CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 189/TT/2021

Coram:

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

Date of Order: 11.07.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for determination of transmission tariff from COD to 31.3.2024 for **Asset-1:** URTDSM Systems (PDCs & its associated parts) supplied and installed at NERLDC and SLDCs of Assam, Meghalaya and Tripura and PMUs along with 51 PMUs & its associated items (in 14 stations) and **Asset-2:** URTDSM System (Control Center Equipment, PMU's and associated equipment's) integrated and commissioned at WRLDC, Mumbai & SLDCs of Madhya Pradesh and Gujarat under "Phase-I- Unified Real Time Dynamic State Measurement (URTDSM)".

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001. **….Petitioner**

Vs

1. Assam Electricity Grid Corporation Limited,
(Formerly Assam State Electricity Board),
Bijulee Bhawan, Paltan Bazar,
Guwahati – 781001, Assam.

2. Meghalaya Energy Corporation Limited,
(Formerly Meghalaya State Electricity Board),
Short Round Road, "Lumjingshai",
Shillong – 793001, Meghalaya.

3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh.

4. Power and Electricity Department,
Government of Mizoram,
Aizawl, Mizoram.

5. Manipur State Power Distribution Corporation Limited,
(Formerly Electricity Department, Government of Manipur),
Keishampat, Imphal.

6. Department of Power,
Government of Nagaland,
Kohima, Nagaland.

7. Tripura State Electricity Corporation Limited,
Vidyut Bhawan, North Banamalipur,
Agartala, Tripura (W) – 799001, Tripura.

8. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur - 482 008.

9. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan,
Rampur Jabalpur - 482 008.

10. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,
3/54, Press Complex,
Agra-Bombay Road, Indore – 452008.

11. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai – 400 001.

12. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400 051.

13. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara – 390007.

14. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa – 403 001.

15. Electricity Department,
Administration Of Daman & Diu,
Daman – 396 210.

16. DNH Power Distribution Corporation Limited,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amli,
Silvassa – 396230.

17. Chhattisgarh State Power Transmission Company Limited,
Office Of The Executive Director (C&P),
State Load Despacth Building,
Dangania, Raipur – 492 013.

18. Chhattisgarh State Power Distribution Company Limited,
P.O.Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492 013. ….**Respondent(s)**

For Petitioner : Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : Ms. Poorva Saigal, Advocate, MPPTCL
Shri Vincent D'Souza, MPPTCL

ORDER

The Petitioner, Power Grid Corporation of India Limited (PGCIL), has filed the instant petition for determination of 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 **Asset-1:** URTDSM Systems (PDCs & its associated parts) supplied and installed at NERLDC and SLDCs of Assam, Meghalaya and Tripura and PMUsalong with 51 PMUs & its associated items (in 14 stations) and **Asset-2:** URTDSM System(Control Center Equipment, PMU's and associated equipment's) integrated and commissioned at WRLDC, Mumbai & SLDCs of Madhya Pradesh and Gujarat (hereinafter referred to as "the transmission assets") under "Phase-I- Unified Real Time Dynamic State Measurement (URTDSM)" (hereinafter referred to as "the transmission project").

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 –8.3 above.

3) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019. as per para 8 above for respective block

4) Tariff may be allowed as claimed based on 30% of the cost considered as equity after adjustment of grant.

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 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 8.3 above.

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 the initial spare as procured in the current petition in full as given in para-7.1 under Regulation 76 of the CERC (Terms and Condition of Tariff) Regulation,2019, "Power to Relax"

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

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

(a) The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors (BoD) of the Petitioner Company vide Memorandum No. C/CP/URTDSM Ph-1 dated 13.1.2014 at an estimated cost of ₹37463 lakh, which included IDC of ₹2954 lakh, based on 3rd Quarter, 2013 price level.

(b) The scope of the transmission project was discussed and agreed in Joint SCM of all five Regions held on 5.3.2012 and further in Special TCC Meeting held on 9.2.2013, 14th NERPC held on 4.9.2013 and 20th WRPC meeting held on 18.5.2012. It was decided that the Petitioner would implement the URTDSM project as approved in the Joint meeting of all five Regional Standing Committee Meeting (SCM) on Power System Planning held on 5.3.2012.

(c) After deliberation in above said SCM, members of Regional Standing Committee on Power System Planning agreed that subject scheme is to be implemented by the Petitioner as system strengthening scheme and cost shall be added in the National Pool Account and to be shared by all DICs as per PoC mechanism under the Sharing Regulations. It was also agreed that the Petitioner shall file the petition before the Commission for getting Regulatory Approval for the transmission project.

(d) Accordingly, the Petitioner filed the Petition No. 129/MP/2012 for grant of Regulatory Approval of URTDSM project. Further, the Commission vide

order dated 6.9.2013 in Petition No. 129/MP/2012 has granted Regulatory Approval for URTDSM project.

(e) The scope of work under "Phase-I- URTDSM" is as follows:

Phase-I:

A. Installation of approximately 1186 no. of PMUs at the Sub-stations and Power plants of all utilities of the Country based upon following criterion:

i. Sub-stations of 400 kV and above

ii. Generating Stations of 220 kV and above

iii. HVDC terminals

iv. Important inter-regional and inter-national connection points

B. The data flow hierarchy similar to that being followed for ULDC system is being adopted for URTDSM. Accordingly, Phasor Data Concentrators (PDCs) which shall acquire data from PMUs to be installed is as follows:

i. Super PDCs at Main and Backup NLDCs (2 Sets)

ii. Super PDCs at all the five RLDCs. (5 sets) and NTAMC

iii. Master PDCs at SLDCs (25 sets) and strategic locations.

iv. Visualisation software & Data archiving server at all PDC locations at including NTAMC and NLDC.

v. Router/Switches and miscellaneous items.

vi. Communication interfaces, cables etc.

vii. Remote Consoles at each RPC, Union Territories, CEA, CTU and otheridentified locations.

C. The hardware and software proposed to be installed at Control Centers to accommodate all the PMUs under Phase-I with provision for future expansion of about 50%.

D. The fibre optic (FO) based communication system existing and being established by Petitioner and Constituents shall meet the requirement of Phase-I.

E. Analytical Software.

(f) The commissioning status of various assets under the transmission project is as follows:

Sl. No.	Asset Name	SCOD	Actual COD	Petition No.
1	URTDSM System (Control Center Equipment, PMU's and associated equipments) integrated and commissioned at SRLDC & SLDCs of Southern Region	13.4.2016	28.9.2018	254/TT/2019
2	PHASE-I "Unified Real Time Dynamic State Measurement (URTDSM)" for NRLDC & SLDCs of Northern Region.		30.6.2018	486/TT/2019
3	URTDSM Systems (Control Center Equipment's, PMU's and associated equipment's) integrated and commissioned at ERLDC, Kolkata; SLDC, WBSETCL and SLDC, DVC		12.12.2018	678/TT/2020
4	URTDSM Systems (Control Center Equipment's, PMU's and associated equipment's) integrated and commissioned at SLDC, OPTCL.		2.1.2019	
5	**URTDSM Systems (PDCs & its associated parts) supplied and installed at NERLDC and SLDCs of Assam, Meghalaya and Tripura and PMUs along with 51 PMUs & its associated items (in 14 stations)**		1.1.2020	**Covered in the instant petition**
6	**URTDSM System(Control Center Equipment, PMU's and associated equipment's) integrated and commissioned at WRLDC, Mumbai & SLDCs of Madhya Pradesh and Gujarat**		31.5.2019	

(g) As per IA dated 13.1.2014, the transmission project was scheduled to be put into commercial operationin 27 months from the date of investment approval. Therefore, the SCOD of the transmission assets covered under the instant petition works out to 13.4.2016. However, the Asset-1 was put under commercial operation on 1.1.2020 with a time over-run of 1358 days

and the Asset-2 was put under commercial operation on 31.5.2019 with a time over-run of 1143 days.

4. The Respondents are distribution licensees, power departments and transmission licensees, who are procuring transmission services from the Petitioner.

5. The Petitioner has served the petition on the Respondents and notice of this application has also 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 by the Petitioner. Madhya Pradesh Power Transmission Company Limited (MPPTCL), Respondent No. 9, has filed its reply vide affidavit dated 8.11.2021 and has raised the issue of time over-run of the transmission assets. In response, the Petitioner has filed a rejoinder dated 10.12.2021. Madhya Pradesh Power Management Company Limited (MPPMCL) i.e. Respondent No. 8 has also filed its reply vide affidavit dated 10.11.2021 and has raised issues such as time over-run, Initial Spares, ACE and GST. In response the Petitioner has filed rejoinder dated 10.12.2021.

6. The hearing in this matter was held on 2.11.2021 through video conference and the order was reserved. However, the order could not be issued before Shri P.K. Pujari, former Chairperson, demitted office. Therefore, the matter was heard again on 23.6.2022.

7. During the hearing on 23.6.2022, the representative of the Petitioner submitted that all the information for determination of tariff has been submitted

which may be considered for determination of transmission tariff. Learned counsel for MPPTCL submitted that the submissions made on behalf of MTTPCL on the previous date of hearing i.e. on 2.11.2021 may be considered while allowing claims of the Petitioner.

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

9. This order is issued considering the submissions made by the Petitioner in the petition, affidavit dated 23.9.2021, replies of MPPTCL and MPPMCL and rejoinders thereto.

Annual Fixed Charges for the 2019-24 Tariff Period

10. The details of the transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-1					
Particulars	**2019-20 (Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Depreciation	25.61	108.91	118.10	123.55	123.55
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	32.07	136.37	147.88	154.70	154.70
Interest on working capital	0.87	3.70	4.01	4.20	4.18
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	**58.55**	**248.98**	**269.99**	**282.45**	**282.43**

(₹ in lakh)

Asset-2					
Particulars	**2019-20 (Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Depreciation	256.61	339.33	353.97	355.09	355.09
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	321.32	424.88	443.21	444.62	444.62
Interest on working capital	8.70	11.52	12.02	12.06	12.03

Asset-2					
Particulars	**2019-20 (Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
O & M Expenses	0.00	0.00	0.00	0.00	0.00
Total	**586.63**	**775.73**	**809.20**	**811.77**	**811.74**

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

(₹ in lakh)

Asset-1					
Particulars	**2019-20 (Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
O&M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	28.95	30.70	33.29	34.82	34.73
Total	**28.95**	**30.70**	**33.29**	**34.82**	**34.73**
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	**0.87**	**3.70**	**4.01**	**4.20**	**4.18**

(₹ in lakh)

Asset-2					
Particulars	**2019-20 (Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
O&M expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	86.27	95.64	99.76	100.08	99.80
Total	86.27	95.64	99.76	100.08	99.80
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	8.70	11.52	12.02	12.06	12.03

Commercial Operation Date ("COD")

12. The Petitioner has claimed the actual COD of the Asset-1 and Asset-2 as 1.1.2020 and 31.5.2019.

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.

(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 subclauses (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."

14. In support of COD of Asset-1 and Asset-2, the Petitioner has submitted self-declaration COD Certificate and RLDC Charging Certificate issued by POSOCO.

15. We have considered the submissions of the Petitioner. The COD of the transmission Asset-1 and Asset-2 is approved as 1.1.2020 and 31.5.2019.

Capital Cost

16. Regulation 19 of the 2019 Tariff Regulation provide 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 capitalisation 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 up to 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 up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

(a) The assets forming part of the project, but not in use, as declared in the tariff petition; (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project: Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be 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."

17. The capital cost claimed by the Petitioner as on COD and projected ACE for 2019-24 for the assets covered in the instant petition is as follows:

(₹ in lakh)

Asset	Approved Cost	Expenditure upto COD	Projected expenditure			Estimated Completion Cost
			2019-20	2020-21	2021-22	
Asset-1	4455.91	2240.89	96.25	157.47	250.40	2745.01
Asset-2	8990.93	6400.96	839.37	600.54	50.10	7890.97

** Total PSDF grant utilised against this petition is ₹6049.29 lakh as on COD.*

18. The estimated completion cost is within FR cost. Hence, there is no cost over-run.

Time Over-run

19. As per the Investment Approval (IA) dated 13.1.2014, the transmission assets were scheduled to be put into commercial operation within 27 months from the date of IA. Accordingly, the SCOD of the transmission assets was 13.4.2016. The Asset-1 and Asset-2 were put into commercial operation w.e.f. 1.1.2020 and 31.5.2019. Accordingly, there is time over-run of 1358 days and 1143 days in case of the Asset-1 and Asset- 2.

20. The main reasons submitted by the Petitioner for the delay in execution of the project are as follows:

a. The Wide Area Measurement System (WAMS) under Unified Real Time Dynamic State Measurement (URTDSM) Project is one of the first project in the world for real time measurement, monitoring and visualization of power system as well as taking preventive/corrective action in the regime

of grid management with improved efficiency. Under the transmission project, 225 numbers of Phasor Measurement Units (PMUs) were to be installed covering 428 transmission lines and 73 sub-stations in Southern Region.

b. At the time of Investment Approval dated 13.1.2014, PMUs of IEEE C37.118.1-2011 standard was applicable whereas the new standard of IEEE C37.118.1-2014 was awaited from IEEE. During award and implementation of the transmission project, PMUs were supposed to be complied with new IEEE C37.118.1-2014 Standard.

c. Though new standard, IEEE C 37.118-1a-2014 on PMUs was released in May 2014 but no approved test laboratory was available in India or abroad for testing of PMU features (IEEE Synchrophasor Certification Program) at that time.

d. The physical progress of URTDSM Project was affected due to non-availability of test laboratories worldwide for type testing of PMU in accordance with the Latest IEEE C37.118 Standard as per the specifications. In this regard, it may be mentioned that the manufacturing clearance for PMU was linked to successful completion of Type Testing. The said bottleneck has resulted in the rescheduling of entire the transmission project.

e. After Consumer Energy Laboratory Service, USA was approved for testing of PMUs for IEEE certification on 1.5.2015, PMUs were tested in the said Lab from 14-24.6.2015 and the type test completed on 7.7.2015 for supply, installation and commissioning of PMUs at various sub-stations in Central and State Sector Constituents.

f. Therefore, delay from IA dated 13.1.2014 to 31.5.2015 was mainly due to delay in release of IEEE C 37.118-1a-2014 Standard and non-availability of competent labs for testing of PMUs.

g. The scope of the transmission project involves hardware & software installation at State sector control centers/ Central sector control centers/ SLDCs. In this regard the Petitioner started communicating to constituents to provide space/ basic civil structure/ fronts etc. However, there was significant delay by the constituents in providing requisite infrastructure.

h. Accordingly, the work was delayed due to space constraint and non-availability of basic infrastructure/ fronts/ work permission for connection at various state utilities sub-stations and generating stations as follows:

Asset 1

1) The delay from 25.6.2014 to 27.12.2019 was interrupted by various strikes and bandhs in the area owing to prevalent issues.
2) The delay from 14.8.2014 to 10.5.2018 was interrupted and delayed by frequent landslides and heavy rains occurring in Meghalaya and Assam Region.
3) The delay from 13.5.2014 to 26.8.2019 was interrupted and delayed by flash floods in the Assam and Meghalaya Region.
4) The delay from 30.5.2016 to 30.6.2016 was hindered by the poor road condition and road blockages in Arunachal Pradesh. The poor road condition made it difficult for the transporters to hardly move which delayed the supplies.
5) The delay from 11.6.2014 to 11.5.2017 (approximately 36 months) is attributable to non-readiness of the SLDC, Arunachal Pradesh Building. During 3rd & 4th NETeST, it was requested by Forum to AP SLDC team for handling over of complete space for fast execution of SLDC Set-up the transmission project. In the 17th TCC meeting held on 04.10.2016, PowerGrid informed that DoP, AP has partially

handed over the building for which the execution is hampered. Since there was no representative from Arunachal Pradesh, the forum advised NERPC to write to DoP, AP for handling over entire space of the building earmarked for SLDC Setup.

6) Further in the 5th NETeST Meeting held on 16.11.2016, it was informed that the space earmarked for SLDC is still not vacated. It was advised to NERPC to communicate with Power Minister and Power Secretary so that the transmission project is not delayed further. The said constraints were discussed in the 6th NETeST Meeting held on 11.5.2017, wherein it was discussed that the transmission project got delayed earlier due to some issues like non-readiness of sites (Manipur, Mizoram, Nagaland, AP) and then issues of Trenches/Civil works/ foundations (Tripura) and also other issues like strike in Manipur, Nagaland, ILP issues in some States, etc.

7) The delay from 25.6.2018 to 8.6.2019 (approximately 12 months) is attributable to space constraint at SLDC, Arunachal Pradesh Building which resulted in delay in installation. Further, URTDSM project was diverted from SLDC, Arunachal Pradesh to SLDC, Tripura due to space constraint as per 19th NERPC Meeting held on 28.11.2018.

Asset 2

8) In the Unified Real Time Dynamic State Measurement (WAMS) Project, it was envisaged to install PMUs in Sub-stations owned by CSPTCL, MSETCL & ISTS Licensee (Dhule Station of M/s Sterlite) which spread across entire WR geographical area. For successful completion of the transmission project, Backbone Communication Network to be made available by Constituents is essential for communicating PMU Data to PDCs at Control Centres. Further, timely issuance of Work Permits by different Constituents, PTW by WRLDC for Outage of each Feeder for integration of CT/PT Inputs with PMUs are very much required for completion of the transmission project within timeframe.

9) The transmission project was expected to be put into commercial operation by 12.4.2016 viz. 27 months from the date of Investment

Approval, 13.1.2014. However, during execution of the transmission Project, POWEGRID /Implementing Agency faced lot of difficulties for getting permission from Constituents towards installing PMUs (Sipat Location of M/s NTPC).

10) Accordingly, Integrated SAVT was held up due to non-availability of Communication Links from Various MSETCL Sub-stations (Kalwa, Lonikhand, Chandrapur, Padghe) and Dhule (ISTS Customer Location) as follows:

A. During 32nd TCC/WRPC meeting held on 24.8.2016 it was decided to monitoring the status of URTDSM & PGCIL was asked to expedite the transmission project. Subsequently a meeting was held on 28.9.2016 at Goa. The Petitioner informed that the date of commercial operation as per original schedule of URTDSM was January 2016. As per the progress of analytics development and field erections all efforts are being made to complete by March 2017, however, according to GE T&D (formerly Alstom) estimate, it may spillover to June 2017.

B. During 35nd WRPC meeting held on 20.12.2017, the Petitioner informed that Except Maharashtra, in WR, SAT has been completed & SAVT has commenced at all control centres which is a significant milestone of project implementation. 95% work towards URTDSM in WR was completed by 31.7.2017. The delay was mainly in supply of UPS at each control center due to some type test issues.

C. By September, 2017, SAT at all Control Centres in Western Region was completed and awaiting for Integrated SAVT except Kalwa SLDC due to non – availability of Communication Links (MoM of 8th URTDSM Meeting held on 13.11.2017 at Annexure – 1). Several reminders were given to MSETCL are also enclosed. By March, 2018, SAVT was completed except Kalwa SLDC as Communication Link was not made available by MSETCL from Chandrapur Station. MSETCL permitted to start SAVT only after Chandrapur Station starts getting reported to Kalwa SLDC. Further, Constituents did not agree to provide Operational Acceptance Certificate (Trail Run Certificate

by WRLDC) due to delay in closing of minor Punch Points & installation of UPS which are not at all effecting Main/Important Functionalities of URTDSM (WAMS) Project. During installing UPS at Kalwa SLDC, substantial delay was happened due to creation of Cable Trenches by MSETCL and finally COD completed on 30.5.2019.

D. Shutdown requirement of Reliance SASAN on 765 kV Sasan-Vindhyachal Pooling, 765 kV Sasan-Satna Ckt-I & II for permitting the PMU commissioning work. Requirement of Armored cable at NTPC Vindhychal & NPCIL Kakrapar (While original contract had envisaged unarmored cable).

21. The Petitioner has requested to consider the above mentioned unforeseen events and its aftermath into cognizance and condone the time over-run.

22. MPPTCL has submitted that that Petitioner has failed to substantiate the delay and has merely sought the condonation of the time over-run by attaching various communications without establishing the co-relation and explaining the circumstances due to which the time over-run occurred. The Petitioner has not provided any details regarding the delay in achieving the commercial operation of Asset-2. The Ministry of Power, Government of India, vide letter dated 31.12.2014 conveyed to the Petitioner, the sanction of grant from PSDF towards the transmission project of Petitioner for URTDSM System in accordance with the order of the Commission dated 6.9.2013, the Commission's letter dated 4.7.2014 and approval of Monitoring Committee in its meeting dated 8.10.2014. It is submitted that the delay towards release of IEEE C 37.118-1a-2014 Standard and non-availability of competent labs for testing of PMUs is not attributable to MPPTCL. The contract for URTDSM project was awarded to Alstom T&D Limited (currently GE T&D India Limited) on 15.1.2014 by the Petitioner with

implementation to be completed within 24 months. Even after repeated pursuance with the Petitioner, the delivery of equipment under the transmission project was not commenced till lapse of about three years from award of contract. At the 32nd TCC/WRPC meeting held on 24.8.2016, the representative of GE T&D informed that installations had been made at 58 locations out of 71 locations. Again, at the 9th Project Review Meeting on URTDSM and 1st PRM for REMC Project in Western Region held at Vadodara, it was submitted that installations had been made at 60 locations out of the 71 locations. The SCOD of the transmission project was 12.4.2016. This delay in installation is clearly attributable to Petioner and its contractors/sub-contractors. MPPTCL cannot be held liable for this delay. MPPTCL submitted that it had made land available for hardware and software installation at State Control Centres/SLDCs. MPPTCL vide its letter dated 19.8.2016 communicated to Petitioner that the development PDC delivered at MP SLDC is lying idle as no manpower is deployed and no activity is planned/ communicated so far for development system delivered at SLDC. MPPTCL also informed the Petitioner about the non-completion of work on the URDTSM System and other issues holding up the progress of the work. None of the reasons of delay are attributable to MPPTCL. MPPTCL highlighted the long delay attributable to Petitioner and its contractor. In its letter MPPTCL requested the Petitioner to provide the latest status report on the transmission project, hold regular meetings to inform about the transmission project's status and requested Petitioner to expediate the transmission project work, especially in relation to the State Sector asset. MPPTCL has further submitted that the sites for installation of equipments in MPPTCL transmission assets were free from any encumbrance and there were no space constraints. The delay is entirely

attributable to delay in design, type test, delivery, commissioning and resolving site and factory acceptance test, insufficient manpower deployed by the contractors etc. The hardware installation and system commissioning of URTDSM project at SLDC, Jabalpur completed on 28.7.2017 i.e. nearly three and half years after award of contract on 15.1.2014. The delivery of UPS was made in December, 2018 and then further commissioning took six months and operational acceptance was completed only on 30.5.2019. MPPTCL vide letter dated 21.5.2019 intimated WRLDC about the pending works on the transmission project and the pendency of such works and tasks holding up the progress of the URTDSM Project. The issues related to URTDSM analytics applications were also brought to the knowledge of Petitioner by MPPTCL vide letter dated 14.6.2019. Even as on date, the analytic applications are not commissioned properly and not in use. The delay in executing the works is due to factors entirely attributable to Petitioner. A perusal of the documents attached by the Petitioner shows that there has been slackness on the part of the Petitioner in executing the transmission project and there were issues between the Petitioner and its sub-contractors. MPPTCL has contended that Regulation 12 of the 2014 Tariff Regulations deems the *'variations in capital expenditure on account of time and/or cost over-run on account of land acquisition issues'* and '*delay in execution of the project on account of contractor, supplier or agency of the generating company or transmission licensee*' as controllable factors. Therefore, Petitioner is not eligible for grant of IDC and IEDC in regard to the period of delay in the commissioning of URDTSM Project.

23. In response, the Petitioner has submitted that WAMS under URTDSM Project is first of its kind project in the world for real time measurement,

monitoring and visualization of power system as well as taking preventive/ corrective action in the regime of grid management with improved efficiency. In the scope of works to be executed, under the transmission project, PMU is first and most important building block of the transmission project. At the time of Investment Approval dated 13.1.2014, PMUs of IEEE C37.118.1-2011 Standard was applicable whereas the new standard of IEEE C37.118.1-2014 was awaited from IEEE. During award and implementation of this project, PMUs were supposed to be complied with new IEEE C37.118.1-2014 Standard. Though new standard, IEEE C 37.118-1a-2014 on PMUs was released in May 2014 but no approved test laboratory was available in India or abroad for testing of PMU features (IEEE Synchrophasor Certification Program) at that time. The physical progress of URTDSM Project was affected due to non-availability of test laboratories worldwide for type testing of PMU in accordance with the Latest IEEE C37.118 Standard as per the specifications. In this regard, it may be mentioned that the manufacturing clearance for PMU was linked to successful completion of Type Testing. The said bottleneck has resulted in the rescheduling of entire Project. After Consumer Energy Laboratory Service, USA was approved for testing of PMUs for IEEE certification on 1.5.2015, PMUs were tested in the said Lab from 14-24.6.2015 and the type test completed on 7.7.2015 for supply, installation and commissioning of PMUs at various sub-stations in Central and State Sector Constituents. Therefore, delay from IA dated 13.1.2014 to 31.5.2015 was mainly due to delay in release of IEEE C 37.118-1a-2014 Standard and non-availability of competent labs for testing of PMUs.

24. The Petitioner has further submitted that the scope of the transmission project involves hardware & software installation at State sector control centers/

Central sector control centers/ SLDCs. In this regard, the Petitioner started communicating to constituents to provide space/ basic civil structure/ fronts etc. However, there was significant delay by the constituents in providing requisite infrastructure. Accordingly, the work was delayed due to space constraints and non-availability of basic infrastructure/ fronts/ work permission for connection at various state utilities sub-stations and generating stations in WR is as follows:

a) In the URTDSM (WAMS) Project, it was envisaged to install PMUs in sub-stations owned by Petitioner, CSPTCL, MSETCL & ISTS Licensee (Dhule Station of M/s Sterlite) which spread across entire WR geographical area. For successful completion of the tansmission Project, Backbone Communication Network to be made available by Constituents is essential for communicating PMU Data to PDCs at Control Centres. Further, timely issuance of Work Permits by different Constituents, PTW by WRLDC for Outage of each Feeder for integration of CT/PT Inputs with PMUs are very much required for completion of the tansmission project within timeframe.

b) During execution of the tansmission project, the Petitioner/Implementing Agency faced lot of difficulties for getting permission from Constituents towards installing PMUs (Sipat Location of M/s NTPC).

c) Accordingly, Integrated SAVT was held up due to non-availability of Communication Links from various MSETCL Sub-stations (Kalwa, Lonikhand, Chandrapur, Padghe) and Dhule (ISTS Customer Location) as follows:

i. During 32nd TCC/WRPC meeting held on 24.8.2016, it was decided to monitor the status of URTDSM and the Petitioner was asked to expedite the transmission project. Subsequently. a meeting was held on 28.9.2016 at Goa. The Petitioner informed that the commissioning

date as per original schedule of URTDSM was January, 2016. As per the progress of analytics development and field erections all efforts are being made to complete by March, 2017, however, according to GE T&D (formerly Alstom) estimate, it may spillover to June, 2017.

ii. During 35th WRPC meeting held on 20.12.2017, PGCIL informed that Except Maharashtra, in WR, SAT has been completed & SAVT has commenced at all control centres which is a significant milestone of project implementation. 95% work towards URTDSM in WR was completed by 31.7.2017. The delay was mainly in supply of UPS at each control center due to some type test issues.

iii. By September, 2017, SAT at all Control Centres in Western Region was completed and waiting for Integrated SAVT except Kalwa SLDC due to non – availability of Communication Links. By March, 2018, SAVT was completed except Kalwa SLDC as Communication Link was not made available by MSETCL from Chandrapur Station. MSETCL permitted to start SAVT only after Chandrapur Station starts getting reported to Kalwa SLDC. Further, constituents did not agree to provide Operational Acceptance Certificate (Trial Run Certificate by WRLDC) due to delay in closing of minor Punch Points & installation of UPS which are not at all effecting Main/Important Functionalities of URTDSM (WAMS) Project. During installing UPS at Kalwa SLDC, substantial delay was happened due to creation of Cable Trenches by MSETCL and finally COD completed on 30.5.2019.

iv. Shutdown requirement of Reliance SASAN on 765 kV Sasan-Vindhyachal Pooling, 765 kV Sasan-Satna Ckt-I & II for permitting the PMU commissioning work. Requirement of armored cable at NTPC Vindhychal & NPCIL Kakrapar (while original contract had envisaged unarmored cable).

25. MPPMCL has submitted that the Petitioner has claimed that the delay is due to various factors like change in new standards, non-availability of basic infrastructure, work permissions, strikes and bands etc. The Petitioner has claimed time over-run on account of implementation of new standards of IEEE C-37.118.1-2014. The Petitioner was well aware at the time of framing of scheme that new standards of IEEEE is awaited from IEEE and considering all these factors Investment Approval was accorded on dated 13.1.2014. The Petitioner was also aware the issues like availability of type testing of PMU as per the new standards of IEEE. The Petitioner considering all above aspects decided the time frame of 27 months to complete the tansmission project. Further, the issues like space/ basic civil structure/ fronts etc. definitely would have been covered during initial survey during the transmission project preparation and due care would have been taken while framing the tansmission project report and considering all above aspects time frame of the tansmission project completion has been decided. Considering above, the plea of the Petitioner seeking condonation of time over-run on above grounds is baseless and liable for rejection.

26. MPPMCL also submitted that in case of Asset-1, the Petitioner has claimed condonation of time over-run on various grounds like strikes, *bandhs*, frequent landslides, heavy rains, floods, poor road conditions, road blockages etc. in between the periods 2014-2019. The documents submitted by the Petitioner in support of the delay for the reasons mentioned in above para, it has been observed that most of the strikes*, bandhs*, landslides, heavy rains etc. was limited for a period of 2-3 days at most of the occasions. Seeking condonation of delay for above 3 to 4 years on above grounds is purely baseless. The Petitioner could not submit sufficient documentary evidence in support of its claim, therefore, the

delay is solely attributable on the part of the Petitioner. Further, in case of Asset-2, the Petitioner has requested to condone time over-run on ground of not getting work permits from different constituents of WRLDC, which resulted the delay in execution of Project by around 37 months. The Petitioner has not submitted any details as to the efforts taken by it to obtain the work permits from date of approval i.e 13.1.2014 to 12.4.2016 (schedule date of completion of tansmission project). The delay in obtaining work permits is basically due to lack of co-ordination from the Petitioner's side.

27. In response, the Petitioner has reiterated its submissions made in the petition and those made in rejoinder to the reply of MPPTCL and, hence, the same are not being reproduced herein.

28. We have considered the submissions made by the Petitioner, MPPTCL and MPPMCL. As per the IA, the SCOD of the transmission assets under the transmission project was 13.4.2016 against which the Asset-1 and Asset-2 were put into commercial operation on 1.1.2020 and 31.5.2019 with a delay of 1358 days and 1143 days, respectively. The main reasons for the delay in commissioning of the Asset-1 and Asset-2 is delay is release of IEEE C 37.118-1a-2014 Standard & non-availability of competent labs for testing of PMUs and space constraint and non-availability of basic infrastructure/ fronts/ work permission for connection at various state utilities sub-stations and generating stations in WR and NER.

29. We are of the view that the time over-run from 13.1.2014 to 31.5.2015 is due to delay in release of IEEE C 37.118-1a-2014 Standard and non-availability of

competent labs for testing of PMUs and is beyond the control of the Petitioner. Therefore, the time over-run of 504 days is condoned for Asset-1 and Asset-2.

30. The Petitioner further submitted that the Asset-1 and Asset-2 further delayed due to non availability of control center's of WRLDC and SLDCs of WR,ERLDC and SLDC of ER. It is observed that the Petitioner has not submitted valid documentary evidence in support of these activities. As such, the time over-run from 1.6.2015 to 31.12.2020 in case of Asset-1 and 1.6.215 to 31.5.2019 in case of Asset-2 is not condoned.

31. Accordingly, out of total time over-run of 1358 days and 1143 days in respect of Assets-1 and Asset-2, time over-run of 854 days and 639 days respectively is not condoned. However, the Petitioner is granted liberty to approach the Commission along with relevant supporting documents at the time of true-up with regard to the non-condonation of the time over-run.

Power System Development Fund Grant (PSDF)

32. Ministry of Power vide letter dated 31.12.2014, had communicated the sanction of grant from PSDF towards the scheme of PGCIL for "Unified Real Time Dynamic State Measurement". The sanction was issued subsequent to the Commission's order dated 6.9.2013 in Petition No. 129/MP/2013 and Commission's letter dated 4.7.2014 and approval of Monitoring Committee in its meeting dated 8.10.2014 and sanction was equivalent to an amount of ₹26224 lakh (70% of the project cost) and shall be governed as per the approved guidelines/ procedures for funding from PSDF.

33. The Petitioner has not claimed IDC.

Incidental Expenditure During Construction (IEDC)

34. The Petitioner has claimed an IEDC of ₹358.58 lakh and ₹204.84 lakh for Asset-1 and Asset-2 and has submitted an Auditor's Certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the transmission assets. The time over-run of 854 days and 639 in resepect of Asset-1 and Asset-2 respectively is not condoned and, therefore, the IEDC allowed is as follows:

(₹ in lakh)

Assets	IEDC Claimed	Less: IEDC disallowed due to time over-run	IEDC allowed
Asset – 1	358.58	140.54	218.04
Asset – 2	204.84	66.65	138.19

Initial Spares

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

"Initial spares shall be capitalized as a percentage of the plant and machinery cost up to the cutoff date, subject to the following ceiling norms:

(d) Transmission System

(i) Transmission line: 1.00%
(ii) Transmission sub-station (Green Field): 4.00%
(iii) Transmission sub-station (Brown Field): 6.00%
(iv) Series Compensation devices and HVDC Station - 4.00%
(v) GIS Sub-station: 5.00%
(vi) Communication System: 3.50%
……..."

36. The Petitioner has claimed the following Initial Spares in respect of the transmission assets:

Assets	Total plant and machinery cost under Sub-station excluding IDC and IEDC, Land & civil works (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling limit (in %)	Initial Spares worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)
	a	b	c	d=(a-b)*c/(100-c)%	e=b-d

Asset-1	2386.43	165.97	3.5	80.53	85.44
Asset-2	7686.13	406.36	3.5	264.03	142.33

37. The Petitioner has submitted that the it has pocured Initial Spares for smooth and reliable operation of the transmission assets. Further, the Petitioner has mention that the PMUs/PDCs are used for the first time at such a large scale in Indian Power System for reliable and secured grid operation which is of national interest. The Petitioner has prayed to allow the Initial Spares in full under Regulation 76 of the 2019 Tariff Regulations.

38. MPPMCL has submitted that the cost of Initial Spares as claimed by the Petitioner comes out to 6.95 % for Asset-1 and 5.28% for Asset-2. It is much higher than cost allowed (i.e. 3.5 %) under 2019 Tariff Regulations. Hence, the same may be restricted to the norms in the 2019 Tariff Regulations. limit as mentioned in Regulation, after computation by applying prudence check, of admissible completion cost.

39. In response, the Petitioner has submitted that the URTDSM Project implemented by the Petitioner is first of its kind in the World with more than 1400 numbers of Phasor Measurement Units (PMUs). The transmission project was conceptualized to support Grid Operation with intelligent measurements, monitoring, visualization and analysis with aim to improve reliability and efficiency of available resources. It involved application of Wide Area Measurement technology at ISTS and STU level in a unified manner. The URTDSM Project enabled synchronous measurement of real time grid parameters with very fast data transfer to control centers which is very effective in reliable, secure and economical grid operation. The scope of URTDSM Project included establishment of Phasor Measurement Units (PMU), Phasor Data Concentrators (PDC)

including associated systems and development of analytical software using PMU measurements. As the URTDSM Project involved technologically intensive systems and taken up simultaneously in all the regions with locations geographically wide spread, implementation was a real challenge. In order to ensure smooth implementation, availability of adequate spares during construction stage was considered essential to meet any contingency.

40. We have considered the submissions of the Petitioner and MPPMCL. The Petitioner has claimed excess Initial Spares under Regulation 76 ("Power to Relax") of 2019 Tariff Regulations. We are not inclined to allow excess Initial Spares by relaxing the provisions of the Tariff Regulations as prayed by the Petitioner.

41. The initial spares claimed by the Petitioner are restricted to norm of 3.5% provided under Regulation 23(d) of the 2019 Tariff Regulations. The initial spares allowed are as follows:

Assets	plant and machinery cost under Sub-station excluding IDC and IEDC, Land & civil works (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling limit (in %)	Initial Spares worked out (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
	a	b	c	d=(a-b)*c/(100-c)%	e= (b-d)	f
Asset – 1	2386.95	165.97	3.5	80.55	85.42	80.55
Asset – 2	7686.13	406.36	3.5	264.03	142.33	264.03

Capital Cost allowed as on COD

42. Accordingly, the capital cost allowed as on COD is summarised as follows:

(₹ in lakh)

Assets	Capital Cost as on COD as per Auditor's Certificate	Less: IEDC and Excess Initial Spares disallowed as on COD due to		Less: PSDF Grant Received	Capital Cost as on COD *(on cash basis)*
		IEDC Disallowed due to time over-run	Excess Initial Spares		
Asset – 1	2240.89	140.54	85.42	1568.62	446.32
Asset – 2	6400.96	66.65	142.33	4480.67	1711.32

Additional Capital Expenditure (ACE)

43. 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 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 capitalisation shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalisation.
(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."

44. The Petitioner has claimed the proposed ACE on account of Balance/Retention Payments for the tansmission assets covered in the instant petition under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The proposed ACE claimed are as follows:

(₹ in lakh)

Asset	ACE		
	2019-20	**2020-21**	**2021-22**
Asset – 1	96.25	166.28	242.11
Asset – 2	839.37	600.54	50.10

45. MPPMCL has submitted that the Petitioner has submitted Form-7 with the petition. The Petitioner has claimed ACE under Regulation 24(1) of the 2019 Tariff Regulations without providing proper details and justification and hence the same may be allowed as per actuals at the time of truing up.

46. In response, the Petitioner submitted that the ACE claimed is as per the norms and, hence, may be allowed.

47. We have considered the submissions made by the Petitioner and MPPMCL. The ACE claimed towards Balance/Retention Payments for the assets covered in the instant petition is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The ACE allowed for the 2019-24 period is as follows:

(₹ in lakh)

Asset-1			
Particulars	**2019-20**	**2020-21**	**2021-22**
ACE Claimed	96.25	166.28	242.11
Less: PSDF grant received	67.38	116.40	169.48
ACE allowed	**28.88**	**49.88**	**72.63**

(₹ in lakh)

Asset-2			
Particulars	**2019-20**	**2020-21**	**2021-22**
ACE Claimed	839.37	600.54	50.10
Less: PSDF grant received	587.56	420.38	35.07
ACE allowed	**251.81**	**180.16**	**15.03**

Debt-Equity Ratio

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

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

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

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

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilisation 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."

49. The Petitioner has submitted that as per terms and condition mentioned in clause 3(vi) of sanction letter issued by Ministry of Power (GOI), expenditure beyond 70% of the cost shall be provided by Petitioner from its own resources. Accordingly, remaining 30% is being claimed as equity.

50. We have considered the submission of the Petitioner. The capital cost claimed by the Petitioner is considered as equity in the instant order.

Depreciation

51. The Petitioner vide affidavit dated 23.9.2021 referring to Clause 12.3 of Statement of Reasons (SOR) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, (hereinafter referred to as the "2015 Amendment Regulations") dated 24.11.2015 has submitted that communication equipment such as URTDSM is to be considered as IT equipment and accordingly claimed depreciation at the rate of 15%.

52. We have considered the submissions of the Petitioner. URTDSM is an upgradation of SCADA system which has been defined as a "communication

system" under Regulation 3(11) of the 2014 Tariff Regulations. The 2019 Tariff Regulations also refers the same definition for communication system.

53. In addition to that, the reference to SCADA in Clause 12.3 of SOR of the 2015 Amendment Regulations is w.r.t. salvage value and it states that the salvage value applicable to the IT equipment will be applicable to the communication equipment like URTDSM, SCADA, WAMS, RTUs etc. Therefore, reliance by the Petitioner on Clause 12.3 of SOR of the 2015 Amendment Regulations is misplaced. Moreover, the definition of "communication system" in the 2014 Tariff Regulations would prevail over the Clause 12.3 of SOR of the 2015 Amendment Regulations. Accordingly, depreciation has been considered for communication equipment such as URTDSM @6.33% as part of PLCC up to 31.3.2024 while computing the capital expenditure for the 2019-24 period.

54. 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 forfifteen 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."

55. We have considered the submission of the Petitioner. Depreciation has been allowed out as per the methodology provided in Regulation 33 of the 2019 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on COD and approved ACE during the 2019- 24 tariff period. The Gross Block during the 2019-24 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after taking into account the depreciation rates of asset as prescribed in the 2019 Tariff Regulations and depreciation allowed during the 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-1						
	Particulars	**2019-20 Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Gross Block	446.32	475.19	525.08	597.71	597.71
B	Additional Capitalisation	28.88	49.88	72.63	0.00	0.00
C	Closing Gross Block (A+B)	475.19	525.08	597.71	597.71	597.71
D	Average Gross Block (A+C)/2	460.76	500.13	561.39	597.71	597.71
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Elapsed useful life of the Asset-at the beginning of the year	0.00	0.00	1.00	2.00	3.00
G	Balance useful life of the	15.00	15.00	14.00	13.00	12.00

	Asset-at the beginning of the year					
H	Aggregated Depreciable Value (D*90%)	414.68	450.12	505.25	537.94	537.94
I	**Depreciation during the year**	**7.25**	**31.66**	**35.54**	**37.84**	**37.84**
J	Remaining Aggregated Depreciable Value	407.43	411.21	430.81	425.66	387.82

(₹ in lakh)

Asset-2						
	Particulars	**2019-20 Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Gross Block	1711.32	1963.13	2143.29	2158.32	2158.32
B	Additional Capitalisation	251.81	180.16	15.03	0.00	0.00
C	Closing Gross Block (A+B)	1963.13	2143.29	2158.32	2158.32	2158.32
D	Average Gross Block (A+C)/2	1837.22	2053.21	2150.81	2158.32	2158.32
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Elapsed useful life of the Asset-at the beginning of the year	0.00	0.00	1.00	2.00	3.00
G	Balance useful life of the Asset-at the beginning of the year	15.00	15.00	14.00	13.00	12.00
H	Aggregated Depreciable Value (D*90%)	1653.50	1847.89	1935.72	1942.49	1942.49
I	**Depreciation during the year**	**97.23**	**129.97**	**136.15**	**136.62**	**136.62**
J	Remaining Aggregated Depreciable Value	1556.27	1620.69	1572.38	1442.52	1305.90

Interest on Loan (IoL)

56. The Petitioner has not claimed any IoL. Accordingly, IoL is not allowed.

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-ofriver 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 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 MAT rate is applicable to it. Accordingly, MAT rate applicable in 2019-20 has been considered for the purpose of RoE which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE approved for the transmission assets is as follows:

(₹ in lakh)

	Asset-1					
	Particulars	**2019-20 Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Equity	446.32	475.19	525.08	597.71	597.71
B	Addition due toAdditional Capitalization	28.88	49.88	72.63	0.00	0.00
C	Closing Equity (A+B)	475.19	525.08	597.71	597.71	597.71
D	Average Equity (A+C)/2	460.76	500.13	561.39	597.71	597.71
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	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)**	**21.52**	**93.94**	**105.44**	**112.26**	**112.26**

(₹ in lakh)

	Asset-2					
	Particulars	**2019-20 Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Opening Equity	1711.32	1963.13	2143.29	2158.32	2158.32
B	Addition due toAdditional Capitalization	251.81	180.16	15.03	0.00	0.00
C	Closing Equity (A+B)	1963.13	2143.29	2158.32	2158.32	2158.32
D	Average Equity (A+C)/2	1837.22	2053.21	2150.81	2158.32	2158.32
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	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)**	**288.50**	**385.63**	**403.96**	**405.38**	**405.38**

Operation & Maintenance Expenses (O&M Expenses)

59. The Petitioner has not claimed any O&M Expenses for 2019-24 period. Accordingly, O&M Expenses are not allowed.

Interest on Working Capital (IWC)

60. 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;"

61. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) considered is 12.05% (SBI 1- year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, rate of interest for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), rate of interest for 2021-22has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) and rate of interest for 2022-23 onwards has been considered as 10.60% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.10% plus 350 basis points). The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)

Asset-1						
	Particulars	**2019-20 Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Working Capital for O & M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance	0.00	0.00	0.00	0.00	0.00

	Spares (15% of O&M Expenses)					
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	3.59	15.70	17.61	18.75	18.70
D	**Total of Working Capital (A+B+C)**	3.59	15.70	17.61	18.75	18.70
E	Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.60	10.60
F	**Interest of working Capital (D*E)**	0.43	1.77	1.85	1.99	1.98

(₹ in lakh)

Asset-2						
	Particulars	**2019-20 Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
A	Working Capital for O & M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	48.14	64.46	67.46	67.71	67.52
D	**Total of Working Capital (A+B+C)**	48.14	64.46	67.46	67.71	67.52
E	Rate of Interest on working capital (in %)	12.05	11.25	10.50	10.60	10.60
F	**Interest of working Capital (D*E)**	5.80	7.25	7.08	7.18	7.16

Approved Annual Fixed Charges for the 2019-24 Tariff Period

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

(₹ in lakh)

Asset-1					
Particulars	**2019-20 (Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Depreciation	7.25	31.66	35.54	37.84	37.84
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	21.52	93.94	105.44	112.26	112.26
Op. and Maintenance Expenses	0.00	0.00	0.00	0.00	0.00
Int. on Working Capital	0.43	1.77	1.85	1.99	1.98
Total	**29.20**	**127.36**	**142.83**	**152.08**	**152.08**

(₹ in lakh)

Asset-2					
Particulars	**2019-20 (Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Depreciation	97.23	129.97	136.15	136.62	136.62
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	288.50	385.63	403.96	405.38	405.38
Op. and Maintenance Expenses	0.00	0.00	0.00	0.00	0.00
Int. on Working Capital	5.80	7.25	7.08	7.18	7.16
Total	**391.53**	**522.85**	**547.19**	**549.17**	**549.15**

Filing Fee and Publication Expenses

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

64. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

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

Goods and Services Tax

66. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future.

67. MPPMCL has submitted that as GST is not applicable on electricity sector, hence claim regarding the same may be disallowed. In response, the Petitioner has reiterated its submissions.

68. We have considered the submission of the Petitioner and MPPMCL and are of the opinion that GST is not levied on transmission service at present. Therefore, we are of the view that Petitioner's prayer is premature.

Security Expenses

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

70. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses 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, 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

71. 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 at the time of true up.

Sharing of Transmission Charges

72. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. The Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2010 Sharing Regulations and 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

73. To summarise,

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

(₹ in lakh)

Asset-1					
Particulars	**2019-20 (Pro-rata for 91 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
AFC	29.20	127.36	142.83	152.08	152.08

(₹ in lakh)

Asset-2					
Particulars	**2019-20 (Pro-rata for 306 days)**	**2020-21**	**2021-22**	**2022-23**	**2023-24**
AFC	391.53	522.85	547.19	549.17	549.15

74. Annexre-I given hereinafter forms part of the order.

75. This order disposes of Petition No. 189/TT/2021 in terms of the above discussion and findings.

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

Asset – 1 **Annexure – I**

2019-24	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on COD		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
PLCC	446.32	151.39	597.71	6.33	29.17	31.66	35.54	37.84	37.84
TOTAL	**446.32**	**151.39**	**597.71**		**29.17**	**31.66**	**35.54**	**37.84**	**37.84**
			Average Gross Block (₹ in lakh)		460.76	500.13	561.39	597.71	597.71
			Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33

Asset - 2

2019-24	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on COD		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
PLCC	1711.32	447.00	2158.32	6.33	116.30	129.97	136.15	136.62	136.62
TOTAL	**1711.32**	**447.00**	**2158.32**		**116.30**	**129.97**	**136.15**	**136.62**	**136.62**
			Average Gross Block (₹ in lakh)		**1837.22**	**2053.21**	**2150.81**	**2158.32**	**2158.32**
			Weighted Average Rate of Depreciation (in %)		6.33	6.33	6.33	6.33	6.33