shutdown was rejected vide Minutes of the 161st OCC meeting, and the above Minutes have been signed by the authorized person of the Petitioner and not by the Competent Authority on behalf of the OCC. Therefore, the Petitioner may be directed to submit the Minutes of Meeting of the 161st OCC meeting duly signed by the authorised signatory.

41. In response, the Petitioner has submitted that it was unable to commission both the transmission assets in time due to a delay in the approval of the bus bar shut-down by NRPC at 765 kV Aligarh switching station. The Petitioner has further submitted that the detailed justifications, along with the supporting documents, have been provided in the Petition. The Petitioner has submitted the chronology of the events of delay in getting the shutdown and charging of assets associated with the transmission project and the same are as follows:

S. No.	Particulars	Remarks	Date
1	Shut-down requested for of 765 kV Bus-I and Bus-II of Aligarh GIS already existing/Operating Sub-station	Shut-down requested for connecting Old GIS Bus to new GIS Bus. Copy of mail enclosed.	3.7.2019
2	Shut-down rejected in 161 st OCC meeting held on 15.7.2029	Outage report enclosed and at sl. no. 26 & 27. Shut-down applied for the said period rejected	15.7.2019



3	Shut-down was not approved by NRPC	NRPC opined that continuous outage of Aligarh Bus may be avoided during the high demand season of NR. Copy of mail enclosed.	19.7.2019
4	Once again shut-down requested for of 765 kV Bus-I and Bus-II of Aligarh GIS already existing/Operating Sub-station	The Petitioner indicated its urgency and importance in the mail sent to NRPC.	29.7.2019
5	Deemed COD declared for Prithala Sub-station (In the scope of GPTL)		8.8.2019
6	Shut-down rejected in 162 nd OCC meeting held on 13.8.2019	Outage report enclosed and at S. No. 26 & 27 Shut-down applied for the said period rejected	13.8.2019
7	NRPC intimated to the Petitioner via mail to postpone /to defer shut-down based on 162 nd OCC Outage report	---	16.8.2019
8	Once again shut-down requested for of 765 kV Bus at Aligarh GIS already existing/Operating Sub-station	The Petitioner reiterated its urgency and importance in mail sent to NRPC.	19.8.2019
9	The Petitioner requested NRPC to share the status of shut-down	---	22.8.2019
10	NRPC sent mail to the Petitioner mentioning to avoid shut-down of Aligarh Sub-station	NR demand is on the higher side and hydro generation in NR is getting affected due to the high silt issue. So, the shut-down of Aligarh bus may be avoided.	27.8.2019
11	Shut down of 765 kV Bus Bar-II at Aligarh GIS has been approved in OCC 163 to facilitate the execution work of extension of 765 kV GIS at Aligarh	---	16.9.2019 Report issued on 24.9.2019
12	The Petitioner requested NRLDC to arrange shut-down as per 163 rd OCC approval	---	20.9.2019
13	NRLDC did not allowed to avail the shut-down	NRLDC, in its mail, stated that the request may be considered after the revival of the 765 kV Agra-Jhatikara line & proposed SD of the HVDC Champa-Kurukshetra pole	20.9.2019



14	The Petitioner requested NRLDC/NLDC to arrange shut-down	---	26.9.2019 27.9.2019
15	Shut-down for Bus-I and Bus-II at Aligarh GIS Sub-station got approved	Shut-down for Bus-I and Bus-II at Aligarh GIS Sub-station got approved for the following period: 1. 765 kV Bus-II - Continuous Basis- (From 09:00 hrs on 29.9.2019 to 18:00 hrs on 1.10.2019) - for inter-connection of existing system to new system. 2. 765 kV Bus-II- Daily Basis -(From 09:00 hrs on 2.10.2019 to 18:00 hrs on 4.10.2019 for Carrying out HV & Impulse test of extension part	27.9.2019
16	The Petitioner requested NRLDC/NLDC to arrange opening code of Bus-II at Aligarh GIS from 0900 hrs of 29.9.2019	---	29.9.2019
17	NLDC/NRLDC did not allow shut-down	NLDC reiterated that shut-down of 765 kV Aligarh Bus-II will be facilitated after revival of HVDC Champa-Kurukshetra Bi-pole	
18	The Petitioner requested NRLDC/NLDC to accord shut-down of Bus-II at Aligarh GIS from 0900 hrs of 1.10.2019	---	30.9.2019
19	The Petitioner requested NRLDC/NLDC to issue Bus-II outage code	---	1.10.2019
20	The Petitioner requested NRLDC/NLDC to accord shut-down of Bus-I at Aligarh GIS	---	9.10.2019 10.10.2019
21	Shut-down Accorded by NRLDC/NLDC for Bus-I and Bus-II at GIS Aligarh Sub-station 1.10.2019 to 15.10.2019	Said shut-down are approved in 163 OCC but not considered by NRLDC/NLDC on approved dates due to the extension of Agra-Jhatikala S/D	15.10.2019



		and Champa-Kurshetra line	
22	Finally, shut-downs were availed by 25.10.2019 for final connection of extension part to the existing Aligarh Sub-station	---	---
23	No load charging done for Asset-I 1X1500 MVA 765/400 kV ICT-II alongwith associated bays and 2numbers 400 kV Line Bays for termination of 400 kV D/C Aligarh-Prithala TBCB Line at Aligarh 765 kV Switching Sub-station (In the scope of the Petitioner)		30.10.2019
24	No load charging done for Asset II - 1X1500 MVA 765/400 kV ICT-I at Aligarh 765kV Switching Sub-station (In the scope of the Petitioner)		11.12.2019
25	COD proposed for Asset-I and Asset-II		1.11.2019 and 12.12.2019

42. Further, the Petitioner has submitted that the shut-down was requested for 2 to 10 days to carry out all the work. However, the final shut-down was availed on 25.10.2019, and the first shutdown was requested from 17.7.2019 vide e-mail dated 3.7.2019. Thus, there is a delay in availing the shutdown to carry out the activities which is beyond the control of the Petitioner. The Petitioner has further submitted that the OCC outage details are the authentic documents downloaded from the NRPC's website.

43. GTPL has submitted that it has no objection to the grant of the proposed COD of 1.11.2019 for Asset-I as claimed by the Petitioner to the extent that no liability in any form is imposed on GPTL for any mismatch period since it was not responsible for any delay whatsoever. GPTL is developing an inter-State transmission project to meet the growing load demand in Gurgaon and Palwal areas and to serve the customers with reliable power, which requires the development and construction of various transmission lines and elements, including the creation of 400/220 kV 2x500 MVA GIS



Sub-station at Prithala in Palwal area along with 1 no. 125 MVAR Bus Reactor (Prithala Sub-station). GPTL has submitted that the Transmission Service Agreement (TSA) dated 4.3.2016 was executed by GPTL with its Long-Term Transmission Customers (LTTCs), according to which the SCOD for the Prithala Sub-station was 13.5.2019. However, the execution of the Prithala Sub-station suffered from certain delays attributable to HVPNL. GPTL has submitted that the approval for the energisation of Prithala Sub-station from the CEA was received on 31.7.2019, and, thereafter, Prithala Sub-station was declared as deemed commissioned w.e.f. 8.8.2019. The Petitioner has admitted that the Asset-I was ready for regular service after successful charging and commissioning from 30.10.2019. However, it was prevented from providing regular service due to a delay in the commissioning of the 220-kV network at the Prithala Sub-station, which was to be constructed by HVPNL. GPTL has further prayed that liability for the delay ought to be imposed on HVPNL alone as the delay in operationalization of the Petitioner's assets is not attributable to GPTL.

44. In response, the Petitioner has reiterated its submission made in the rejoinder to the reply of UPPCL. In addition, the Petitioner has submitted that the delay in shut-down approval was mainly to meet the load requirements of the local areas and due to security and smooth running of the National Grid. Since the delay in availing/approval of the shut-down to carry out the activities was beyond the control of the Petitioner, the time over-run may be condoned for the transmission assets as per Regulation 22(2) of the 2019 Tariff Regulations.

45. The Petitioner, vide affidavit dated 24.8.2022, has submitted that after completion of the 400 kV system, power flow was started at Aligarh Sub-station on 18.3.2020 (238 MW on each ICT) at 18:41 hrs. At that time, a 220-kV downstream system was not



available at any of the three Sub-stations. The 220kV system was under execution in a progressive manner. Further, power flow on ICT-I and ICT-II was 286.10 MW each at 10:20 hrs of 8.8.2022 at 765/400 kV GIS Aligarh, and maximum power flow through each ICT was 647.42 MW on 18.8.2021.

46. The Petitioner, vide affidavit dated 28.6.2024, has reiterated its submission with respect to the delay in putting Asset-I into commercial operation. In addition, the Petitioner has submitted that the shutdown was not being granted by NRPC/NRLDC despite the Petitioner's request due to the reason that there was peak/ high demand of power/ grid requirement and the interest of consumers have been sub-served as they were benefitted with power and requirement of grid was met. The rationale for not passing on the transmission charges to the beneficiaries/ consumers before the actual COD is that the consumers can only be billed once the power flow has started. Therefore, in the peculiar circumstances of the present case and keeping in view the principles enshrined in Section 61(d) of the Act, while the consumer interests have been safeguarded, the Petitioner should also not be burdened to bear mismatch charges.

47. We have considered the submissions of the Petitioner, UPPCL, and GTPL. As per the I.A. dated 29.3.2017, the SCOD of the transmission assets is 28.6.2019, against which Asset-I and Asset-II were proposed to be put into deemed commercial operation on 1.11.2019 and 12.12.2019, respectively. Thus, there is a time overrun of 126 days and 167 days in the commissioning of Asset-I and Asset-II, respectively. The Petitioner has attributed the time overrun in the case of Asset-I and Asset-II towards the delay in getting approvals for the shut-down of 765 kV Bus-I and Bus-II. As mentioned above, the COD of Asset-I and Asset-II have been approved as 12.12.2019, thus there is a time over-run of 167 days in putting both the transmission assets into commercial



operation.

48. As per the Gantt chart submitted by the Petitioner, the Petitioner had to start testing on 16.5.2019 and finish the same by 28.6.2019. As per the original plan of work, the Petitioner had to complete testing and commissioning work within 44 days. The Petitioner was not ready for testing and putting the transmission assets into commercial operation prior to SCOD of the transmission asset, i.e., by 28.6.2019. The Petitioner, vide e-mail dated 3.7.2019, for the first time, applied for shutdown for the connection of the old GIS Bus to the new GIS extension of 765 kV Bus-I and Bus-II for the period from 17.7.2019 to 18.7.2019 and from 22.7.2019 to 23.7.2019, respectively. However, the 161st OCC meeting rejected the shutdown approval for the above-mentioned dates. The Petitioner, vide e-mail dated 29.7.2019 and 3.8.2019, had again applied for shutdown from 21.8.2019 to 23.8.2019 for Bus-I and from 24.8.2019 to 26.8.2019 for Bus-II. However, the 162nd OCC allowed the shutdown of Bus-I from 3.9.2019 to 6.9.2019. The Petitioner, vide e-mail dated 20.9.2019, had further applied for a shutdown of 765 kV Bus-II and finally availed the shutdown by 25.10.2019. The time period from 17.7.2019 to 25.10.2019 (100 days) was impacted on account of the shutdown approval. We are of the view that had the Petitioner applied for shutdown prior to the SCOD of the transmission assets, the transmission assets could have been put into commercial operation within the scheduled time. However, the Petitioner itself applied for the shutdown much later and finally completed the shutdown process by 25.10.2019. It is observed that 44 days were required for the testing and commissioning activities after completion of the erection work as per the original planning. Thus, considering that the system had been erected and shutdown was approved by the OCC as per the request made by the Petitioner, in that event, a minimum time of 44 days



was expected to be taken for the testing and commissioning. Accordingly, the time period of days is condoned, and the time period beyond days is not condoned.

49. The Petitioner had to commission both the ICTs together. However, the Petitioner has claimed the different CODs for both the transmission assets/ ICTs. In the case of Asset-II, the Petitioner has claimed the COD as 12.12.2019. However, the Petitioner has failed to submit the reasons for the additional time taken from 1.11.2019 to 12.12.2019 for the commissioning of Asset-II. Therefore, the time period from 1.11.2019 to 12.12.2019 is not condoned in the case of Asset-II. Nevertheless, a period of 44 days in all is condoned in the case of Asset II as well.

50. Out of the total time overrun of 167 days, the time overrun of 56 days is condoned on account of the shut-down approval, and the time period of 111 days is not condoned.

51. The details of time over-run condoned/ not condoned are as follows:

Assets	SCOD as per IA	COD	Time over-run claimed w.r.t SCOD	Time over-run condoned	Time over-run not condoned
Asset-I	28.6.2019	12.12.2019	167 days	days	111 days
Asset-II	28.6.2019	12.12.2019	167 days	days	111 days

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

52. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the Auditor's Certificate dated 20.5.2020 in support of the same. The Petitioner has furnished the computation of IDC along with year-wise details of the IDC discharged.

53. The loan amount as on the COD has been mentioned in Form-6 and Form-9C. The loan details submitted in Form-9C for the 2019-24 tariff period and IDC



computation statement have been considered for the purpose of IDC calculation on a cash basis and on an accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. IDC on a cash basis up to COD has been worked out based on the loan details given in the statement showing the discharge of IDC and Form-9C for the transmission assets. The Petitioner is directed to submit the information on actual interest rates at the time of truing-up.

54. Accordingly, based on the information furnished by the Petitioner, IDC considered in respect of the transmission assets is as follows:

Assets	IDC as per Auditor's Certificate	IDC Admissible	IDC disallowed due to time over-run not condoned	IDC discharged as on COD	IDC Un-discharged as on COD	(₹ in lakh)	
						IDC Discharge During	
						2019-20	2020-21
	A	B	C=A-B	D	E=B-D	F	G
Asset-I	263.79	180.51	83.28	172.67	7.84	0.00	7.84
Asset-II	144.60	49.84	94.76	33.13	16.71	0.00	16.71

55. The Petitioner has claimed IEDC and has submitted Form-12A and Auditor's Certificate in support of its claim.

56. We have considered the submissions of the Petitioner and have examined Form-12A along with the Auditor's Certificate submitted by the Petitioner in support of its claim. The IEDC allowed for the transmission assets is as follows:

Assets	IEDC claimed	Less: IEDC disallowed due to time over-run not condoned	(₹ in lakh)
			IEDC allowed
Asset-I	297.01	33.37	263.64
Asset-II	300.89	33.80	267.09

Initial Spares



57. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of plant and machinery cost up to the cut-off date, subject to the following ceiling norms:

“(d) Transmission System

- i. Transmission line: 1.00%*
- ii. Transmission sub-station*
 - Green Field: 4.00%*
 - Brown Field: 6.00%*
- iii. Series Compensation devices and HVDC Station: 4.00%*
- iv. Gas Insulated Sub-station (GIS)*
 - Green Field: 5.00%*
 - Brown Field: 7.00%*
- v. Communication System: 3.50%*
- vi. Static Synchronous Compensator: 6.00%”*

58. The Petitioner has claimed the following Initial Spares for the transmission assets:

(₹ in lakh)				
Assets	Particulars	Plant & Machinery cost up to the cut-off date (₹ in lakh) (excluding IDC and IEDC)	Initial Spares claimed (₹ in lakh)	Ceiling limit (in %)
Asset-I	Sub-Station	13572.99	796.31	7
	PLCC	210.90	4.45	3.5
Asset-II	Sub-Station	10486.00	633.70	7
	PLCC	75.12	2.23	3.5

59. We have considered the submissions of the Petitioner. The Petitioner has claimed Initial Spares on PLCC under the communication system separately. This issue has been dealt with in the Commission’s order dated 26.5.2022 in Petition No. 203/TT/2021.

The relevant portions of the order dated 26.5.2022 are as follows:

“61. We have considered the submissions of the Petitioner and MPPMCL. 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. Form-5 under Part-III of the 2019 Tariff Regulations requires a transmission licensee to provide “Elementwise Break-up of Project/ Asset/ Element Cost for Transmission System or Communication System”. The details which are required



to be furnished with regard to (a) transmission line are: preliminary works, transmission lines material, taxes and duties; (b) for Sub-stations: preliminary works & land, civil works, substation equipment, spares, taxes and duties; and for (c) communication system: preliminary works, communication system equipment, taxes and duties. PLCC is a part of sub-station equipment at Sl. No. 6.5 of Form-5 under the head "Sub-station equipment" and there is no mention of PLCC under communication system.

62. Therefore, as discussed above, we are not inclined to grant Initial Spares separately towards PLCC under communication system since Initial Spares claimed towards PLCC are included in sub-station."

60. Based on the information available on record, the Initial Spares in respect of the transmission assets are allowed as per the respective percentage of the plant and machinery cost (including the cost of PLCC) for each asset as on the cut-off date. Initial Spares allowed in respect of the transmission assets are as follows:

Assets	Particulars	Plant & Machinery cost up to the cut-off date (₹ in lakh) (excluding IDC and IEDC)	Allowable Initial Spares (₹ in lakh)	Ceiling limit (in%)	Initial Spares allowed (₹ in lakh)
Asset-I	Sub-station	13783.89	977.22	7	800.76
Asset-II	Sub-station	10561.12	747.06	7	635.93

Capital Cost allowed as on COD

61. Accordingly, the capital cost allowed in respect of the transmission assets as on COD is as follows:

(₹ in lakh)					
Assets	Capital Cost claimed in Auditor's Certificate as on COD (A)	Less: IDC disallowed due to time over-run not condoned	Less: Un-discharged IDC as on COD (B)	Less: IEDC disallowed due to time over-run not condoned	Capital Cost as on COD (C) = (A-B)
Asset-I	8294.31	83.28	7.84	33.37	8169.82
Asset-II	8280.10	94.76	16.71	33.80	8134.83

62. Further, the Petitioner is directed to submit the revised Auditor's Certificates at the time of truing up in case of Asset-I as per the approved COD.



Additional Capital Expenditure (“ACE”)

63. Regulations 24 and 25 of the 2019 Tariff Regulations provide as follows:

“24. Additional Capitalization within the original scope and up to the cut-off date:

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

(a) *Undischarged liabilities recognized to be payable at a future date;*

(b) *Works deferred for execution;*

(c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*

(d) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*

(e) *Change in law or compliance of any existing law; and*

(f) *Force Majeure events:*

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

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

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

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

a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*

b) *Change in law or compliance of any existing law;*

c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*

d) *Liability for works executed prior to the cut-off date;*

e) *Force Majeure events;*

f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and g) Raising of ash dyke as a part of ash disposal system.*



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

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

64. The Petitioner has claimed actual/ projected ACE in respect of the transmission assets for the 2019-24 tariff period on account of the balance and retention payments under Regulations 24(1)(a) and 24(1)(b) for the works executed within the cut-off date.

The details are as follows:

(₹ in lakh)

Assets	Actual/ Projected ACE		
	2019-20	2020-21	2021-22
Asset-I	2900.25	1575.07	1575.07
Asset-II	484.87	1120.82	1120.82

65. UPPCL has submitted that the ACE indicated in Form-1A is as per the books of accounts of the Petitioner Company. However, when compared with the Auditor's Certificate for capital cost, there is no mention of liability position, or the certificate of the capital cost on a cash basis. UPPCL has further submitted that the Auditor's Certificate should either mention that the capital cost is on a cash basis or position of liability as on COD should be specifically mentioned to portray the right picture. UPPCL has also submitted that the estimated expenditures (on a cash basis) for the Financial Years (FYs) 2020-21 and 2021-22 in respect of Asset-I, as per Auditor's Certificate, are ₹1575.07 lakh and ₹1575.07 lakh, respectively. However, in Form-1A and Form-7



(Statement of ACE after COD), ₹1391.27 lakh has been shown as the discharge of liabilities with ₹183.80 lakhs on account of ACE in 2021-22, totalling ₹1575.07 lakhs. This is in contradiction with the Auditor's Certificate, which does not talk about the position of liabilities at all. As per Form-4A (Statement of Capital Cost), ₹1391.27 lakh has been shown as un-discharged IDC, which was discharged in 2021-22, whereas in Form-6 (Financial Package up to COD), ₹1575.07 lakh has been shown as ACE. Similar ambiguity exists in respect of Asset- II as well. The Commission may direct the Petitioner to clarify the position. UPPCL has also submitted that the position of liabilities, being important for the determination of cash cost as also tariff, need to be certified by the Auditor together with the subsequent discharges thereof for prudence check.

66. In response, the Petitioner has submitted that the Auditor's Certificate is prepared on a cash basis except for the IDC, which is on an accrued basis. The Petitioner has further submitted that the ACE consists of liability payment and addition to the gross block, which is bifurcated in Form-1A, Form-7, and Form-4A. However, the Auditor's Certificate indicates the total payment made, i.e., on a cash basis.

67. The Petitioner, vide affidavit dated 28.6.2024, has submitted that the Commission's order dated 19.5.2024 in Petition No. 90/MP/2020 is a decree, and in view of the fact that no prejudice can be caused to the interests of the consumers, Regulation 25(1)(d) of the 2019 Tariff Regulations will be applicable and any consequences which follow by virtue of operation of law, has to be given effect to, which is the capitalization of the transmission charges in the capital cost of the project.

68. We have considered the submissions of the Petitioner and UPPCL. ACE claimed



on account of the balance and retention payments are allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The actual/ projected ACE allowed is subject to truing up in respect of the transmission asset, and the same is as follows:

(₹ in lakh)

Particulars	Asset-I		
	2019-20	2020-21	2021-22
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	2900.25	1575.07	1575.07
Add: IDC discharge	0.00	7.84	0.00
Total	2900.25	1582.91	1575.07

(₹ in lakh)

Particulars	Asset-II		
	2019-20	2020-21	2021-22
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	484.87	1120.82	1120.82
Add: IDC discharge	0.00	16.71	0.00
Total	484.87	1137.53	1120.82

Capital Cost as on 31.3.2024

69. Accordingly, the capital cost allowed in respect of the transmission assets as on 31.3.2024 is as follows:

(₹ in lakh)

Assets	Capital Cost claimed as on COD	Actual / Projected ACE			Total Capital Cost as on 31.3 2024
		2019-20	2020-21	2021-22	
Asset-I	8169.82	2900.25	1582.91	1575.07	14228.05
Asset-II	8134.83	484.87	1137.53	1120.82	10878.04

Debt-Equity Ratio

70. Regulations 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:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:



- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

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

(3) In case of the generating station and the transmission 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.

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

71. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 period in respect of the transmission assets are as follows:

(₹ in lakh)



Funding Asset-I	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	5718.87	70.00	9959.64	70.00
Equity	2450.95	30.00	4268.42	30.00
Total	8169.82	100.00	14228.05	100.00

(₹ in lakh)

Funding Asset-II	Capital Cost as on COD (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	5694.38	70.00	7614.63	70.00
Equity	2440.45	30.00	3263.41	30.00
Total	8134.83	100.00	10878.04	100.00

Depreciation

72. 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 Asset-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 asset

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

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

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

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of

a) twenty-five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or

b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”



73. We have considered the submissions of the Petitioner. The IT equipment has been considered as part of the gross block and depreciated using the Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure has been worked out after considering the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as 'Nil', i.e., the IT asset has been considered 100% depreciable. Depreciation allowed in respect of the transmission assets for the 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-I						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	8169.82	11070.07	12652.98	14228.05	14228.05
B	Addition during the year 2019-24 due to projected ACE	2900.25	1582.91	1575.07	0.00	0.00
C	Closing Gross Block (A+B)	11070.07	12652.98	14228.05	14228.05	14228.05
D	Average Gross Block (A+C)/2	9619.94	11861.53	13440.52	14228.05	14228.05
E	Average Gross Block (90% depreciable assets)	9432.03	11629.83	13177.97	13950.12	13950.12
F	Average Gross Block (100% depreciable assets)	187.91	231.70	262.55	277.93	277.93
G	Depreciable value (excluding IT equipment and software) (E*90%)	8488.83	10466.84	11860.17	12555.11	12555.11
H	Depreciable value of IT equipment and software (F*100%)	187.91	231.70	262.55	277.93	277.93
I	Total Depreciable Value (G+H)	8676.74	10698.54	12122.72	12833.04	12833.04
J	Weighted average rate of Depreciation (WAROD) (in %)	5.49%	5.49%	5.49%	5.49%	5.49%
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
L	Balance useful life at the beginning of the year (Year)	24.00	24.00	23.00	22.00	21.00
M	Depreciation during the year (D*J)	160.05	650.72	737.34	780.54	780.54
N	Cumulative Depreciation at the end of the year	160.05	810.77	1548.11	2328.65	3109.19
O	Remaining Aggregate Depreciable Value at the end of the year	8516.69	9887.77	10574.61	10504.39	9723.85



(₹ in lakh)

Asset-II						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	8134.83	8619.70	9757.22	10878.04	10878.04
B	Addition during the year 2019-24 due to projected ACE	484.87	1137.53	1120.82	0.00	0.00
C	Closing Gross Block (A+B)	8619.70	9757.22	10878.04	10878.04	10878.04
D	Average Gross Block (A+C)/2	8377.26	9188.46	10317.63	10878.04	10878.04
E	Average Gross Block (90% depreciable assets)	8249.31	9048.12	10160.05	10711.90	10711.90
F	Average Gross Block (100% depreciable assets)	127.95	140.34	157.59	166.15	166.15
G	Depreciable value (excluding IT equipment and software) (E*90%)	7424.38	8143.31	9144.04	9640.71	9640.71
H	Depreciable value of IT equipment and software (F*100%)	127.95	140.34	157.59	166.15	166.15
I	Total Depreciable Value (G+H)	7552.33	8283.65	9301.63	9806.85	9806.85
J	Weighted average rate of Depreciation (WAROD) (in %)	5.44	5.44	5.44	5.44	5.44
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00	23.00	22.00
M	Depreciation during the year (D*J)	138.11	499.48	560.86	591.32	591.32
N	Cumulative Depreciation at the end of the year	138.11	637.59	1198.44	1789.77	2381.09
O	Remaining Aggregate Depreciable Value at the end of the year	7414.22	7646.06	8103.18	8017.09	7425.76

Interest on Loan (“IoL”)

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

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company 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”.

75. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on COD for the respective loans. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing-up.

76. IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets is as follows:

(₹ in lakh)

Asset-I						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	5718.87	7749.05	8857.09	9959.64	9959.64
B	Cumulative Repayments up to Previous Year	0.00	160.05	810.77	1548.11	2328.65
C	Net Loan-Opening (A-B)	5718.87	7588.99	8046.32	8411.53	7630.99
D	Addition due to ACE	2030.18	1108.04	1102.55	0.00	0.00



Asset-I						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
E	Repayment during the year	160.05	650.72	737.34	780.54	780.54
F	Net Loan-Closing (C+D-E)	7588.99	8046.32	8411.53	7630.99	6850.45
G	Average Loan (C+F)/2	6653.93	7817.66	8228.92	8021.26	7240.72
H	Weighted Average Rate of Interest on Loan (in %)	7.84	7.79	7.79	7.79	7.79
I	Interest on Loan (G*H)	158.16	609.17	641.22	625.03	563.94

(₹ in lakh)

Asset-II						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	5694.38	6033.79	6830.06	7614.63	7614.63
B	Cumulative Repayments up to Previous Year	0.00	138.11	637.59	1198.44	1789.77
C	Net Loan-Opening (A-B)	5694.38	5895.68	6192.47	6416.18	5824.86
D	Addition due to ACE	339.41	796.27	784.57	0.00	0.00
E	Repayment during the year	138.11	499.48	560.86	591.32	591.32
F	Net Loan-Closing (C+D-E)	5895.68	6192.47	6416.18	5824.86	5233.54
G	Average Loan (C+F)/2	5795.03	6044.07	6304.33	6120.52	5529.20
H	Weighted Average Rate of Interest on Loan (in %)	7.48	7.48	7.48	7.48	7.48
I	Interest on Loan (G*H)	131.46	452.10	471.56	457.80	413.48

Return on Equity ("RoE")

77. Regulations 30 and 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 or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

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.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODE) occurs plus 350 basis point, subject to ceiling of 14%;”

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.”

78. The Petitioner has submitted that the MAT rate is applicable to it. MAT rate applicable in the year 2019-20 has been considered for the purpose of RoE, which shall be trued-up in accordance with Regulation 31(3) of the 2019 Tariff Regulations. Accordingly, RoE allowed in respect of the transmission assets is as follows:

(₹ in lakh)						
Asset-I						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	2450.95	3321.02	3795.89	4268.42	4268.42
B	Addition due to ACE	870.08	474.87	472.52	0.00	0.00
C	Closing Equity (A+B)	3321.02	3795.89	4268.42	4268.42	4268.42
D	Average Equity (A+C)/2	2885.98	3558.46	4032.16	4268.42	4268.42
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	164.39	668.35	757.32	801.69	801.69

(₹ in lakh)



Asset-II						
	Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	2440.45	2585.91	2927.17	3263.41	3263.41
B	Addition due to ACE	145.46	341.26	336.25	0.00	0.00
C	Closing Equity (A+B)	2585.91	2927.17	3263.41	3263.41	3263.41
D	Average Equity (A+C)/2	2513.18	2756.54	3095.29	3263.41	3263.41
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	143.16	517.73	581.36	612.93	612.93

Operation & Maintenance Expenses (“O&M Expenses”)

79. The O&M Expenses claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1					
Sub-station	346.99	864.51	895.11	927.33	959.69
Communication system	1.82	4.39	4.39	4.39	4.39
Total O&M Expenses	348.81	868.90	899.50	931.72	964.08
Asset-II					
Sub-station	239.75	817.92	846.88	877.41	908.02
Communication system	0.47	1.57	1.57	1.57	1.57
Total O&M Expenses	240.22	819.49	848.45	878.98	909.59

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

“35 (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the combined 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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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 years.*

(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.”*

81. We have considered the Petitioner's submissions. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations for Stage-I combined asset @ 2% of its cost. The Petitioner has made a 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 as well



as in 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.

82. The O&M Expenses allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Sub-station Bays (Numbers)					
765 kV: Aligarh ICT Bay I (GIS*)	1	1	1	1	1
400 kV: Aligarh ICT Bay (GIS*)	1	1	1	1	1
400 kV: Aligarh Line Bays (GIS*)	2	2	2	2	2
Norms (₹ lakh/bay)					
765 kV	31.507	32.620	33.761	34.951	36.176
400 kV	22.505	23.296	24.115	24.962	25.837
Total Sub-station	99.02	102.51	106.11	109.84	113.69
Transformer (MVA)					
765 kV: Aligarh 1500 MVA ICT	1500	1500	1500	1500	1500
Norms					
765 kV	0.491	0.508	0.526	0.545	0.564
Total Transformer	736.50	762.00	789.00	817.50	846.00
Total O&M Expenses	253.40	864.51	895.11	927.34	959.69

(₹ in lakh)

Asset-II					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Sub-station Bays (Numbers)					
765 kV: Aligarh ICT Bay I (GIS*)	1	1	1	1	1
400 kV: Aligarh ICT Bay (GIS*)	1	1	1	1	1
Norms (₹ lakh/bay)					
765 kV	31.507	32.620	33.761	34.951	36.176
400 kV	22.505	23.296	24.115	24.962	25.837
Total Sub-station	54.01	55.92	57.88	59.91	62.01
Transformer (MVA)					
765kV: Aligarh 1500 MVA ICT	1500	1500	1500	1500	1500
Norms					



Asset-II					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
765 kV	0.491	0.508	0.526	0.545	0.564
Total Transformer	736.50	762.00	789.00	817.50	846.00
Total O&M Expenses	239.75	817.92	846.88	877.41	908.01

**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*

Interest on Working Capital (“IWC”)

83. Regulations 34(1)(c), 34(3), 34(4), and 3(7) of the 2019 Tariff Regulations provides 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 annual fixed cost;

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

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

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission 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. Definition - *In these regulations, unless the context otherwise requires:-*

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

84. The Petitioner has submitted that it has computed the IWC for the 2019-24 period



considering the SBI base rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for the year 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for the year 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for the years 2021-22 and 2022- 23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for the year 2023-24. The components of the working capital and interest allowed thereon with respect to the transmission assets are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	69.63	72.04	74.59	77.28	79.97
Working Capital for Maintenance Spares (15% of O&M Expenses)	125.33	129.68	134.27	139.10	143.95
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	305.80	351.99	381.32	394.36	390.94
Total Working Capital	500.75	553.71	590.18	610.74	614.87
Rate of Interest for working capital (in %)	12.05	11.25	10.50	10.50	12.00
Interest of working capital	18.30	62.29	61.97	64.13	73.78

(₹ in lakh)

Asset-II					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	65.88	68.16	70.57	73.12	75.67
Working Capital for Maintenance Spares (15% of O&M Expenses)	118.58	122.69	127.03	131.61	136.20
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	271.26	288.64	309.94	319.88	318.37
Total Working Capital	455.72	479.48	507.54	524.61	530.24



Rate of Interest for working capital (in %)	12.05	11.25	10.50	10.50	12.00
Interest of working capital	16.65	53.94	53.29	55.08	63.63

Annual Fixed Charges for the 2019-24 Tariff Period

85. The transmission charges allowed in respect of the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-I					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	160.05	650.72	737.34	780.54	780.54
Interest on Loan	158.16	609.17	641.22	625.03	563.94
Return on Equity	164.39	668.35	757.32	801.69	801.69
O&M Expenses	253.40	864.51	895.11	927.34	959.69
Interest on Working Capital	18.30	62.29	61.97	64.13	73.78
Total	754.30	2855.04	3092.96	3198.73	3179.64

(₹ in lakh)

Asset-II					
Particulars	2019-20 (Pro-rata for 111 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	138.11	499.48	560.86	591.32	591.32
Interest on Loan	131.46	452.10	471.56	457.80	413.48
Return on Equity	143.16	517.73	581.36	612.93	612.93
O&M Expenses	239.75	817.92	846.88	877.41	908.01
Interest on Working Capital	16.65	53.94	53.29	55.08	63.63
Total	669.13	2341.17	2513.95	2594.54	2589.37

Filing Fee and Publication Expenses

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



Licence Fee and RLDC Fees and Charges

87. The Petitioner shall be entitled to 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 to recovery of RLDC fees and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

88. The Petitioner has submitted that if GST is levied at any rate and at any point of time in the 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 and billed separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of the demand from the Government/ Statutory Authorities; the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

90. The Petitioner has submitted that security expenses in respect of the transmission assets has not been claimed in the instant Petition, and it would file a separate Petition for claiming the overall security expenses and consequential IWC.

91. UPPCL has submitted that the Commission may not allow any ad-hoc expenditure on account of the security expenses by escalating the actual of 2018-19 by 3.5% p.a., which will be against Regulation 35(3)(c) of 2019 Tariff Regulations and



outside the ambit of the instant Petition as well.

92. In response, the Petitioner has reiterated its submissions as made in the Petition.

93. We have considered the above submissions of the Petitioner and UPPCL. The Petitioner has claimed the consolidated security expenses for all the transmission assets owned by it on a projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in the year 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

94. The Petitioner has prayed to be allowed its claim of capital spares at the end of the tariff period as per actual.

95. We have considered the Petitioner's submissions. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations at the time of truing up of the 2019-24 tariff period.

Sharing of Transmission Charges

96. The Petitioner vide affidavit dated 28.6.2024 has submitted that the Commission, in its order dated 19.5.2024 in Petition No. 90/MP/2019, has held that the applicable transmission charges from the deemed COD (i.e., 8.8.2019) of the AP Line and the Prithala Sub-station of GPTL to 29.10.2019 shall be payable by HVPNL and the



Petitioner in the ratio of 50:50. The Petitioner also submitted that in Petition No. 90/MP/2019 there ought to have been no liability imposed upon it as despite availability of its assets after successful charging on 30.10.2019, GPTL's assets, namely, AP Line and Prithala Sub-station were prevented from providing regular service due to delay in the commissioning of the downstream 220 kV lines at Prithala Sub-station under the scope of HVPNL and/or due to a delay in the commissioning of the GPTL's assets connected to AP line.

97. We have considered the submissions of the Petitioner. The COD of Asset-I and Asset-II has been approved as 12.12.2019 under Regulation 5(2) of the 2019 Tariff Regulations as the associated 220 kV downstream transmission system under the scope of HVPNL was not ready. Regulation 6(2) of the 2019 Tariff Regulations, which contains detailed provisions with regard to liability for mismatch of the COD between the generating station and transmission system or between two transmission licensees of a connected transmission system, is applicable in the case of the transmission asset. The Regulation 6(2) of the 2019 Tariff Regulations provides as follows:

"6. Treatment of mismatch in date of commercial operation:

.....

(2) In case of mismatch of the date of commercial operation of the transmission system and the transmission system of other transmission licensee, the liability for the transmission charges shall be determined as under:

(a) Where an interconnected transmission system of other transmission licensee has not achieved the commercial operation as on the date of commercial operation of the transmission system (which is not before the SCOD of the interconnected transmission system) and the Commission has approved the date of commercial operation of such transmission system in terms of clause (2) of Regulation 5 of these regulations, the other transmission licensee shall be liable to pay the transmission charges of the transmission system in accordance with clause (5) of Regulation 14 of these regulations to the transmission licensee till the interconnected transmission system achieves commercial operation:

(b) Where the transmission system has not achieved the commercial operation as on the date of commercial operation of the interconnected transmission system of other transmission licensee (which is not before the SCOD of the transmission, the



transmission licensee shall be liable to pay the transmission charges of such interconnected transmission system to the other transmission licensee or as may be determined by the Commission, in accordance with clause (5) of Regulation 14 of these regulations, till the transmission system achieves the commercial operation.”

98. As stated above, the COD of the transmission asset has been approved as 12.12.2019 under Regulation 5(2) of the 2019 Tariff Regulations. As per Regulation 6(2)(b) of the 2019 Tariff Regulations, if an inter-connected transmission system of another transmission licensee is not ready on the COD of the transmission asset and if the COD of the transmission asset has been approved under Regulation 5(2) of the 2019 Tariff Regulations, the defaulting transmission licensee is required to bear the transmission charges of the transmission asset of the other transmission licensee till the COD of the inter-connected transmission system under its scope. In the instant case, the TBCB line under the scope of GPTL became ready on 8.8.2019 (as approved vide order dated 19.5.2024 in Petition No. 90/MP/2020), and the instant transmission assets could not be put to regular service on account of the non-readiness of 220 kV network at Prithala Sub-station which were under the scope of HVPNL. The power flow was started at Aligarh Sub-station on 18.3.2020 (238 MW on each ICT) at 18:41 hrs. Therefore, the transmission charges in the case of Asset-I and Asset-II from 12.12.2019 up to 17.3.2020 shall be borne by HVPNL, and from 18.3.2020, the transmission charges shall be included in the PoC Pool.

99. The With effect from 1.7.2011, the sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed, and the sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of 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 periods shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

100. To summarise,

(a) AFC allowed in respect of the transmission assets for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)					
Assets	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-I	754.30	2855.04	3092.96	3198.73	3179.64
Asset-II	669.13	2341.17	2513.95	2594.54	2589.37

101. Annexure given hereinafter shall form a part of the order.

102. This order disposes of Petition No. 649/TT/2020 in terms of the above discussions and findings.

Sd/-

(Jishnu Barua)
Chairperson

sd/-

(Arun Goyal)
Member

sd/-

(Ramesh Babu V.)
Member



Annexure

Asset-I

Particulars	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE 2019-24 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
					2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	7885.23	5,847.19	13732.42	5.28	490.24	604.47	684.94	725.07	725.07
PLCC	125.01	92.70	217.71	6.33	9.32	11.49	13.02	13.78	13.78
IT Equipment and software	159.59	118.34	277.93	15.00	28.19	34.75	39.38	41.69	41.69
Total	8169.82	6,058.23	14228.05		527.74	650.72	737.34	780.54	780.54
Average Gross Block (₹ in lakh)					9619.94	11861.53	13440.52	14228.05	14228.05
Weighted Average Rate of Depreciation (in %)					5.49	5.49	5.49	5.49	5.49



Asset-II

Particulars	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-24 (₹ in lakh)			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	7952.72	2,681.80	10634.52	5.28	432.42	474.29	532.58	561.50	561.50
PLCC	57.87	19.51	77.38	6.33	3.77	4.14	4.65	4.90	4.90
IT Equipment and software	124.24	41.91	166.15	15.00	19.19	21.05	23.64	24.92	24.92
Total	8134.83	2,743.22	10878.04		455.38	499.48	560.86	591.32	591.32
			Average Gross Block (₹ in lakh)		8377.26	9188.46	10317.63	10878.04	10878.04
			Weighted Average Rate of Depreciation (in %)		5.44	5.44	5.44	5.44	5.44

