CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

<u>Petition No.196/TT/2022</u>

Coram:

Shri I.S. Jha, Member
Shri Arun Goyal, Member
Shri P.K. Singh, Member

Date of Order: 29.04.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of transmission tariff from COD to 31.3.2024under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Asset-1: 2 Numbers of 220 kV line bays at 400/220 kV Cochin East (Pallikkara) Sub-station for termination of Cochin East (Pallikara)-Aluva 220 kV D/C line, to be implemented by KSEBL and Asset-2: 2 Numbers of 400 kV line bays at Kozhikode (Areakode) Sub-station for termination of North Trissur (Madakkathara)-Kozhikode (Areakode) 400 kV (Quad) D/C line to be implemented by KSEBL under System strengthening-XXVI in Southern Region.

And in the matter of:

Power Grid Corporation of India Limited,
'SAUDAMINI', Plot No-2,Sector 29,
Gurgaon-122001 (Haryana). **.....Petitioner**

Versus

1. Tamil Nadu Generation and Distribution Corporation Limited,
(Formerly Tamil Nadu Electricity Board-TNEB),
NPKRR Maaligai, 800, Anna Salai, Chennai- 600002.

2. Transmission Corporation of Andhra Pradesh Limited (APTRANSCO),
VidyutSoudha, APTRANSCO,
Near Axis Bank ATM, Eluru Road,
Gunadala, Vijaywada- 520004.

3. Kerala State Electricity Board (KSEB),
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.

4. Electricity Department,
Government of Goa,
Vidyuti Bhawan, Panaji,
Goa-403001.

5. Electricity Department,
Government of Pondicherry,
Pondicherry-605001.

6. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL),
P&T Colony, Seethmmadhara,
Vishakhapatnam, Andhra Pradesh.

7. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL),
Srinivasasa Kalyana Mandapan Backside,
Tiruchanoor Road, Kesavayan Gunta,
Tirupati-517501.

8. Southern Power Distribution Company of Telangana Limited (TSSPDCL),
6-1-50, Corporate Office, Mint Compound,
Hyderabad-500063.

9. Northern Power Distribution Company of Telangana Limited (TSNPDCL),
House No. 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta,
Hanamkonda, Warangal-506001, Telangana.

10. Bangalore Electricity Supply Company Limited (BESCOM),
Corporate Office, K.R. Circle,
Bangalore-560001.

11. Gulbarga Electricity Supply Company Limited (GESCOM),
Station Main Road, Gulburga, Karnataka.

12. Hubli Electricity Supply Company Limited (HESCOM),
Navanagar, PB Road, HUBLI, Karnataka.

13. MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001.

14. Chamundeswari Electricity Supply Corporation Limited (CESC),
927,LJ Avenue, Ground Floor, New Kantharaj Urs Road,
Saraswatipuram, Mysore-570009.

15. Transmission Corporation of Telangana Limited,
Vidhyut Sudha, Khairatabad,
Hyderabad-500082.

16. Tamil Nadu Transmission Corporation,
NPKRR Maaligai, 800, Anna Salai,
Chennai-600002.

17. Karnataka Power Transmission Corporation Limited (KPTCL),
Kaveri Bhavan, Bangalore-560009. **…Respondents**

For Petitioner	**:**	Shri S. S. Raju, PGCIL Shri D.K. Biswal, PGCIL Shri Ved Prakash Rastogi, PGCIL Shri Zafrul Hasan, PGCIL Shri Vipin Joseph, PGCIL
For Respondents	**:**	None

ORDER

Power Grid Corporation of India Limited has filed the instant petition for determination of transmission tariff for the period from COD to 31.3.2024under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations")in respect of Asset-1: 2Nos of 220kV line bays at 400/220 kV cochin East (Pallikkara) Sub-station for termination of Cochin East (Pallikara) – Aluva 220kV D/C line to be implemented by KSEBL and Asset-2: 2 Nos. of 400kV line bays at Kozhikode (Areakode) Sub-station for termination of North Trissur (Madakkathara)-Kozhikode (Areakode) 400 kV (Quad) D/C line (hereinafter referred to as "transmission assets"), to be implemented by KSEBL under System Strengthening-XXVI in Southern Region (hereinafter referred to as "the transmission project")under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (herein after referred to as "the 2019 Tariff Regulations").

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 the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.4 above.*
>
> *3)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"*

4)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.

5)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.

6)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.

7)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.

8)Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.

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

10)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.

11)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

3. The brief facts in the matter are as follows:

a) The Petitioner has been entrusted with the implementation of the transmission project. The Investment Approval (IA) of the transmission project was accorded by Board of Directors (BoD) of the Petitioner vide the Memorandum Ref:C/CP/PA1920-03-OE-IA002 dated 21.6.2019 at an estimated cost of ₹1918 lakh including IDC of ₹98 lakh, based on December, 2018 price level.

b) The scope of the scheme was discussed and agreed in the 41st and 42nd SCM of Southern Region Constituents held on 22.9.2017 and 27.4.2018 respectively, which was further ratified by SRPC in the 33rd and 34th SRPC meetings held on 17.2.2018 and 11.8.2018 respectively.

c) The Petitioner vide affidavit dated 16.11.2022 has submitted Revised Cost Estimate (RCE) which has been approved by Competent Authority vide Memorandum No. C/CP/PA2223-04-0M-RCE002 dated 6.7.2022, at an estimated cost of ₹1861lakh including IDC of ₹ 026lakh, at May, 2022price level.

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

Sub-station

Part A:

400/220kV Cochin Sub-station East (Extn.)

220 kV

i. Line bays (AIS): 2 numbers (For termination of Cochin East (Pallikkara)-Aluva 220kV D/Cline, to be implemented by KSEBL)

Part B:

400/220 kV Kozhikode Sub-station (Extn)

400 kV

400 kV Line Bay: 2 numbers (For termination of North Trissur (Madakkathara)-Kozhikode (Areekode) 400 kV (Quad) D/Cline, to be implemented by KSEBL)

e) The details of the transmission assets under this transmission project are as follows:

Name of Asset	Schedule Commissioning as per IA	Actual COD
Asset-1: 2 Numbers of 220 kV line bays at 400/220 kV cochin East (Pallikkara) Sub-station for termination of Cochin East (Pallikara)-Aluva 220 kV D/Cline, to be implemented by KSEBL (Part -A)	20.12.2020	6.3.2021
Asset-2: 2 Numbers of 400 kV line bays at Kozhikode (Areakode) Sub-station for termination of North Trissur (Madakkathara)-	20.3.2021	9.3.2021

Kozhikode (Areakode) 400 kV (Quad) D/Cline, to be implemented by KSEBL (Part-B)		

f) The complete scope of the transmission project as per IA is completed and is covered in the instant petition.

g) The Part A of the transmission Project was scheduled to be put into commercial operation in 18 months and Part B of the transmission project was scheduled to be put into commercial operation in 21 months from the date of IA. Accordingly, the scheduled COD for Asset-1 was 20.1.2020 and for Asset-2 was 20.3.2021. The Asset-1 was put into commercial operation on 6.3.2021 and Asset-2 was put into commercial operation on 9.3.2021. Thus, there is a time over-run of 76 daysin case of Asset-1 and no time over-run in case of Asset-2.

4. 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-1				
Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
Depreciation	2.34	43.27	53.56	53.56
Interest on Loan	1.78	32.20	37.71	34.31
Return on Equity	2.26	42.69	53.59	53.59
O&M Expenses	0.23	3.67	4.11	4.13
Interest on Working Capital	3.39	49.27	50.95	52.71
Total	**10.00**	**171.10**	**199.92**	**198.30**

(₹ in lakh)

Asset-2				
Particulars	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
Depreciation	2.43	47.97	57.45	57.45
Interest on Loan	1.73	33.82	38.43	34.80
Return on Equity	2.21	45.17	55.31	55.31
O&M Expenses	0.26	4.60	5.04	5.08
Interest on Working Capital	4.21	69.15	71.57	74.07
Total	**10.84**	**200.71**	**227.80**	**226.71**

5. 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-1				
Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
O&M Expenses	3.97	4.11	4.25	4.39
Maintenance Spares	7.14	7.39	7.64	7.91
Receivables	17.31	21.09	24.65	24.38
Total	28.42	32.59	36.54	36.68
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	0.23	3.67	4.11	4.13

(₹ in lakh)

Asset-2				
Particulars	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
O&M Expenses	5.57	5.76	5.96	6.17
Maintenance Spares	10.02	10.37	10.74	11.11
Receivables	21.21	24.74	28.08	27.87
Total	36.80	40.87	44.78	45.15
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	0.26	4.60	5.04	5.08

6. The Respondents are distribution licensees, power departments and transmission licensees, which are procuring transmission services from the Petitioner, mainly beneficiaries of the Southern Region.

7. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. None of the Respondents have filed reply in the matter.

8. The hearing in this matter was held on 9.1.2023 and the order was reserved.

9. Having heard the representatives of the Petitionerand after perusal of the materials on record, we proceed to dispose of the petition.

10. This order is issued considering the submissions made by the Petitioner in the petition, the Petitioner's affidavit dated 3.8.2022, 16.11.2022 and 1.2.2023.

Date of Commercial Operation

11. The Petitioner has claimed COD of Asset-1 and Asset-2 as 6.3.2021 and 9.3.2021 respectively.

12. 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 regardingthe 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.

(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

a)the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or
b)the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or
c)the date of two years from the date of commencement of production:

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s);

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation."

13. In support of actual COD of Asset-1 and Asset-2, the Petitioner has submitted CEA Energisation Certificates dated 19.2.2021 for Asset-1 and 23.2.2021for Asset-2 for Energizing Electrical Installations under Regulation 43 of the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010, SRLDC certificates dated 22.3.2021 for Asset-1 and 9.3.2021 for Asset-2 for successful completion of trial operation and also the CMD Certificates.

14. Taking into consideration of CEA Energisation Certificates, RLDC Charging Certificates and CMD Certificates as required under Grid Code, the

COD of the Asset-1 and Asset-2 has been approved as 6.3.2021 and 9.3.2021 respectively.

Capital Cost

15. Regulations 19 of the 2019 Tariff Regulations provides as follows:

> ***"19.Capital Cost:*** *(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*
>
> *(2) The Capital Cost of a new project shall include the following:*
>
> *(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
> *(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
> *(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
> *(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
> *(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
> *(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
> *(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
> *(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
> *(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
> *(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
> *(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
> *(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
> *(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
> *(n) Expenditure on account of change in law and force majeure events; and*
> *(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

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

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

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

16. The Petitioner has claimed actual expenditure incurred up to COD and Additional Capital Expenditure (ACE) projected to be incurred from COD to 31.3.2021. The details of capital cost incurred up to COD and projected to be incurred during 2019-20and 2020-21as duly certified vide Auditor's Certificate dated 28.5.2021 are as follows:

(₹ in lakh)

Particulars	FR apportioned approved cost	Expenditure up to COD	Projected ACE		Estimated completion cost (as on 31.3.2024)
			2020-21	2021-22	
Asset-1	790.67	569.48	2.29	379.28	951.05
Asset-2	1127.34	629.76	0.00	351.80	981.56
Total	1918.01	1199.24	2.29	731.08	1932.61

Cost over-run

17. The estimated completion cost of the transmission assets based on the Auditor's Certificate works cost vis-à-vis FR apportioned approved cost for the transmission assets covered under the instant petition are as follows:

(₹ in lakh)

Particulars	Approved Cost (a)	Estimated completion cost (b)	Cost Variation (c=b-a)
Asset-1	790.67	951.05	160.38
Asset-2	1127.34	981.56	-145.78

18. The estimated completion cost for Asset-1 is higher than the FR apportioned approved cost for Asset-1. The Petitioner has submitted the following reasons for cost variation of the project :

a. **Variation in IDC cost:**

Decrease in IDC is attributable to variation in rate of interest considered in FR v/s Actuals. It may be mentioned that in FR, IDC was calculated considering rate of interest for domestic loans @10.5%. However, in actual, the weighted average rate of interest of loans is around 7.49%.

The actual IDC accrued upto COD has been considered in the tariff claimed.

b. Variation in IEDC cost:

During estimation 3% and 10.75% of equipment cost has been considered as contingency and IEDC respectively. The actual amount of IEDC has been considered in the tariff claimed.

c. Variation in equipment cost:

Being a Government enterprise, the Petitioner has the obligation for indigenous development of manufacturer as well as to adhere to the Government of India guidelines. Accordingly, the Petitioner has been following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. Route of Domestic Competitive Bidding (DCB) process have been followed to award the transmission project. Through this process, lowest possible market prices for required product/services/as per detailed designing is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions, design and site requirements. Whereas, the estimates are prepared by the Petitioner as per well-defined procedures for cost estimate. The FR cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts/general practice. It is submitted that the cost estimate of the project is on the basis of October, 2014 price level.

19. The Petitioner vide affidavit dated 16.11.2022 has submitted RCE.

20. The details of apportionment submitted by the Petitioner as per RCE is as follows:

(₹ in lakh)

Particulars	FR Apportioned Approved Cost	RCE Apportioned Approved Cost	Estimated completion cost as per latest Auditor Certificate	Variation w.r.t. RCE
	a	b	c	c-b
Asset-1	790.67	867.59	951.05	83.46
Asset-2	1127.34	993.41	981.56	-11.85
Total	**1918.01**	**1861.00**	**1932.61**	**71.61**

21. The Petitioner has further submitted the following reasons of cost variation in comparison to RCE:

a. **Reasons for cost variation**

The comparison of RCE cost of ₹1816lakhis carried out against the approved cost of ₹1918lakh and is as follows:

Sl. No.	Variation on account of:	Variation	
		(₹ in crore)	(in%)
(i)	**Price Variation**		
a	DPR to LOA for approved scope (on competitive bidding while awarding)	(-) 0.66	(-) 3.44%
b	Provision presently envisaged as per contract price variation clause. (based on applicable indices)	NIL	NIL
	Sub-Total (PV)	**(-) 0.66**	**(-) 3.44%**
(ii)	**Variation in quantities of approved Items**	**1.68**	**8.78%**
	Sub-Total (i to ii)	**1.02**	**5.34%**
(iii)	**Other Reasons (IEDC and IDC)**		
A	IEDC (including Contingencies)	(-) 0.87	(-) 4.55%
b	IDC	(-) 0.72	(-) 3.77%
	Sub- Total (IEDC & IDC)	**(-) 1.59**	**(-) 8.29%**
	GRAND TOTAL	**(-) 0.57**	**(-) 2.96%**

22. The Petitioner has further submitted head-wise variation in cost as follows:

a) **<u>Price Variation from DPR to LOA (PV) (Decrease of ₹0.66 lakh : (-) 3.44%)</u>**

There is negative variation of ₹0.66 lakh from the time of approval of project till award of various contracts (DPR to LOA) based on prices received as per transparent competitive bidding. The contracts for all packages under this project were awarded only after approval of Competent Authority as per DoP to the lowest evaluated and responsive bidder, on the basis of Competitive Bidding by the Petitioner.

b) **<u>Variation in quantity of approved items (Net Increase of ₹168lakh:8.78%)</u>**

There is a variation in cost of infrastructure works w.r.t. DPR provision of ₹40 lakh (₹20 lakh for each sub-station) for miscellaneous infrastructure works. Further, quantities of various equipment and civil works have been considered as per actual site requirement and final amendments. There has been an increase in Sub-station Automation System (Up-gradation) item, increase in quantities of control and relay panels, changes in various quantities of civil works like RCC, reinforcement steel, etc., decrease in quantities of equipment structure w.r.t DPR quantities, and also there is a decrease in quantities of PLCC equipment resulting in overall net increase in cost of project by ₹168 lakh.

c) **<u>Variation in IDC and IEDC (Net decrease of ₹159lakh : (-) 8.29%)</u>**

Total IDC and IEDC under the transmission project have decreased by ₹159 lakh in comparison to approved cost, which works out to (-) 8.29% as per the following break-up:

i. **Decrease in IEDC**

As per the IA, the IEDC including contingencies for the transmission project was estimated at ₹220 lakh on total DCO cost (i.e. IEDC @10.75% and contingency @3% on total DCO cost) whereas in the RCE it is has been considered as per actual expenditure which works out to ₹133 lakh resulting in overall decrease of ₹87 lakh.

ii. **Decrease in IDC**

Interest during Construction (IDC) for the transmission project as per the IA was estimated as ₹98 lakh whereas based on actual funds flow, the IDC for the project in the RCE works out to ₹26 lakh. Thus, there is a decrease of ₹72 lakh in IDC.

23. We have considered the submissions of the Petitioner. The total FR approved cost of the transmission assets is ₹1981.01 lakh and it has been reduced in the RCE to ₹1861.00 by the Petitioner.

24. It is observed that the FR apportioned approved cost of Asset-1 is ₹790.67 lakh and the Petitioner has revised the same in the RCE to ₹867.59 lakh. The estimated completion of Asset-1 is ₹951.05. Thus, the estimated completion of Asset-1is more than the FR and RCE apportioned approved cost. The estimated completion cost ofAsset-1 exceeds the RCE apportioned approved cost by ₹83.46 lakh. The estimated completion cost of Asset-1 is restricted to RCE apportioned approved cost of ₹867.59 lakh. The Petitioner is directed to submit the reasons for cost variation of Asset-1 at the time of truing-up and the same will be reviewed at the time of truing-up.

25. The estimated completion cost of Asset-2 is within FR cost and also with RCE apportioned approved cost.

Time over-run

26. As per I.A. dated 21.6.2019, the Part-A of the transmission project was scheduled to be put into commercial operation in 18 months and Part B-of the transmission project was scheduled to be commissioned in 21 months from the date of IA. Accordingly, the scheduled COD for the Asset-1 was 20.12.2020 and for Asset-2 was 20.3.2021 respectively. The Asset-1 was put into commercial operation on 6.3.2021 and Asset- 2 was put into commercial operation on 9.3.2021. Thus, there is a time over-run of 76 days for Asset-1 and there is no time over-run in case of Asset-2.

27. The Petitioner has submitted that the main reason for delay in case of Asset-1is due to Covid-19 pandemic which has completely stalled the work for around 70 days. The Petitioner has submitted the following in this regard:

Delay due to Worldwide COVID-19 Pandemic:

28. Due to COVID-19 there was lockdown on four occasions and it affected the implementation of the transmission assets. The details of the lockdown are as follows.

- Phase 1: 25.3.2020-14.4.2020 (21 days)
- Phase 2: 15.4.2020-3.5.2020 (19 days)
- Phase 3: 4.5.2020-17.5.2020 (14 days)
- Phase 4: 18.5.2020-31.5.2020 (14 days)

29. The government locked down of all the cities and restricted movement from one place to another affected the supplier chain, transportation shortage, worker absenteeism due to illness/quarantine/ migration labour shortages, which resulted in decrease in output and delayed all country wide on going projects. The site

was closed, or access was restricted as a result of measures to contain the COVID-19 outbreak. The contractor was not able to carry out the works as a result of action by governments to prevent the spread of the outbreak.

30. The Petitioner has also faced specific COVID-19 related issues like supplier delivery issues, worker absenteeism due to illness, delayed issuance of permits, travel restrictions, and lost time or inefficiencies due to the need to practice social distancing on the job site had prolific cost and schedule consequences. Also, lack of engineering and technical support and supply chain disruptions impacted project schedule and implementations. Thus, commissioning of power projects faced delays due to squeezing of supply lines and construction activities. When construction resumed, additional delays and inefficiencies were faced that had the potential to increase costs and further pushed back completion dates. It was difficult to start the construction works. The biggest hurdle was that of the supply chain not yet being restored. Besides there were too many hotspots and there were too many risks involved to immediately start construction, one of them was to do with the fact that if anybody gets infected on the construction site after work has started, the area would be sealed and all related people will be quarantined for 14-28 days. Construction came to a grinding halt. Due to covid pandemic, the work came to stand still for almost 5-6 months and gradually established the construction activities as per Government directives.

31. Further, due to lockdown, Ministry of Power (MoP), Government of India vide circular No. 3/1/2020-Trans dated 27.7.2020 stated that all inter-state projects whose SCOD is beyond 25.3.2020 and which were under construction on 25.3.2020, will get an extension of 5 months in respect of SCOD due to the nationwide lockdown restrictions for containment of the spread of Covid-19

pandemic. Accordingly, the Petitioner has prayed to condone the time over-run in case of Asset-1as it was out of the control of the Petitioner under Regulation 22(2)(a) of the 2019 Tariff Regulations.

32. The Petitioner has submitted Form-12 wherein the Petitioner has submitted the chronology of the activities of time over-run of Asset-1 and the same is as follows:

Sl. No.	**Description of Activity/Works/Service**	**Original schedule (As per Planning)**		**Actual achieved (As per actual)**		**Agency responsible and whether**	**Reasons for delay**
		Start date	**Completion date**	**Start date**	**Completion date**	Time over-run was beyond the control of the Petitioner	The main reason for delay is due to the world wide Covid-19 pandemic which had completely stalled the work. Further, due to lockdown, Ministry of Power, Government of India vide circular no.3/1/2020-trans dated 27th July 2020 stated that all inter-State projects whose SCOD is beyond 25th March,2020, shall get an extension of 5 months in respect of SCOD due to the nationwide lockdown restriction for containment of the spread of Covid-19 pandemic.
1	Award of supply & erection package	22.7.2019	22.7.2019	25.7.2019	25.7.2019		
2	Supply of Materials	22.1.2020	24.9.2020	20.1.2020	28.10.2020		
3	Civil works	22.12.2019	14.11.2020	15.12.2019	24.12.2020		
4	Erection works	22.3.2020	16.11.2020	6.7.2020	20.1.2021		
5	Testing & Commission-ing	20.11.2020	20.12.2020	15.1.2021	6.3.2021		

33. We have considered the submission of the Petitioner. The time over-run of 76 days in case of Asset-1 has been attributed by the Petitioner to of Covid-19. It is observed that MoP vide letter dated 27.7.2020 has extended the SCOD in respect of inter-State transmission project by 5 months due to COVID-19 pandemic. The relevant extracts of the letter dated 27.7.2020 of MoP, which provided extension of 5 months in respect of SCOD for inter-State transmission project is as follows:

"Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects
Sir,

I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the nationwide lockdown measures announced since 25th march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID-19 pandemic.
2. It has been, therefore, decided that;
i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD
ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020
iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months."

34. As per IA, the schedule COD of Asset-1 is 20.12.2020. In terms of the above letter dated 27.7.2020, the Petitioner has got time upto20.5.2021 for completion of Asset-1. The Petitioner has completed Asset-1 and put into commercial operation on 6.3.2021. Hence, there is no time over-run in declaring the commercial operation of the transmission asset as per the MoP's letter dated 27.7.2020. The scheduled COD of Asset- 2 was 20.3.2021. The Asset-2 was put into commercial operation on 9.3.2021. Thus, there is no time over-run in case of Asset-2.

Interest During Construction (IDC)

35. The Petitioner has claimed IDC of ₹12.68 lakh in respect of Asset-1 and IDC of ₹13.16 lakh in respect of Asset 2 and has submitted the Auditor's Certificate dated 28.5.2021 in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

36. The loan details submitted in Form-9C for the 2019-24 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on cash basis and accrual basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. Further,

adjustment on account of time over-run has been made to arrive at the admissible IDC.

37. Accordingly, based on the information furnished by the Petitioner, IDC considered, is as follows:

(₹ in lakh)

Particulars	IDC as per Auditor's Certificate	IDC allowable	IDC disallowed due to computational difference	IDC discharged as on COD	IDC Un-discharged as on COD	IDC discharged during 2021-22
	A	B	C=A-B	D	E=B-D	F
Asset-1	12.68	12.66	0.02	5.08	7.57	7.57
Asset-2	13.16	13.16	0.00	5.30	7.86	7.86

Incidental Expenditure During Construction (IEDC)

38. The Petitioner has submitted that the entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and is paid up to COD.

39. We have considered the submissions of the Petitioner and note that IEDC of ₹65.60 lakh for Asset-1 and ₹66.90 lakh for Asset-2 has been claimed by the Petitioner and in support the Petitioner has filed Auditor's Certificate. The entire IEDC has been discharged as on COD in respect of the transmission assets. Accordingly, IEDC of ₹65.60 lakh for Asset-1 and ₹66.90 lakh for Asset-2 is allowed.

Initial Spares

40. Regulation 23(d) of the 2019 Tariff Regulations provides as follows:

"(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%”

41. The Petitioner has claimed the following Initial Spares:

Particulars	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial spares claimed (₹ in lakh)	Ceiling limit (in %)
Asset-1	802.36	37.57	6.00
Asset-2	859.46	40.92	6.00

42. The details of discharge of Initial Spares claimed by the Petitioner as submitted areas follows:

(₹ in lakh)

Particulars	As on COD	2020-21	2021-22	2022-23	2023-24
Asset-1	32.96	0.00	4.61	0.00	0.00
Asset-2	36.56	0.00	4.36	0.00	0.00

43. We have considered the submissions of the Petitioner. The initial spares claimed by the Petitioner towards Asset-1 and Asset-2 are within ceiling limit of 6%. The Initial Spares allowed in respect of the transmission assets are as follows:

Particulars		Plant & Machinery Cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2019 Tariff Regulations	Allowable Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Discharge of Initial Spares as on COD (₹ in lakh)		
		(A)	(B)	(C)	D=(A-B) * C/(100-C)	(E)	As on COD	2020-21	2021-22
Asset-1	Sub-station (Brown field)	802.36	37.57	6%	48.82	37.57	32.96	0.00	4.61
Asset-2		859.46	40.92	6%	52.25	40.92	36.56	0.00	4.36

Capital Cost allowed as on COD

44. In view of the above, the capital cost approved 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)	Less: disallowed IDC (Computational Difference)	Less: Un-discharged IDC (as on COD)	Less: excess Initial Spares	Less: IEDC	Capital cost (as on COD)
	A	B	C	D	E	E= A-B-C-D-E
Asset-1	569.48	0.02	7.57	0.00	0.00	561.88
Asset-2	629.76	0.00	7.86	0.00	0.00	621.90

Additional Capital Expenditure

45. Regulation 24 of the 2019 Tariff Regulations provides as follows:

"24. Additional Capitalisation within the original scope and upto 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 23of 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."

46. The details of the ACE claimed by the Petitioner are as follows:

Asset-1 **(₹ in lakh)**

Year	Land	Building	Transmission line	Sub-station	PLCC	IT Equipment and Software	Total
2020-21	0.00	0.00	0.00	2.29	0.00	0.00	2.29
2021-22	0.00	43.75	0.00	279.81	51.48	4.25	379.28

Asset-2 **(₹ in lakh)**

Year	Land	Building	Transmission line	Sub-station	PLCC	IT Equipment and Software	Total
2020-21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2021-22	0.00	42.04	0.00	291.13	12.38	6.25	351.80

47. The Petitioner has submitted that ACE incurred after COD is to be dealt in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations. Further, ACE incurred/projected to be incurred is mainly on account of Balance and Retention Payments and, therefore, the same may be allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations.

48. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner is on account of Balance and Retention Payments and accordingly it is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations, which are as follows:

(₹ in lakh)

Asset-1	ACE	
	2020-21	**2021-22**
ACE to the extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	2.29	295.83*
Add: Un-discharged of IDC as on COD	0.00	7.57
Total	**2.29**	**303.42**

** ₹ 83.45 lakhs disallowed from ACE in FY 2021-22 in order to restrict completion cost as per apportioned cost in RCE*

(₹ in lakh)

Asset-2	ACE	
	2020-21	2021-22
ACE to the extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	0.00	351.8
Add: Un-discharged of IDC as on COD	0.00	7.86
Total	**0.00**	**359.66**

Capital Cost for the 2019-24 tariff period

49. In view of the above, the capital cost considered in respect of the transmission assets for determination of the tariff for the 2019-24 tariff period is as follows:

(₹ in lakh)

Assets	Capital cost as per RCE	Capital cost (as on COD)	ACE allowed		Capital cost allowed as on 31.3.2024
			2020-21	2021-22	
Asset-1	867.59	561.88	2.29	303.42	867.59
Asset-2	993.41	621.90	0.00	359.66	981.56

Debt-Equity Ratio

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

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

Provided that:

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."

51. The debt-equity considered for the purpose of computation of tariff for the 2019-24 period is as follows:

Asset-1

Funding	**Capital cost (as on COD) (₹ in lakh)**	**(in %)**	**Capital cost (as on 31.3.2024) (₹ in lakh)**	**(in %)**
Debt	393.32	70.00	607.31	70.00
Equity	168.56	30.00	260.28	30.00
Total	**561.88**	**100.00**	**867.59**	**100.00**

Asset-2

Funding	**Capital cost (as on COD) (₹ in lakh)**	**(in %)**	**Capital cost (as on 31.3.2024) (₹ in lakh)**	**(in %)**
Debt	435.33	70.00	687.09	70.00
Equity	186.57	30.00	294.47	30.00
Total	**621.90**	**100.00**	**981.56**	**100.00**

Depreciation

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

*“**33. Depreciation:** (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:*

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

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

(3)The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

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

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

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

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

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

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

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

(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."

53. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after considering the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as

100% depreciable. The depreciation allowed for the transmission assets for the 2019-24 tariff period is as follows:

(₹ inlakh)

Asset-1					
	Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
A	Opening Gross Block	561.88	564.17	867.59	867.59
B	Addition during the year 2019-24 due to projected ACE	2.29	303.42	0.00	0.00
C	Closing Gross Block (A+B)	564.17	867.59	867.59	867.59
D	Average Gross Block (A+C)/2	563.03	715.88	867.59	867.59
E	Average Gross Block (90% depreciable assets)	524.22	675.21	825.04	825.04
F	Average Gross Block (100% depreciable assets)	38.81	40.68	42.55	42.55
G	Depreciable value (excluding IT equipment and software) (E*90%)	471.80	607.68	742.54	742.54
H	Depreciable value of IT equipment and software	38.81	40.68	42.55	42.55
I	Total Depreciable Value (G+H)	510.61	648.36	785.09	785.09
J	Weighted average rate of Depreciation (WAROD) (in %)	5.85	5.73	5.66	5.66
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00
L	Balance useful life at the beginning of the year (Year)	24.00	24.00	23.00	22.00
M	**Depreciation during the year**(D*J)	**2.34**	**41.05**	**49.11**	**49.11**
N	Aggregate Cumulative Depreciation at the end of the year	2.34	43.39	92.50	141.62
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	508.26	604.97	692.58	643.47

(₹ in lakh)

Asset-2					
	Particulars	**2020-21 (pro-rata for23 days)**	**2021-22**	**2022-23**	**2023-24**
A	Opening Gross Block	621.90	621.90	981.56	981.56
B	Addition during the year 2019-24 due to projected ACE	0.00	359.66	0.00	0.00
C	Closing Gross Block (A+B)	621.90	981.56	981.56	981.56
D	Average Gross Block (A+C)/2	621.90	801.73	981.56	981.56
E	Average Gross Block (90% depreciable assets)	563.85	740.19	916.53	916.53
F	Average Gross Block (100% depreciable assets)	58.05	61.54	65.03	65.03
G	Depreciable value (excluding IT equipment and software) (E*90%)	507.47	666.17	824.88	824.88
H	Depreciable value of IT equipment and	58.05	61.54	65.03	65.03

Asset-2					
	Particulars	**2020-21 (pro-rata for23 days)**	**2021-22**	**2022-23**	**2023-24**
	software				
I	Total Depreciable Value (G+H)	565.51	727.71	889.91	889.91
J	Weighted average rate of Depreciation (WAROD) (in %)	6.19	5.98	5.85	5.85
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00
L	Balance useful life at the beginning of the year (Year)	23.00	23.00	22.00	21.00
M	**Depreciation during the year**(D*J)	**2.42**	**47.97**	**57.46**	**57.46**
N	Aggregate Cumulative Depreciation at the end of the year	2.42	50.39	107.86	165.32
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	563.09	677.32	782.05	724.59

Interest on Loan (IoL)

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

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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

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

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

(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."

55. The Petitioner has submitted that WAROI on loan has been calculated on the basis of the rates prevailing as on 1.4.2019 and has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period maybe adjusted.

56. We have considered the submissions of the Petitioner. As the Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period be adjusted. Accordingly, the floating rate of interest, if any, will be considered at the time of true-up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the transmission asset for the 2019-24 tariff period is as follows:

(₹in lakh)

Asset-1					
	Particular	**2020-21 (pro-rata for 26days)**	**2021-22**	**2022-23**	**2023-24**
A	Gross Normative Loan	393.32	394.92	607.31	607.31
B	Cumulative Repayments up to Previous Year	0.00	2.34	43.39	**92.50**
C	Net Loan-Opening (A-B)	393.32	392.58	563.92	514.81
D	Addition due to Additional Capitalization	1.60	212.39	0.00	0.00
E	Repayment during the year	2.34	41.05	49.11	49.11
F	Net Loan-Closing (C+D-E)	392.58	563.92	514.81	465.70
G	Average Loan (C+F)/2	392.95	478.25	539.37	490.25
H	Weighted Average Rate of Interest on Loan (in %)	6.362	6.358	6.356	6.356
I	**Interest on Loan (G*H)**	**1.78**	**30.41**	**34.28**	**31.16**

(₹ in lakh)

Asset-2					
	Particular	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
A	Gross Normative Loan	435.33	435.33	687.09	687.09
B	Cumulative Repayments up to Previous Year	0.00	2.42	50.39	107.86
C	Net Loan-Opening (A-B)	435.33	432.91	636.70	579.24
D	Addition due to Additional Capitalization	0.00	251.76	0.00	0.00
E	Repayment during the year	2.42	47.97	57.46	57.46
F	Net Loan-Closing (C+D-E)	432.91	636.70	579.24	521.77
G	Average Loan (C+F)/2	434.12	534.80	607.97	550.51
H	Weighted Average Rate of Interest on Loan (in %)	6.327	6.324	6.322	6.322
I	Interest on Loan (G*H)	1.73	33.82	38.43	34.80

Return on Equity (RoE)

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

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

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

Provided that return on equity in respect of additional capitalization after cut off date beyond the original scope, excluding additional capitalization on 7 account of emission control system, 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."

58. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate specified under the Taxation Laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019Tariff Regulations for 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued-up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Petitioner. Any under-recovery or over-recovery of grossed-up rate on RoE after truing up will be recovered or refunded to beneficiaries or the long-term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities will be recoverable/

adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

59. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which will be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-1					
	Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
A	Opening Equity	168.56	169.25	260.28	260.28
B	Addition due to Additional Capitalization	0.69	91.02	0.00	0.00
C	Closing Equity (A+B)	169.25	260.28	260.28	260.28
D	Average Equity (A+C)/2	168.91	214.76	260.28	260.28
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782
H	**Return on Equity (Pre-tax) (D*G)**	**2.26**	**40.34**	**48.89**	**48.89**

(₹ in lakh)

Asset-2					
	Particulars	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
A	Opening Equity	186.57	186.57	294.47	294.47
B	Addition due to Additional Capitalization	0.00	107.90	0.00	0.00
C	Closing Equity (A+B)	186.57	294.47	294.47	294.47
D	Average Equity (A+C)/2	186.57	240.52	294.47	294.47
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782
H	**Return on Equity (Pre-tax) (D*G)**	**2.21**	**45.17**	**55.31**	**55.31**

Operation & Maintenance Expenses (O&M Expenses)

60. The O&M Expenses claimed by the Petitioner for the various elements included in the transmission assets for the 2019-24 tariff period are as follows:

Asset-1					
Sub-station					
Sl. No.	**220 kV Sub-station bay**				
1	Kochi: 2 numbers of line bays at Cochin Sub-station				
O&M Expenses					
Particulars		**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
Sub-station					
220 kV					
Number of bays		2	2	2	2
Norms (₹ lakh/ Bay)		23.30	24.12	24.96	25.84
PLCC					
Original project cost (₹ in lakh)		51.48	51.48	51.48	51.48
Total O&M Expenses claimed (₹ in lakh)		**3.32**	**48.24**	**49.92**	**51.68**

Asset-2					
Sub-station					
Sl. No.	**400 kV Sub-station bay**				
1	Kozhikode: 2 numbers of 400 kV line bays at Kozhikode Sub-station				
O&M Expenses					
Particulars		**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
Sub-station					
400 kV					
Number of bays		2	2	2	2
Norms (₹ lakh/ Bay)		33.28	34.45	35.66	36.91
PLCC					
Original project cost (₹ in lakh)		12.38	12.38	12.38	12.38
Total O&M Expenses claimed (₹ in lakh)		**4.21**	**69.15**	**71.57**	**74.07**

61. Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide as follows:

> ***(3) Transmission system:*** *(a) The following normative operation and maintenance expenses shall be admissible for the transmission system:*

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (Rs 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 (Rs 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 (Rs. Lakh per 500 MW)	*1,666*	*1,725*	*1,785*	*1,848*	*1,913*
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	*2,252*	*2,331*	*2,413*	*2,498*	*2,586*
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	*2,468*	*2,555*	*2,645*	*2,738*	*2,834*
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	*1,696*	*1,756*	*1,817*	*1,881*	*1,947*
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	*2,563*	*2,653*	*2,746*	*2,842*	*2,942*

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

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 (2500 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 k
V Champa-KurukshetraHVDC 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
(v) 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."*

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

63. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and the same is as follows:

Asset-1				
Details	**2020-21 (Pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
2 Number of 220 kV line bays at Cochin Sub-station	2	2	2	2
Total O&M Expenses allowed (₹ in lakh)	**3.32**	**48.24**	**49.92**	**51.68**

Asset-2				
Details	**2020-21 (Pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
2 Number of 400 kV line bays at Kozhikode Sub-station	2	2	2	2
Total O&M Expenses allowed (₹ in lakh)	**4.19**	**68.90**	**71.32**	**73.82**

Interest on Working Capital

64. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations provide 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. Definitions…

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

65. 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 1.4.2020. The Petitioner has considered the rate of IWC as 11.25%.The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24 onwards. The components of the working capital and interest allowed for the transmission asset thereon are as follows:

(₹ in lakh)

Asset-1					
	Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
A	Working Capital for O&M Expenses (O&M Expenses for one month)	3.88	4.02	4.16	4.31
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	6.99	7.24	7.49	7.75
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	17.19	20.14	22.91	22.68
D	**Total of Working Capital**	28.06	31.39	34.56	34.74
E	Rate of Interest for Working Capital (in %)	11.25	10.50	10.50	10.50
F	**Interest of working capital**	**0.22**	**3.30**	**3.63**	**3.65**

(₹ in lakh)

Asset-2					
	Particulars	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
A	Working Capital for O&M Expenses (O&M Expenses for one month)	5.55	5.74	5.94	6.15
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	9.98	10.34	10.70	11.07
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	21.17	24.68	28.02	27.81
D	**Total of Working Capital**	36.70	40.75	44.66	45.03
E	Rate of Interest for Working Capital (in	11.25	10.50	10.50	10.50

	%)				
F	**Interest of working capital**	**0.26**	**4.28**	**4.69**	**4.73**

Annual Fixed Charges forthe 2019-24 Tariff Period

66. The transmission charges allowed for the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-1					
	Particulars	**2020-21 (pro-rata for 26 days)**	**2021-22**	**2022-23**	**2023-24**
A	Depreciation	2.34	41.05	49.11	49.11
B	Interest on Loan	1.78	30.41	34.28	31.16
C	Return on Equity	2.26	40.34	48.89	48.89
D	O&M Expenses	3.32	48.24	49.92	51.68
E	Interest on Working Capital	0.22	3.30	3.63	3.65
F	**Total**	**9.93**	**163.34**	**185.83**	**184.49**

(₹ in lakh)

Asset-2					
	Particulars	**2020-21 (pro-rata for 23 days)**	**2021-22**	**2022-23**	**2023-24**
A	Depreciation	2.42	47.97	57.46	57.46
B	Interest on Loan	1.73	33.82	38.43	34.80
C	Return on Equity	2.21	45.17	55.31	55.31
D	O&M Expenses	4.19	68.90	71.32	73.82
E	Interest on Working Capital	0.26	4.28	4.69	4.73
F	**Total**	**10.81**	**200.14**	**227.21**	**226.12**

Filing Fee and the Publication Expenses

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

Licence Fee and RLDC Fees and Charges

68. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24

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

Goods and Services Tax (GST)

69. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same will be borne and additionally paid by the Respondent(s) to the Petitioner and the same will be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/Statutory Authorities, the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

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

72. We have considered the above submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved

security expenses from 1.4.2019 to 31.3.2024. Therefore, the security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, 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

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

Sharing of Transmission Charges

74. The Billing, collection, and disbursement of transmission charges approved in this order shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

75. To summarise:

a) The Annual Fixed Charges allowed for the transmission assets for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Asset-1			
2020-21 (pro-rata for 26 days)	**2021-22**	**2022-23**	**2023-24**
9.92	163.34	185.83	184.49

(₹ in lakh)

Asset-2			
2020-21 (pro-rata for 23 days)	**2021-22**	**2022-23**	**2023-24**
10.81	200.14	227.21	226.12

76. Annexure-I given hereinafter form part of the order.

77. This order disposes of Petition No. 196/TT/2022 in terms of the above discussions and findings.

sd/-	sd/-	sd/-
(P. K. Singh)	**(Arun Goyal)**	**(I. S. Jha)**
Member	**Member**	**Member**

Annexure -I

2019-24

Asset-1

(₹ lakh)

Particulars	**Admitted Capital Cost as on 1.4.2019 (₹ in lakh)**	**ACE**				**Admitted Capital Cost as on 31.3.2024 (₹ in lakh)**	**Rate of Depreciation (in %)**	**Annual Depreciation as per Regulations (₹ in lakh)**			
		2020-21	**2021-22**	**2022-23**	**2023-24**			**2020-21**	**2021-22**	**2022-23**	**2023-24**
Land	0.00	0.00	0.00	0.00	0.00	**0.00**	0.00%	0.00	0.00	0.00	0.00
Building	30.02	0.00	34.63	0.00	0.00	**64.66**	3.34%	1.00	1.58	2.16	2.16
Transmission Line	0.00	0.00	0.00	0.00	0.00	**0.00**	5.28%	0.00	0.00	0.00	0.00
Sub-station	493.05	2.29	224.67	0.00	0.00	**720.01**	5.28%	26.09	32.09	38.02	38.02
PLCC	0.00	0.00	40.38	0.00	0.00	**40.38**	6.33%	0.00	1.28	2.56	2.56
Leasehold Land	0.00	0.00	0.00	0.00	0.00	**0.00**	3.34%	0.00	0.00	0.00	0.00
IT Equipment & Software	38.81	0.00	3.74	0.00	0.00	**42.55**	15.00%	5.82	6.10	6.38	6.38
Total	**561.88**	**2.29**	**303.42**	**0.00**	**0.00**	**867.59**		**32.92**	**41.05**	**49.11**	**49.11**
Weighted Average Rate of Depreciation (in %)								5.85%	5.73%	5.66%	5.66%
Average Gross Block (₹ in lakh)								**563.03**	**715.88**	**867.59**	**867.59**

2019-24 **Annexure-I**

Asset-2 **(₹ lakh)**

Particulars	**Admitted Capital Cost as on 1.4.2019 (₹ in lakh)**	**ACE**			**Admitted Capital Cost as on 31.3.2024 (₹ in lakh)**	**Rate of Depreciation (in %)**	**Annual Depreciation as per Regulations (₹ in lakh)**			
		2021-22	**2022-23**	**2023-24**			**2020-21**	**2021-22**	**2022-23**	**2023-24**
Land	0.00	0.00	0.00	0.00	**0.00**	0.00%	0.00	0.00	0.00	0.00
Building	0.00	42.04	0.00	0.00	**42.04**	3.34%	0.00	0.70	1.40	1.40
Transmission Line	0.00	0.00	0.00	0.00	**0.00**	5.28%	0.00	0.00	0.00	0.00
Sub-station	563.85	298.26	0.00	0.00	**862.11**	5.28%	29.77	37.65	45.52	45.52
PLCC	0.00	12.38	0.00	0.00	**12.38**	6.33%	0.00	0.39	0.78	0.78
Leasehold Land	0.00	0.00	0.00	0.00	**0.00**	3.34%	0.00	0.00	0.00	0.00
IT Equipment & Software	58.05	6.98	0.00	0.00	**65.03**	15.00%	8.71	9.23	9.75	9.75
Total	**621.90**	**359.66**	**0.00**	**0.00**	**981.56**		**38.48**	**47.97**	**57.46**	**57.46**
Weighted Average Rate of Depreciation (in %)							6.19%	5.98%	5.85%	5.85%
Average Gross Block (₹ in lakh)							**621.90**	**801.73**	**981.56**	**981.56**