

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 184/TT/2022

Coram:

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

Date of Order: 15.09.2023

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 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for transmission assets under “North Eastern Region Strengthening Scheme-VIII”.

And in the matter of:

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

.... 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.

...Respondent(s)

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 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets under “North Eastern Region Strengthening Scheme-VIII” (hereinafter referred to as “the transmission project”):

Asset-1: Jiribam (Powergrid) GIS Sub-station- Upgradation of 132 kV level from AIS to GIS with Double Bus Arrangement, LBB & Bus Bar Protection and associated works.

Haflong (Powergrid) GIS Sub-station- Upgradation of 132 kV level from AIS to GIS with Double Bus Arrangement, LBB & Bus Bar Protection and associated works.

Asset-2: Kumarghat (Powergrid) GIS Sub-station- Upgradation of 132 kV level from AIS to GIS with Double Bus Arrangement, LBB & Bus Bar Protection and associated works.

Asset-3: Aizawl (Powergrid) GIS Sub-station- Upgradation of 132 kV level from AIS to GIS with Double Bus Arrangement, LBB & Bus Bar Protection and associated works.

Asset-4: Dimapur (Powergrid) GIS Sub-station- Replacement of existing 220/132 kV, 4x33.33 MVA single phase ICT unit by 220/132 kV, 1x160



MVA 3-phase unit, b) Addition of new 220/132 kV, 1x160 MVA three phase ICT along with associated bays, c) Conversion of 132 kV Bus Bar Scheme from Single Main and Transfer to Double Main GIS, d) Conversion of 220 kV switchyard from AIS to GIS and associated works.

Asset-5: Mokokchung (Powergrid) GIS Sub-station- 220/132 kV, 30 MVA (3x10 MVA Single Phase Units) ICT (3rd) along with associated bays (hereinafter referred to as the “transmission assets”).

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

“1) Approve the Anticipated DOCO under clause 5(1) of Tariff Regulation, 2019.

2) Condone the delay in completion of subject assets on merit of the same being out of the control of Petitioner in line with CERC Regulations’2019 22(2) (c) “uncontrollable factors” and approve the tariff as claimed.

3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / projected to be incurred.

4) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.30 above.

5) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 as per para 8.30 above for respective block.

6) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.

7) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

8) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.

9) Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 8.8 above.

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

11) Allow the initial spares as claimed in the instant petition.



12) Allow the O&M for the balance bays claimed as AIS bays in other projects at the time of Truing up.

13) 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.

14) 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) of the transmission project was accorded by Board of Directors of the Petitioner in its 358th meeting held on 20.9.2018, communicated vide Memorandum No.: C/CP/PA1617-10-0Q-IA011 dated 12.10.2018, at an estimated cost of ₹22136 lakh including an IDC of ₹1345 lakh, at March, 2018 price level.

(b) The scope of the transmission project was discussed and agreed in the 6th Standing Committee Meeting on Power System Planning of North Eastern Region held on 3.10.2016. The same was also approved in the 17th TCC/NERPC meeting held on 3.10.2016 at Imphal and at the 37th Empowered Committee on transmission held on 20.9.2017.

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

Sub-stations Extension/ Upgradation:

(i) Mokokchung (Powergrid) GIS Sub-station

- 220/132 kV, 30 MVA (3x10 MVA Single Phase Units) ICT (3rd) along with associated bays

(ii) Dimapur (Powergrid) GIS Sub-station

- Replacement of existing 220/132 kV, 4x33.33 MVA single phase ICT unit by 220/132 kV, 1x160 MVA 3-phase unit



- Addition of new 220/132 kV, 1x160 MVA three phase ICT along with associated bays
- Conversion of 132 kV Bus Bar Scheme from Single Main and Transfer to Double Main GIS and also creation of space for future provision
- Conversion of 220 kV switchyard from AIS to GIS to accommodate additional transformer and also creation of space for future provision
- Provision of tertiary loading for auxiliary supply from 160 MVA ICTs

(iii) Jiribam (Powergrid) GIS Sub-station

- Upgradation of 132 kV level from AIS to GIS along with incorporation of Double Bus Arrangement, LBB & Bus Bar Protection and associated works

(iv) Aizawl (Powergrid) GIS Sub-station

- Upgradation of 132 kV level from AIS to GIS along with incorporation of Double Bus Arrangement, LBB & Bus Bar Protection and associated works

(v) Kumarghat (Powergrid) GIS Sub-station

- Upgradation of 132 kV level from AIS to GIS along with incorporation of Double Bus Arrangement, LBB & Bus Bar Protection and associated works

(vi) Haflong (Powergrid) GIS Sub-station

- Upgradation of 132 kV level from AIS to GIS along with incorporation of Double Bus Arrangement, LBB & Bus Bar Protection and associated works

(d) The complete scope of the work as per IA is covered in the instant petition.

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been



received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondent(s) have filed any reply.

6. The hearing in this matter was held on 9.1.2023 through video conference and order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition and Petitioner's affidavit dated 24.8.2022.

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

Determination of Annual Fixed Charges from COD to 31.3.2024 of the 2019- 24 Tariff Period

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

(₹ in lakh)

Asset-1			
Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
Depreciation	94.07	187.01	215.63
Interest on Loan	76.01	143.03	154.42
Return on Equity	96.34	192.18	222.59
Interest on working capital	3.49	6.85	7.75
O&M Expenses	0.00	0.00	0.00
Total	269.91	529.07	600.39

(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
Depreciation	37.36	110.46	117.31
Interest on Loan	28.37	80.38	79.52
Return on Equity	39.02	116.20	124.20
Interest on working capital	1.37	4.03	4.20
O&M Expenses	0.00	0.00	0.00
Total	106.12	311.07	325.23



(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
Depreciation	17.35	111.60	121.10
Interest on Loan	13.42	82.48	82.95
Return on Equity	18.30	117.48	127.48
Interest on working capital	0.64	4.09	4.34
O&M Expenses	0.00	0.00	0.00
Total	49.71	315.65	335.87

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
Depreciation	36.37	351.83	390.08
Interest on Loan	29.04	269.45	277.88
Return on Equity	39.21	379.40	420.60
Interest on working capital	1.74	16.40	17.63
O&M Expenses	9.60	86.31	89.42
Total	115.96	1103.39	1195.61

(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
Depreciation	6.40	108.92	117.59
Interest on Loan	4.98	81.63	82.09
Return on Equity	6.75	115.33	125.07
Interest on working capital	0.36	5.95	6.25
O&M Expenses	3.11	50.95	52.76
Total	21.60	362.78	383.76

10. 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	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	54.96	65.23	73.82
Total	54.96	65.23	73.82
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	3.49	6.85	7.75



(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	31.21	38.35	39.99
Total	31.21	38.35	39.99
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.37	4.03	4.20

(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	29.83	38.92	41.30
Total	29.83	38.92	41.30
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	0.64	4.09	4.34

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
O&M Expenses	6.95	7.19	7.45
Maintenance Spares	12.51	12.95	13.41
Receivables	124.24	136.03	147.00
Total	143.70	156.17	167.86
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	1.74	16.40	17.63

(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
O&M Expenses	4.10	4.25	4.40
Maintenance Spares	7.39	7.64	7.91
Receivables	42.24	44.73	47.18
Total	53.73	56.62	59.49
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	0.36	5.95	6.25

Date of Commercial Operation (“COD”)

11. The Petitioner has claimed actual COD of the transmission assets as follows:



Assets	COD
Asset-1	23.8.2021
Asset-2	30.10.2021
Asset-3	16.1.2022
Asset-4	18.2.2022
Asset-5	9.3.2022

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 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 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 the transmission assets, the Petitioner has submitted the following documents:

Asset	COD	CEA Approval of energisation Certificate date	Date of completion of trial operation	RLDC trial operation certificate date	Self-declaration of COD
Asset-1	23.8.2021	30.3.2022	22.8.2021	17.9.2021 & 19.8.2021	22.9.2021
Asset-2	30.10.2021	3.1.2022	29.10.2021	5.11.2021	17.11.2021
Asset-3	16.1.2022	27.12.2021	15.1.2022	1.2.2022	14.2.2022
Asset-4	18.2.2022	14.2.2022	17.2.2022	14.3.2022	15.3.2022
Asset-5	9.3.2022	3.3.2022	8.3.2022	24.3.2022	25.3.2022

14. The Petitioner has also submitted the CMD certificate for declaration of COD of all the transmission assets.

15. Taking into consideration CEA approval of energisation certificate, RLDC trial operation certificate, CMD certificate and self-declaration of COD as required under the Grid Code, COD of the transmission assets is approved as follows:

Assets	COD
Asset-1	23.8.2021
Asset-2	30.10.2021
Asset-3	16.1.2022
Asset-4	18.2.2022
Asset-5	9.3.2022



Capital Cost

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

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

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

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

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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly tried up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*



- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”

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

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

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

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

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

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

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

17. The Petitioner has submitted the Auditor's Certificate and has claimed the following capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred, in respect of the transmission assets:



(₹ in lakh)

Assets	FR apportioned approved cost	Capital cost upto COD	Projected ACE			Capital cost as on 31.3.2024
			2021-22	2022-23	2023-24	
Asset-1	5224.73	2790.91	137.06	998.74	47.46	3974.17
Asset-2	2802.06	1286.03	734.13	84.12	199.93	2304.21
Asset-3	2682.39	1261.28	646.14	355.00	0.00	2262.42
Asset-4	8816.76	6020.60	54.60	1316.23	146.25	7537.68
Asset-5	2609.87	1901.58	0.00	290.67	54.98	2247.23

18. As compared with FR cost, the estimated completion cost has been reduced by ₹1250.6 lakh, ₹497.85 lakh, ₹419.97 lakh, ₹127.08 lakh, ₹362.64 lakh for Asset-1, Asset-2, Asset-3, Asset-4 and Asset-5 respectively. The estimated completion cost of all the transmission assets is within the FR apportioned approved cost. Therefore, there is no cost over-run.

Time Over-run

19. As per IA dated 20.9.2018, the transmission assets were scheduled to be put into commercial operation within 30 months from the date of IA. Accordingly, the SCOD is 20.3.2021, against which the actual COD of transmission assets and time over-run in respect of the transmission assets are as follows:

Assets	SCOD	COD	Time Over-run
Asset-1	20.3.2021	23.8.2021	156 days
Asset-2		30.10.2021	224 days
Asset-3		16.1.2022	302 days
Asset-4		18.2.2022	335 days
Asset-5		9.3.2022	354 days

20. The Petitioner has submitted that the Ministry of Power (MoP) in its letter dated 27.7.2020 allowed the extension of SCOD by 5 months in case of all the inter-State transmission projects, which were under construction as on 25.3.2020, to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID-19 pandemic. Accordingly, MoP's letter dated 27.7.2020 is applicable in the instant case for granting extension to TSP/ transmission licensees for completion of



the under construction inter-State transmission projects by additional 5 months. Further, MoP in the letter dated 12.6.2021 allowed an extension in SCOD by 3 months to all inter-State projects with SCOD after 1.4.2021. As per the extension granted by MoP due to COVID-19 pandemic, the revised SCOD of the transmission project is 20.11.2021. The details of time over-run in respect of transmission assets as per the revised SCOD are as follows:

Assets	SCOD	COD	Time Over-run as per IA	Time Over-run (Considering MoP letters)
Asset-1	20.11.2021 (As per MoP letter dated 27.7.2020 and 12.6.2021)	23.8.2021	156 days	No delay
Asset-2		30.10.2021	224 days	No delay
Asset-3		16.1.2022	302 days	57 days
Asset-4		18.2.2022	335 days	90 days
Asset-5		9.3.2022	354 days	109 days

21. The Petitioner has submitted general as well as asset-wise reasons such as delay due to COVID-19 pandemic, non-approval of shut-down, hindrance on account of road blockade and bandhs due to Mizoram Assam Border clash, hindrance on account of Citizenship Amendment Bill (CAB) agitation and extended rainfall and flood and submitted documentary evidences in support of the same. The Petitioner vide affidavit dated 24.8.2022 has submitted the following reasons for time over-run:

Delay due to Worldwide COVID-19 Pandemic

Due to COVID-19 Pandemic, the Government of India imposed lockdown throughout the country for around 3-4 months which restricted the movement from one place to another. The movement and restrictions affected the suppliers' chain, transportation shortage, and workers absenteeism due to illness/quarantine/migration labour shortages which resulted in decrease in output and delayed all countrywide ongoing projects. The lock-down imposition was unavoidable and complicated things further. 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.

Asset-1, Asset-2, Asset-3, Asset-4 and Asset-5:

a. Hindrance to work on account of road blockade & bandhs in the aftermath of anti-CAB agitation

After the Citizenship (Amendment) Bill (CAB), 2019 was cleared, violent protests erupted in Assam from 4.12. 2019 and continued almost till March, 2020 which led to curfews in various parts of Assam and were extended to an indefinite period. Almost all roads and rail transportation were blocked by the activities. As a result of the agitations and road blockade at a number of places, transportation of various construction materials to work site was severely affected for week's together even as works remained suspended because of desertion of work site by labourers. December, 2019 was completely affected due to the raging protests.

b. Extended rainfall and flood

The monsoon in 2019 and 2020 extended up to November and during the 2021 monsoon season high rainfall was experienced in the entire North East Region resulting in hindrance to the civil and erection works at site.

Asset-3

Hindrance to work on account of road blockade and bandhs due to Mizoram Assam Border clash

In October, 2020 to July, 2021 there were many bandhs and road blockade due to clashes in Mizoram and Assam Border land dispute due to which movement of labour and Service Engineers and materials were not allowed into Mizoram which disrupted the normal working of the day to day establishments. This led to delay in transport and movement of workers and goods. The details submitted by the Petitioner in this regard



are as follows:

Date of Bandh	No. of Days effected	Reason
27.7.2021-29.7.2021	10	Three-day mourning from 27.7.2021 to condole the killing of seven people, including five policemen, in a recent inter-State border clash with Mizoram
13.3.2021	5	24-hour Manipur Bandh for the demand of elections
22.3.2021	3	Tea tribes announce total bandh on March, 2022 over wages
22.10.2020-7.11.2020	16	Blast destroys school building near Assam-Mizoram border. A 12-hour bandh called by a students' organisation in protest against the abduction and killing of an Assam resident allegedly by attackers of Mizoram also affected normal life in Cachar district
7.11.2020	3	12-hour Barak Valley bandh
Total disrupted days=	37	

Non-approval of shutdown in case of Asset-4

For replacement of existing 220/132 kV, 100 MVA (3x33.3 MVA) ICT-1 at Dimapur with 2x220/132 kV 160 MVA ICTs, continuous shutdown of existing ICT-1 was requested w.e.f. 2.8.2019. However, the said shutdown was not allowed by System Operator/ Regional Power Committee on account of grid constraints. The matter was, thereafter, continuously taken up in subsequent OCC forums. The chronological minutes of OCC Meetings is as follows:

Description	Record note	Remarks
159 th OCC dated 21.8.2019	The forum felt that till 132 kV Dimpur-Imphal line and 132 kV Yurembam-Karong is restored the shutdown may not be granted. After detailed deliberation, Members were requested to study the proposal so that the matter may be discussed in the next OCCM.	Shutdown not approved
160 th OCC dated 17.9.2019	Director, NERPC requested NERLDC to conduct a detailed study so that the matter may be discussed in detail in the next OCCM in presence of officers from DoP Nagaland.	Shutdown not approved
161 st OCC dated 8.11.2019	The forum decided that no SPS is required and the shutdowns may be granted subject to restoration of 132 kV Dimapur-Kohima line and return of shutdown after upgradation of 132 kV Karong-Kohima (State line).	Shutdown not approved



162 nd OCC dated 25.11.2019	After detailed deliberation the forum agreed upon a tentative schedule for shutdown(s) connected to outage of 220/132 kV ICT-1 at Dimapur: (i) NEEPCO shall complete installation of Numerical relay for 132 kV Doyang-Dimapur D/C by 27.11.2019. Shutdown for installation of relay for 132 kV Doyang-Sanis shall be after Hornbill festival i.e. after 10.12.2019. (ii) 132 kV Karong-Kohima upgradation to be completed and line returned to service by 30.11.2019.	Shutdown deferred till specific conditions are met by other utilities.
163 rd OCC dated 15.1.2020	As in 162 nd OCC meeting	Shutdown deferred till specific conditions are met by other utilities.
164 th OCC dated 6.2.2020	DGM, MSPCL informed that upgradation of 132 kV Karong-Mao would be completed by 11.2.2020. It was informed that since Kohima bus is ACSR Panther, it is not sufficient to cater to Dimapur peak load of 85 MW. After detailed deliberation it was decided that a study would be carried out by NERLDC to determine the quantum of Minutes of 164 th OCC meeting held on 21st January, 2020 at Guwahati power that can be supplied with availability of 132 kV Karong-Kohima, 132 kV Dimapur-Kohima and 132 kV DHEP-Sanis-Wokha-Kohima.	Shutdown deferred for system constraints till specific conditions are met by other utilities.
165 th OCC dated 28.2.2020	The forum requested NERLDC to conduct fresh study considering return of 132 kV Dimapur-Kohima, return of 132 kV Karong-Kohima with higher capacity and support from Bokajan	Shutdown deferred for system constraints till specific conditions are met by other utilities.
166 th OCC dated 31.3.2020	After detailed deliberation the following were decided: NERLDC to conduct a fresh study considering maximum possible support from Karong side, 15-20 MW support from Bokajan and temporary reconfiguration of 132 kV Kohima-Dimapur into 132 kV Imphal-Dimapur. DoP Nagaland to identify load for SPS based shedding based on the study by NERLDC. NERTS to divert protection coupler to Dimapur (PG).	Shutdown deferred for system constraints till specific conditions are met by other utilities.
167 th OCC dated 3.7.2020	-----	Shutdown deferred
169 th OCC dated 28.8.2020	After detailed deliberation the forum approved the shutdown of 132 kV Dimapur-Kohima on 16.8.2020 and the continuous shutdown of ICT-I & 220 kV Bus-Coupler at Dimapur subsequently.	Shutdown approved.

Non-approval of shutdown in case of Asset-5

For facilitating installation of Interface Module for coupling of 132 kV side bay of



220/132 kV, 30 MVA ICT III to existing 132 kV GIS and coupling of new GIS bay with existing bus, shutdown of was sought from NERPC w.e.f. 18.9.2021. However, the said shutdown was not allowed by System Operator/ Regional Power Committee until 26.12.2021 on account of grid constraints. The chronology from the application of shut down to final approval is as follows:

Sl. No.	SD Applied for	Applied on	Communication Ref	Remarks
1	Installation of Interface module for coupling of New GIS to existing GIS	18.9.2021	Email 1	Not Approved
2	Installation of Interface module for coupling of New GIS to existing GIS	9.11.2021	Email 2	Not Approved
3	Installation of Interface module for coupling of New GIS to existing GIS	18.11.2021	Email 2	Not Approved
4	Installation of Interface module for coupling of New GIS to existing GIS	24.11.2021	Email 2	Not Approved
5	Installation of Interface module for coupling of New GIS to existing GIS	1.12.2021	Email 2	Not Approved
6	Installation of Interface module for coupling of New GIS to existing GIS	8.12.2021	Email 2	Not Approved
7	132 kV Bus Coupling with New Bay (132 kV Side ICT III Bay), HV testing and Laying of 132 kV XLPE Cable from outdoor trench to indoor trench	16.12.2021	Email 2	Not Approved
8	Installation of Interface module for coupling of New GIS to existing GIS	20.12.2021	Email 3	Approved
9	HV testing and Laying of 132 kV XLPE Cable from outdoor trench to indoor trench	1.1.2022	Email 4	Not Approved
10	HV testing and Laying of 132 kV XLPE Cable from outdoor trench to indoor trench	7.1.2022	Email 5	Not Approved
11	HV testing and Laying of 132 kV XLPE Cable from outdoor trench to indoor trench	25.2.2022	Email 6	Not Approved
12	132 kV HV Testing of 132 kV Side ICT III Bay with New Bus	28.2.2022	Email 7	Not Approved
13	132 kV Bus extension from existing GIS to New GIS (Gas removal, Conductor connection, Vacuum, Gas filling and Testing's)	28.2.2022	Email 7	Approved

22. The Petitioner has requested to condone the time over-run under Regulation 22(2)(c) of the 2019 Tariff Regulations.



23. We have considered the submission of the Petitioner. We have also gone through the documentary evidences placed on record by the Petitioner to justify the time over-run. The transmission assets were scheduled to be put into commercial operation within 30 months from the date of IA dated 20.9.2018 against which Asset-1, Asset-2, Asset-3, Asset-4 and Asset-5 have been put into commercial operation on 23.8.2021, 30.10.2021, 16.1.2022, 18.2.2022 and 9.3.2022, respectively. Accordingly, there is a time over-run of 156 days, 224 days, 302 days, 335 days, and 354 days in respect of Asset-1, Asset-2, Asset-3, Asset-4, and Asset-5, respectively.

24. The Petitioner has submitted that the time over-run in case of all the transmission assets was due to COVID-19. The Petitioner has further submitted that in case of Asset-1 and Asset-2, it was due to hindrance to work on account of road blockade and bandhs in the aftermath of anti-CAB agitation and extended rain fall and flood. Asset-3 was delayed due to hindrance to work on account of road blockade and bandhs in the aftermath of anti-CAB agitation and extended rain fall, Mizoram-Assam Border clash, extended rainfall and flood. Asset-4 and Asset-5 got delayed due to non-approval of shutdown, hindrance to work on account of road blockade and bandhs in the aftermath of anti-CAB agitation and extended rain fall and flood.

25. The MoP vide letter dated 27.7.2020 and 12.6.2021 has extended the SCOD by 5 months and 3 months, respectively, for inter-State transmission project because of COVID-19 pandemic. The relevant extracts of the letter dated 27.7.2020 of MoP, which provided for extension of 5 months in respect of SCOD for inter-State transmission projects 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.”*

3. This issue with the approval of Competent Authority.”

26. The relevant extracts of the letter dated 12.6.2021 of MoP, which provided extension of 3 months in respect of SCOD for inter-State transmission projects is as follows:

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects – reg.

Sir,

I am directed to state that transmission utilities have approached this Ministry stating that construction activity at various transmission projects sites have been severely affected by the current second wave of COVID-19 pandemic and various measures taken by State/UT Governments to contain the pandemic; such as night curfew, imposition of section 144, weekend lockdown and complete lockdown. In this regard they have requested for extension of Scheduled Commercial Operation Date (SCOD) for the undergoing Transmission projects to mitigate the issues of disruption in supply chains and manpower, caused due to COVID-19 pandemic.

2. The matter has been examined in the Ministry and it has been noted that unlike last year complete lock-down in the entire country, this time different States/UTs have ordered lock-down in their State/UTs as per their own assessments. Therefore, after due consideration, it has been decided that;

- i. All inter-state transmission projects, which are under construction with SCOD coming after 01 April 2021 shall get an extension of three (3) months in respect of their SCOD;*
- ii. The commencement date of Long Term Access (LTA) to a generator by CTU*



based on completion of a transmission line, whose SCOD is extended by three (3) months due to COVID-19 as mentioned above at point(i), shall also be extended by three (3) months.

3. *This issue with the approval of Competent Authority.”*

27. As per IA, the SCOD of the transmission project is 20.3.2021. In terms of the above letters dated 27.7.2020 and 12.6.2021, the COD of the transmission assets has to be extended by 5 months and by 3 months respectively. Accordingly, the revised SCOD of the transmission assets is 20.11.2021. As per the revised SCOD of 20.11.2021, there is no time over-run in case of Asset-1 and Asset-2. There is time over-run of 57 days, 90 days and 109 days in case of Asset-3, Asset-4 and Asset-5 respectively in terms of the revised SCOD.

Asset-3

28. The Petitioner has submitted that the Asset-3 was affected by 3 months due to rainfall and floods during the monsoon in 2019 and 2020. The Petitioner has submitted paper clippings to show that there was excessive rainfall. It is observed from the trend of average rainfall over the past few years, the rainfall received in Assam in 2019 and 2020 was not abnormally high. The Petitioner should have planned better to address issues arising because of rains. In our view, delay on this count was not beyond the control of the Petitioner. Hence, the time over-run of 3 months due to heavy rainfall is not condoned.

29. The Petitioner has further submitted that the Asset-3 was affected by CAB agitation for one month, i.e. in December, 2019. The Petitioner has submitted random photographs and paper clippings to show that there were protests on account of anti-CAB. However, the Petitioner has not submitted how the anti-CAB agitation affected the execution of Asset-3. On the basis of the information submitted by the Petitioner,



we are not convinced about the alleged delay of one month due to anti-CAB agitation. Accordingly, the delay of one month due to anti-CAB agitation is not condoned.

30. The Petitioner has also submitted that the road blockade and bandhs due to Mizoram-Assam Border clash delayed the completion of Asset-3 by two months. In support of its contentions, the Petitioner has submitted random paper clippings to show that there were bandhs. The Petitioner has not submitted how the blockade and the bands affected the implementation of Asset-3. On the basis of the documents submitted by the Petitioner, we are not convinced about the alleged delay due to bandhs. Hence, the delay of two months due to bandhs is not condoned.

Asset-4

31. The SCOD of Asset-4 was 20.3.2021 and it was put into commercial operation on 18.2.2022. The Petitioner has submitted that the time over-run of about one-year from August, 2019 to August, 2020 was due to non-approval of shutdown. In support of its contention, the Petitioner has submitted the minutes of various minutes of the OCC meetings. It is noticed that the shutdown was not granted to the Petitioner by OCC in its 159th meeting dated 21.8.2019, 160th OCC meeting dated 17.9.2019, 161st OCC meeting dated 8.11.2019, 162nd OCC meeting dated 25.11.2019, 163rd OCC meeting dated 15.1.2020, 165th OCC meeting dated 28.2.2020, 166th OCC meeting dated 31.3.2020 and 167th OCC meeting dated 3.7.2020. The shutdown was finally approved in 169th OCC meeting held on 28.8.2020, i.e. more than six months prior to the scheduled COD of 20.3.2021. The Asset-4 was put into commercial operation on 18.2.2022. Thus, after the approval of shutdown on 28.8.2020, the Petitioner took almost 18 months to put the Asset-4 into commercial operation. We have already condoned the time over-run of the transmission asset, including Asset-4, by revising



the SCOD of the transmission assets to 20.11.2021, because of the Covid-19 Pandemic. The Petitioner has not submitted any justification for taking 18 months for completion of the asset after grant of shut down. Therefore, we are not able to agree with the Petitioner's contention that the time over-run in case of Asset-4 is on account of the delay in grant of shut down. Accordingly, the time over-run of 90 days in case of Asset-4 from the revised SCOD of 20.11.2021 is not condoned.

32. The Petitioner has further submitted that the Asset-4 was affected by CAB agitation for one month, i.e. in December, 2019. The Petitioner has submitted random photographs and paper clippings to show that there were protests on account of anti-CAB. However, the Petitioner has not submitted how the anti-CAB agitation affected the execution of Asset-4. On the basis of the information submitted by the Petitioner, we are not convinced about the alleged delay of one month due to anti-CAB agitation. Accordingly, the delay of one month due to anti-CAB agitation is not condoned.

33. The Petitioner has submitted that the Asset-4 was affected by 1 month due to rainfall and floods during the monsoon in 2019 and 2020 and also monsoon seasons of 2021. The Petitioner has submitted paper clippings to show that there was excessive rainfall. It is observed from the trend of average rainfall over the past few years, the rainfall received in Assam in 2019 and 2020 was not abnormally high. The Petitioner should have planned better to address issues arising because of rains. In our view, delay on this count was not beyond the control of the Petitioner. Hence, the time over-run of 1 month due to heavy rainfall is not condoned.

Asset-5

34. The Petitioner has submitted that there was time over-run of about four months



from September, 2021 to December, 2021 due to non-approval of shutdown, one month, i.e. December, 2019 was affected due to CAB agitation and one month due to rainfall and floods during the monsoon in 2019 and 2020. We have gone through the submissions of the Petitioner. The period of time over-run due to CAB agitation and monsoon in 2019 and 2020 are subsumed in the revised SCOD upto 20.11.2021. It is observed that the shutdown in case of Asset-5 was approved by the OCC on 28.2.2022 and therefore the Petitioner could carry out the work only after 28.2.2022. Thus, the time over-run of 109 days, beyond 20.11.2021 was due to delay in grant of shutdown and we are of the view that was beyond the control of the Petitioner and accordingly the same is condoned.

35. Accordingly, the time over-run condoned/ not condoned in respect of the transmission assets is as follows:

Assets	Revised SCOD as per MoP letters dated 27.7.2020 and 12.6.2021	COD	Total time over-run (days)	Time over-run condoned (days)	Time over-run not condoned (days)
Asset-1	20.11.2021	23.8.2021		-	-
Asset-2		30.10.2021		-	-
Asset-3		16.1.2022	57 days	-	57 days
Asset-4		18.2.2022	90 days	-	90 days
Asset-5		9.3.2022	109 days	109 days	-

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

36. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

37. The loan amount as on COD has been mentioned in Form-6 and Form-9C. The loan details submitted in Form-9C for 2019-24 tariff period and IDC computation statement have been considered for the purpose of IDC calculation on cash basis and



on accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. However, in the statement showing IDC discharged up to COD, the Petitioner has indicated the floating rate of interest of the loans deployed. IDC on cash basis up to COD has been worked out on the basis of loan details given in the statement showing discharge of IDC and Form-9C for the transmission asset. The Petitioner is directed to submit the information on actual interest rates at the time of truing-up.

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

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC admissible	IDC disallowed due to computational difference / time over-run not allowed	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC Discharge During	
						2021-22	2022-23
						A	B
Asset-1	145.23	142.60	2.63	104.97	37.63	4.31	33.33
Asset-2	38.80	38.80	0.00	36.39	2.41	2.41	0.00
Asset-3	33.26	32.73	0.53	25.53	7.20	7.20	0.00
Asset-4	44.72	44.72	0.00	44.72	0.00	0.00	0.00
Asset-5	39.06	39.06	0.00	39.06	0.00	0.00	0.00

39. The Petitioner has claimed IEDC and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission assets. Accordingly, IEDC allowed is as follows:

(₹ in lakh)

Assets	IEDC claimed	IEDC disallowed due to time over-run	IEDC allowed
Asset-1	426.69	0.00	426.69
Asset-2	219.93	0.00	219.93
Asset-3	236.28	11.09	225.19
Asset-4	775.59	55.98	719.61
Asset-5	106.71	0.00	106.71



Initial Spares

40. Regulation 23(d) of the 2019 Tariff Regulations provides the following ceiling norms:

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

41. The Petitioner has claimed the following Initial Spares:

Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost and cost of civil works) (₹ in lakh) (A)	Initial Spares as claimed (₹ in lakh) (B)	Ceiling limit % as per Regulation (C)	Initial Spares worked out as per Regulation (D=(A-B)*C/(100-C)%) (₹ in lakh)	Excess spares (E=B-D) (₹ in lakh)
Asset-1	Sub-station	3027.62	119.31	7.00	218.91	0.00
	PLCC	88.77	5.96	7.00	6.23	0.00
Asset-2	Sub-station	1753.94	50.18	7.00	128.24	0.00
	PLCC	89.25	5.96	7.00	6.27	0.00
Asset-3	Sub-station	1775.15	97.50	7.00	126.27	0.00
Asset-4	Sub-station	6155.94	184.34	7.00	449.48	0.00
Asset-5	Sub-station	2048.21	142.10	7.00	143.47	0.00

42. The Petitioner has submitted that the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has considered PLCC as a part of sub-station in the 2019 Tariff Regulations and the norms for sub-station has been specified accordingly. Accordingly, Initial Spares pertaining to communication system is claimed as part of the sub-station.

43. We have considered the submissions of the Petitioner. The Petitioner vide



affidavit dated 24.8.2022 has submitted the details of Initial Spares in Form-13. Initial Spares allowed are as follows:

Assets	Particulars	Plant & Machinery Cost up to cut-off date (₹ in lakh) (excluding IDC and IEDC)	Initial Spares Claimed (₹ in lakh)	Allowable Initial Spares (₹ in lakh)	Ceiling Limit (in %)	Initial Spares allowed (₹ in lakh)	Excess Initial Spares (₹ in lakh)
Asset-1	Sub-station	3116.39	125.27	225.14	7.00	125.27	0.00
Asset-2	Sub-station	1781.09	56.14	134.51	7.00	56.14	0.00
Asset-3	Sub-station	1677.66	97.50	126.27	7.00	97.50	0.00
Asset-4	Sub-station	5971.59	184.34	449.48	7.00	184.34	0.00
Asset-5	Sub-station	2048.21	142.10	143.47	7.00	142.10	0.00

Capital Cost allowed as on COD

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

Assets	Capital cost claimed in Auditor's Certificate as on COD (A)	Less: IDC disallowed due to computational difference / over-run (B)	Less: IDC un-discharged as on COD (C)	Less: IEDC disallowed due to time over-run (D)	Capital cost allowed as on COD (E) = (A-B-C-D)
Asset-1	2790.91	2.63	37.63	0.00	2750.65
Asset-2	1286.03	0.00	2.41	0.00	1283.62
Asset-3	1261.28	0.53	7.20	11.09	1242.45
Asset-4	6020.60	0.00	0.00	55.98	5964.62
Asset-5	1901.58	0.00	0.00	0.00	1901.58

Additional Capital Expenditure ("ACE")

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

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

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



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

(b) Works deferred for execution;

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

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

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

(f) Force Majeure events:

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

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

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

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

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

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

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

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

e) Force Majeure events;

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

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:
(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations.

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

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and



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

46. The Petitioner has claimed projected ACE for 2019-24 tariff period on account of balance and retention payments for works executed within the cut-off date under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The projected ACE claimed by the Petitioner are as follows:

(₹ in lakh)

Assets	Projected ACE		
	2021-22	2022-23	2023-24
Asset-1	137.06	998.74	47.46
Asset-2	734.13	84.12	199.93
Asset-3	646.14	355.00	0.00
Asset-4	54.60	1316.23	146.25
Asset-5	0.00	290.67	54.98

47. The Petitioner vide affidavit dated 24.8.2022 has submitted the liability flow statement. The details are as follows:

(₹ in lakh)

		Asset-1					
Head wise/ Party wise	Particulars	Discharge			Work deferred for execution		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Shandong Taikai	Sub-station	0.00	195.88	0.00	34.77	139.09	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	18.93	0.00	0.00	0.00	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	86.99	0.00	42.49	169.96	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	37.96	0.00	47.88	191.52	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	0.00	0.00	11.92	47.67	0.00
Other	Sub-station	0.00	0.00	0.00	0.00	110.74	47.46
Total		0.00	339.76	0.00	137.06	658.98	47.46

(₹ in lakh)

		Asset-2					
Head wise/ Party wise	Particulars	Discharge			Work deferred for execution		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Shandong Taikai	Sub-station	0.00	0.00	0.00	472.47	0.00	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	53.04	0.00	0.00	38.64	0.00	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	23.40	0.00	0.00	123.41	0.00	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	2.00	0.00	0.00	21.16	0.00	0.00



Others	Sub-station	0.00	0.00	0.00	0.00	45.40	164.75
Others	Sub-station	0.00	0.00	0.00	0.00	38.72	35.18
Total		78.44	0.00	0.00	655.68	84.12	199.93

(₹ in lakh)

Asset-3							
Head wise/ Party wise	Particulars	Discharge			Work deferred for execution		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Shandong Taikai	Sub-station	0.00	0.00	0.00	375.02	160.72	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	43.15	0.00	98.06	42.03	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	32.93	0.00	99.90	42.82	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	2.00	0.00	12.45	5.33	0.00
Others	Sub-station	0.00	0.00	0.00	60.72	26.02	0.00
Total		0.00	78.08	0.00	646.15	276.92	0.00

(₹ in lakh)

Asset-4							
Head wise/ Party wise	Particulars	Discharge			Work deferred for execution		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Shandong Taikai	Sub-station	0.00	461.78	51.31	0.00	196.29	21.81
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	187.39	20.82	0.00	139.14	15.46
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	95.98	10.66	0.00	96.49	10.72
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	0.00	0.00	0.00	48.67	5.40
Mr. Debasish Mallick Chowdhury	Sub-station	0.00	6.45	0.72	0.00	37.87	4.22
Hetoli Achumi	Sub-station	0.00	0.34	0.04	0.00	5.59	0.62
Schneider Electric India	Sub-station	0.00	0.00	0.00	0.00	36.64	4.07
L&T	Sub-station	0.00	0.00	0.00	54.60	0.00	0.00
GE T&D India Ltd	Sub-station	0.00	0.00	0.00	0.00	3.60	0.40
Total		0.00	751.94	83.55	54.60	564.29	62.70

(₹ in lakh)

Asset-5							
Head wise/ Party wise	Particulars	Discharge			Work deferred for execution		
		2021-22	2022-23	2023-24	2021-22	2022-23	2023-24
Shandong Taikai	Sub-station	0.00	29.62	7.40	0.00	36.17	4.02
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	82.25	20.56	0.00	8.49	0.94
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	36.75	9.19	0.00	0.00	0.00
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	14.72	3.68	0.00	21.58	2.40
Godrej and Boyce Mfg. Co. Ltd	Sub-station	0.00	0.00	0.00	0.00	13.17	1.46
Mani Borah	Sub-station	0.00	0.00	0.00	0.00	47.92	5.33
Total		0.00	163.34	40.83	0.00	127.33	14.15



48. We have considered the submissions of the Petitioner. ACE claimed is on account of balance and retention payments and work executed after COD and within cut-off date under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations and it is accordingly allowed. The projected ACE allowed for the transmission assets subject to truing up is as follows:

(₹ in lakh)

Asset-1			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	137.06	998.74	47.46
Add: IDC discharge	4.31	33.33	0.00
Total	141.37	1032.07	47.46

(₹ in lakh)

Asset-2			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	734.13	84.12	199.93
Add: IDC discharge	2.41	0.00	0.00
Total	736.54	84.12	199.93

(₹ in lakh)

Asset-3			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	646.14	355.00	0.00
Add: IDC discharge	7.20	0.00	0.00
Total	653.34	355.00	0.00

(₹ in lakh)

Asset-4			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	54.60	1316.23	146.25
Add: IDC discharge	0.00	0.00	0.00
Total	54.60	1316.23	146.25



(₹ in lakh)

Asset-5			
Particulars	Proposed ACE		
	2021-22	2022-23	2023-24
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	0.00	290.67	54.98
Add: IDC discharge	0.00	0.00	0.00
Total	0.00	290.67	54.98

Capital Cost as on 31.3.2024

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

Assets	Capital cost allowed as on COD	Projected ACE			Total capital cost as on 31.3 2024
		2021-22	2022-23	2023-24	
Asset-1	2750.65	141.37	1032.07	47.46	3971.54
Asset-2	1283.62	736.54	84.12	199.93	2304.21
Asset-3	1242.45	653.34	355.00	0.00	2250.78
Asset-4	5964.62	54.60	1316.23	146.25	7481.70
Asset-5	1901.58	0.00	290.67	54.98	2247.23

Debt-Equity Ratio

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

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

Provided that:

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

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



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

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

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

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

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

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

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

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

(₹ in lakh)				
Asset-1				
Particulars	Capital cost as on COD (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1925.45	70.00	2780.08	70.00
Equity	825.19	30.00	1191.46	30.00
Total	2750.65	100.00	3971.54	100.00



(₹ in lakh)

Asset-2				
Particulars	Capital cost as on COD (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	898.53	70.00	1612.95	70.00
Equity	385.09	30.00	691.26	30.00
Total	1283.62	100.00	2304.21	100.00

(₹ in lakh)

Asset-3				
Particulars	Capital cost as on COD (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	869.71	70.00	1575.55	70.00
Equity	372.73	30.00	675.24	30.00
Total	1242.45	100.00	2250.78	100.00

(₹ in lakh)

Asset-4				
Particulars	Capital cost as on COD (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	4175.24	70.00	5237.19	70.00
Equity	1789.39	30.00	2244.51	30.00
Total	5964.62	100.00	7481.70	100.00

(₹ in lakh)

Asset-5				
Particulars	Capital cost as on COD (₹ in lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1331.11	70.00	1573.06	70.00
Equity	570.47	30.00	674.17	30.00
Total	1901.58	100.00	2247.23	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 Asset-of the generating station and transmission system:

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

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

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

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

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same,



depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

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

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

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

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

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

(₹ in lakh)				
Asset-1				
	Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
A	Opening Gross Block	2750.65	2892.01	3924.08
B	Addition during the year 2019-24 due to projected ACE	141.37	1032.07	47.46
C	Closing Gross Block (A+B)	2892.01	3924.08	3971.54
D	Average Gross Block (A+C)/2	2821.33	3408.05	3947.81
E	Average Gross Block (90% depreciable assets)	2727.80	3298.65	3825.08
F	Average Gross Block (100% depreciable assets)	93.53	109.40	122.73
G	Depreciable value (excluding IT equipment and software) (E*90%)	2455.02	2968.79	3442.57
H	Depreciable value of IT equipment and software (F*100%)	93.53	109.40	122.73
I	Total Depreciable Value (G+H)	2548.55	3078.18	3565.30



Asset-1				
	Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
J	Weighted average rate of Depreciation (WAROD) (in %)	5.50	5.48	5.46
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	24.00	24.00	23.00
M	Depreciation during the year (D*J)	93.99	186.87	215.49
N	Cumulative Depreciation at the end of the year	93.99	280.85	496.34
O	Remaining Aggregate Depreciable Value at the end of the year	2454.56	2797.33	3068.96

(₹ in lakh)

Asset-2				
	Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
A	Opening Gross Block	1283.62	2020.16	2104.28
B	Addition during the year 2019-24 due to projected ACE	736.54	84.12	199.93
C	Closing Gross Block (A+B)	2020.16	2104.28	2304.21
D	Average Gross Block (A+C)/2	1651.89	2062.22	2204.25
E	Average Gross Block (90% depreciable assets)	1613.18	2022.06	2164.09
F	Average Gross Block (100% depreciable assets)	38.71	40.16	40.16
G	Depreciable value (excluding IT equipment and software) (E*90%)	1451.86	1819.85	1947.68
H	Depreciable value of IT equipment and software (F*100%)	38.71	40.16	40.16
I	Total Depreciable Value (G+H)	1490.57	1860.01	1987.84
J	Weighted average rate of Depreciation (WAROD) (in %)	5.40	5.36	5.32
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	24.00	24.00	23.00
M	Depreciation during the year (D*J)	37.36	110.47	117.30
N	Cumulative Depreciation at the end of the year	37.36	147.83	265.13
O	Remaining Aggregate Depreciable Value at the end of the year	1453.21	1712.19	1722.71

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
A	Opening Gross Block	1242.45	1895.78	2250.78
B	Addition during the year 2019-24 due to projected ACE	653.34	355.00	0.00
C	Closing Gross Block (A+B)	1895.78	2250.78	2250.78

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Asset-3				
	Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
D	Average Gross Block (A+C)/2	1569.12	2073.28	2250.78
E	Average Gross Block (90% depreciable assets)	1530.84	2020.34	2193.15
F	Average Gross Block (100% depreciable assets)	38.28	52.94	57.63
G	Depreciable value (excluding IT equipment and software) (E*90%)	1377.75	1818.31	1973.83
H	Depreciable value of IT equipment and software (F*100%)	38.28	52.94	57.63
I	Total Depreciable Value (G+H)	1416.03	1871.25	2031.47
J	Weighted average rate of Depreciation (WAROD) (in %)	5.34	5.35	5.35
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	24.00	24.00	23.00
M	Depreciation during the year (D*J)	17.22	110.97	120.47
N	Cumulative Depreciation at the end of the year	17.22	128.20	248.67
O	Remaining Aggregate Depreciable Value at the end of the year	1398.81	1743.05	1782.80

(₹ in lakh)

Asset-4				
	Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
A	Opening Gross Block	5964.62	6019.22	7335.45
B	Addition during the year 2019-24 due to projected ACE	54.60	1316.23	146.25
C	Closing Gross Block (A+B)	6019.22	7335.45	7481.70
D	Average Gross Block (A+C)/2	5991.92	6677.34	7408.58
E	Average Gross Block (90% depreciable assets)	5931.38	6609.02	7331.62
F	Average Gross Block (100% depreciable assets)	60.54	68.32	76.96
G	Depreciable value (excluding IT equipment and software) (E*90%)	5338.24	5948.12	6598.46
H	Depreciable value of IT equipment and software (F*100%)	60.54	68.32	76.96
I	Total Depreciable Value (G+H)	5398.79	6016.44	6675.42
J	Weighted average rate of Depreciation (WAROD) (in %)	5.22	5.23	5.23
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	36.02	348.92	387.15
N	Cumulative Depreciation at the end of the year	36.02	384.94	772.09
O	Remaining Aggregate Depreciable Value at the end of the year	5362.76	5631.50	5903.32



Asset-5				
	Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
A	Opening Gross Block	1901.58	1901.58	2192.25
B	Addition during the year 2019-24 due to projected ACE	0.00	290.67	54.98
C	Closing Gross Block (A+B)	1901.58	2192.25	2247.23
D	Average Gross Block (A+C)/2	1901.58	2046.92	2219.74
E	Average Gross Block (90% depreciable assets)	1888.54	2033.43	2205.70
F	Average Gross Block (100% depreciable assets)	13.04	13.49	14.04
G	Depreciable value (excluding IT equipment and software) (E*90%)	1699.69	1830.09	1985.13
H	Depreciable value of IT equipment and software (F*100%)	13.04	13.49	14.04
I	Total Depreciable Value (G+H)	1712.73	1843.57	1999.17
J	Weighted average rate of Depreciation (WAROD) (in %)	5.35	5.32	5.30
K	Lapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
L	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
M	Depreciation during the year (D*J)	6.41	108.92	117.59
N	Cumulative Depreciation at the end of the year	6.41	115.33	232.92
O	Remaining Aggregate Depreciable Value at the end of the year	1706.32	1728.24	1766.25

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 asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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



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

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

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

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

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

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

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

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

(₹ in lakh)				
Asset-1				
	Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
A	Gross Normative Loan	1925.45	2024.41	2746.86
B	Cumulative Repayments up to Previous Year	0.00	93.99	280.85
C	Net Loan-Opening (A-B)	1925.45	1930.42	2466.00
D	Addition due to ACE	98.96	722.45	33.22
E	Repayment during the year	93.99	186.87	215.49
F	Net Loan-Closing (C+D-E)	1930.42	2466.00	2283.74
G	Average Loan (C+F)/2	1927.94	2198.21	2374.87



Asset-1				
	Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
H	Weighted Average Rate of Interest on Loan (in %)	6.51	6.50	6.50
I	Interest on Loan (G*H)	75.94	142.92	154.31

(₹ in lakh)

Asset-2				
	Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
A	Gross Normative Loan	898.53	1414.11	1473.00
B	Cumulative Repayments up to Previous Year	0.00	37.36	147.83
C	Net Loan-Opening (A-B)	898.53	1376.75	1325.17
D	Addition due to ACE	515.58	58.88	139.95
E	Repayment during the year	37.36	110.47	117.30
F	Net Loan-Closing (C+D-E)	1376.75	1325.17	1347.82
G	Average Loan (C+F)/2	1137.64	1350.96	1336.49
H	Weighted Average Rate of Interest on Loan (in %)	5.95	5.95	5.95
I	Interest on Loan (G*H)	28.37	80.38	79.52

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
A	Gross Normative Loan	869.71	1327.05	1575.55
B	Cumulative Repayments up to Previous Year	0.00	17.22	128.20
C	Net Loan-Opening (A-B)	869.71	1309.82	1447.35
D	Addition due to ACE	457.34	248.50	0.00
E	Repayment during the year	17.22	110.97	120.47
F	Net Loan-Closing (C+D-E)	1309.82	1447.35	1326.88
G	Average Loan (C+F)/2	1089.77	1378.59	1387.12
H	Weighted Average Rate of Interest on Loan (in %)	5.95	5.95	5.95
I	Interest on Loan (G*H)	13.32	82.03	82.53

(₹ in lakh)

Asset-4				
	Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
A	Gross Normative Loan	4175.24	4213.46	5134.82
B	Cumulative Repayments up to Previous Year	0.00	36.02	384.94
C	Net Loan-Opening (A-B)	4175.24	4177.43	4749.88
D	Addition due to ACE	38.22	921.36	102.38
E	Repayment during the year	36.02	348.92	387.15
F	Net Loan-Closing (C+D-E)	4177.43	4749.88	4465.10
G	Average Loan (C+F)/2	4176.33	4463.66	4607.49



Asset-4				
	Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
H	Weighted Average Rate of Interest on Loan (in %)	5.99	5.99	5.99
I	Interest on Loan (G*H)	28.77	267.21	275.82

(₹ in lakh)

Asset-5				
	Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
A	Gross Normative Loan	1331.11	1331.11	1534.58
B	Cumulative Repayments up to Previous Year	0.00	6.41	115.33
C	Net Loan-Opening (A-B)	1331.11	1324.70	1419.25
D	Addition due to ACE	0.00	203.47	38.49
E	Repayment during the year	6.41	108.92	117.59
F	Net Loan-Closing (C+D-E)	1324.70	1419.25	1340.15
G	Average Loan (C+F)/2	1327.90	1371.97	1379.70
H	Weighted Average Rate of Interest on Loan (in %)	5.95	5.95	5.95
I	Interest on Loan (G*H)	4.98	81.63	82.09

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 due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- i. *In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation*



without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;
- iii. in case of a thermal generating station, with effect from 1.4.2020:
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

Rate of pre-tax return on equity = Base rate / (1-t)

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

Illustration-

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



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

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

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

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

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

(₹ in lakh)

Asset-1				
	Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
A	Opening Equity	825.19	867.60	1177.22
B	Addition due to ACE	42.41	309.62	14.24
C	Closing Equity (A+B)	867.60	1177.22	1191.46
D	Average Equity (A+C)/2	846.40	1022.41	1184.34
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	96.25	192.03	222.44

(₹ in lakh)

Asset-2				
	Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
A	Opening Equity	385.09	606.05	631.28
B	Addition due to ACE	220.96	25.24	59.98



Asset-2				
	Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
C	Closing Equity (A+B)	606.05	631.28	691.26
D	Average Equity (A+C)/2	495.57	618.67	661.27
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	39.02	116.20	124.20

(₹ in lakh)

Asset-3				
	Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
A	Opening Equity	372.73	568.74	675.24
B	Addition due to ACE	196.00	106.50	0.00
C	Closing Equity (A+B)	568.74	675.24	675.24
D	Average Equity (A+C)/2	470.73	621.99	675.24
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	18.17	116.82	126.82

(₹ in lakh)

Asset-4				
	Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
A	Opening Equity	1789.39	1805.77	2200.64
B	Addition due to ACE	16.38	394.87	43.88
C	Closing Equity (A+B)	1805.77	2200.64	2244.51
D	Average Equity (A+C)/2	1797.58	2003.20	2222.57
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	38.85	376.24	417.44

(₹ in lakh)

Asset-5				
	Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
A	Opening Equity	570.47	570.47	657.68
B	Addition due to ACE	0.00	87.20	16.49
C	Closing Equity (A+B)	570.47	657.68	674.17
D	Average Equity (A+C)/2	570.47	614.07	665.92
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	6.75	115.34	125.07

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

59. The Petitioner has submitted that the AIS bays, which have been upgraded to GIS bays in the instant transmission project, pertains to Jiribam, Halflong, Kumarghat, Aizawl and Dimapur Sub-station, covered under various projects, for which true up petitions have already been disposed by the Commission. In the instant petition, O&M Expenses are applicable for upgraded GIS bays. However, O&M Expenses for AIS bays claimed under above said Sub-stations/ projects, have already been allowed by the Commission. Hence, in order to avoid claiming twice/excess O&M Expenses for the upgraded bays, O&M Expenses have not been claimed for upgraded bays in the instant petition. The same shall be claimed in the true up of instant transmission project and discontinued from AIS bays in respective projects i.e. final reconciliation shall be done (as applicable), in the instant and other petitions at the time of truing up.

60. O&M Expenses claimed by the Petitioner are as follows:

Assets	(₹ in lakh)		
	2021-22	2022-23	2023-24
Asset-1	0.00	0.00	0.00
Asset-2	0.00	0.00	0.00
Asset-3	0.00	0.00	0.00
Asset-4	9.60	86.31	89.42
Asset-5	3.11	50.95	52.76

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

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:



- i. *the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
 - ii. *the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
 - iii. *the O&M expenses of ± 500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
 - iv. *the O&M expenses of ± 800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
 - v. *the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
 - vi. *the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*
- (b) *The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.*
- (c) *The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*

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

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

62. We have considered the submissions of the Petitioner. The Petitioner has not claimed any O&M Expenses towards upgraded GIS bays due to the fact that the Petitioner has claimed O&M Expenses towards AIS bays in respective tariff petitions. O&M Expenses for AIS bays claimed will be reviewed at the time of truing-up of the respective true-up petitions. Accordingly, O&M Expenses are not approved for Asset-



1, Asset-2 and Asset-3.

63. O&M Expenses approved for Asset-4 and Asset-5 for 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
Sub-station Bays			
220 kV: Dimapur: ICT 1 HV Bay	1	1	1
132 kV: Dimapur: ICT 1 LV Bay	1	1	1
Norms			
220 kV (GIS)	16.884	17.472	18.088
132 kV (GIS)	12.061	12.481	12.922
Total Sub-station Bays	28.95	29.95	31.01
Transformer (in MVA)			
220 kV: Dimapur: ICT 1	160	160	160
Norm (₹ lakh/MVA)			
220 kV	0.263	0.272	0.282
Total Transformer (C)	42.08	43.52	45.12
Total O&M Expenses allowed	8.17	73.47	76.13

(₹ in lakh)

Asset – 5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
Sub-station Bays			
220 kV: Mokokchung: ICT HV Bay	1	1	1
132 kV: Mokokchung: ICT LV Bay	1	1	1
Norms			
220 kV (GIS)	16.884	17.472	18.088
132 kV (GIS)	12.061	12.481	12.922
Total Sub-station Bays	28.95	29.95	31.01
Transformer (in MVA)			
220 kV: Mokokchung: ICT	30	30	30
Norm (₹ lakh/MVA)			
220 kV	0.263	0.272	0.282
Total Transformer (C)	7.89	8.16	8.46
Total O&M Expenses allowed	2.32	38.11	39.47

Interest on Working Capital (“IWC”)

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

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

65. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2021. The Petitioner has considered the rate of IWC as 10.50%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 10.50% (SBI 1year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points and SBI 1year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points) for 2021-24. The components of the working capital and interest allowed thereon is as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00



Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	54.91	65.18	73.77
Total Working Capital	54.91	65.18	73.77
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	3.49	6.84	7.75

(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	31.21	38.35	39.99
Total Working Capital	31.21	38.35	39.99
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	1.37	4.03	4.20

(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00
Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	29.61	38.70	41.08
Total Working Capital	29.61	38.70	41.08
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	0.64	4.06	4.31

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	5.92	6.12	6.34
Working Capital for Maintenance Spares (15% of O&M expenses)	10.65	11.02	11.42
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	121.59	133.35	144.29
Total Working Capital	138.16	150.50	162.05
Rate of Interest for working capital (in %)	10.50	10.50	10.50

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Interest of working capital	1.67	15.80	17.02
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(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
Working Capital for O&M Expenses (O&M expenses for one month)	3.07	3.18	3.29
Working Capital for Maintenance Spares (15% of O&M expenses)	5.53	5.72	5.92
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	40.66	43.08	45.49
Total Working Capital	49.26	51.98	54.70
Rate of Interest for working capital (in %)	10.50	10.50	10.50
Interest of working capital	0.33	5.46	5.74

Annual Fixed Charges for 2019-24 Tariff Period

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

(₹ in lakh)

Asset-1			
Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
Depreciation	93.99	186.87	215.49
Interest on Loan	75.94	142.92	154.31
Return on Equity	96.25	192.03	222.44
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	3.49	6.84	7.75
Total	269.67	528.66	599.99

(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
Depreciation	37.36	110.47	117.30
Interest on Loan	28.37	80.38	79.52
Return on Equity	39.02	116.20	124.20
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	1.37	4.03	4.20
Total	106.12	311.08	325.22

(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
Depreciation	17.22	110.97	120.47



Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
Interest on Loan	13.32	82.03	82.53
Return on Equity	18.17	116.82	126.82
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	0.64	4.06	4.31
Total	49.35	313.88	334.13

(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
Depreciation	36.02	348.92	387.15
Interest on Loan	28.77	267.21	275.82
Return on Equity	38.85	376.24	417.44
O&M Expenses	8.17	73.47	76.13
Interest on Working Capital	1.67	15.80	17.02
Total	113.48	1081.64	1173.56

(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
Depreciation	6.41	108.92	117.59
Interest on Loan	4.98	81.63	82.09
Return on Equity	6.75	115.34	125.07
O&M Expenses	2.32	38.11	39.47
Interest on Working Capital	0.33	5.46	5.74
Total	20.79	349.46	369.96

Filing Fee and Publication Expenses

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

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 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 2019-24 tariff period.

Goods and Services Tax

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 shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of 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. Since GST is not levied on transmission service at present, 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 is not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and consequential IWC.

72. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.



Capital Spares

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. With effect from 1.11.2020, sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the billing, collection, and disbursement of transmission charges 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) AFC allowed in respect of the transmission assets for 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Asset-1			
Particulars	2021-22 (Pro-rata for 221 days)	2022-23	2023-24
Total	269.67	528.66	599.99

(₹ in lakh)

Asset-2			
Particulars	2021-22 (Pro-rata for 153 days)	2022-23	2023-24
Total	106.12	311.08	325.22

(₹ in lakh)

Asset-3			
Particulars	2021-22 (Pro-rata for 75 days)	2022-23	2023-24
Total	49.35	313.88	334.13



(₹ in lakh)

Asset-4			
Particulars	2021-22 (Pro-rata for 42 days)	2022-23	2023-24
Total	113.48	1081.64	1173.56

(₹ in lakh)

Asset-5			
Particulars	2021-22 (Pro-rata for 23 days)	2022-23	2023-24
Total	20.79	349.46	369.96

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

77. This order disposes of Petition No. 184/TT/2022 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Annexure - I

Asset-1									
2019-24	Admitted capital cost as on COD (₹ in lakh)	Projected ACE			Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	197.16	1.63	95.87	31.47	326.13	3.34	6.61	8.24	10.37
Sub-Station	2366.87	133.60	897.96	15.99	3414.42	5.28	128.50	155.73	179.86
PLCC	95.61	1.08	11.57	0.00	108.26	6.33	6.09	6.49	6.85
IT Equipment	91.00	5.06	26.67	0.00	122.73	15.00	14.03	16.41	18.41
Total	2750.65	141.37	1032.07	47.46	3971.54		155.23	186.87	215.49
					Average Gross Block (₹ in lakh)		2821.33	3408.05	3947.81
					Weighted Average Rate of Depreciation (in %)		5.50	5.48	5.46



Asset-2									
2019-24	Admitted capital cost as on COD (₹ in lakh)	Projected ACE			Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	140.64	20.24	34.00	34.00	228.88	3.34	5.04	5.94	7.08
Sub-Station	1009.32	702.45	50.12	165.93	1927.82	5.28	71.84	91.70	97.41
PLCC	96.40	10.95	0.00	0.00	107.35	6.33	6.45	6.80	6.80
IT Equipment	37.26	2.90	0.00	0.00	40.16	15.00	5.81	6.02	6.02
Total	1283.62	736.54	84.12	199.93	2304.21		83.32	110.47	117.30
					Average Gross Block (₹ in lakh)		1651.89	2062.22	2204.25
					Weighted Average Rate of Depreciation (in %)		5.40	5.36	5.32



Asset-3									
2019-24	Admitted capital cost as on COD (₹ in lakh)	Projected ACE			Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	151.75	58.88	37.29	0.00	247.92	3.34	6.05	7.66	8.28
Sub-Station	989.84	573.09	302.80	0.00	1865.73	5.28	67.39	90.52	98.51
PLCC	72.55	1.43	5.52	0.00	79.50	6.33	4.64	4.86	5.03
IT Equipment	28.31	19.93	9.39	0.00	57.63	15.00	5.74	7.94	8.65
Total	1242.45	653.34	355.00	0.00	2250.78		83.82	110.97	120.47
Average Gross Block (₹ in lakh)							1569.12	2073.28	2250.78
Weighted Average Rate of Depreciation (in %)							5.34	5.35	5.35



Asset-4

2019-24 Capital Expenditure as on COD	Admitted capital cost as on COD (₹ in lakh)	Projected ACE			Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	494.02	0.00	114.13	12.68	620.83	3.34	16.50	18.41	20.52
Sub-Station	5373.16	54.60	1183.53	131.50	6742.79	5.28	285.14	317.83	352.55
PLCC	36.89	0.00	3.02	0.34	40.25	6.33	2.34	2.43	2.54
IT Equipment	60.54	0.00	15.55	1.73	77.82	15.00	9.08	10.25	11.54
Total	5964.62	54.60	1316.23	146.25	7481.70		313.06	348.92	387.15
Average Gross Block (₹ in lakh)							5991.92	6677.34	7408.58
Weighted Average Rate of Depreciation (in %)							5.22	5.23	5.23



Asset-5									
2019-24	Admitted capital cost as on COD (₹ in lakh)	Projected ACE			Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations		
Capital Expenditure as on COD		2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Building	0.00	0.00	47.92	5.33	53.25	3.34	0.00	0.80	1.69
Sub-Station	1888.54	0.00	241.86	49.43	2179.83	5.28	99.71	106.10	113.79
IT Equipment	13.04	0.00	0.89	0.22	14.15	15.00	1.96	2.02	2.11
Total	1901.58	0.00	290.67	54.98	2247.23		101.67	108.92	117.59
Average Gross Block (₹ in lakh)							1901.58	2046.92	2219.74
Weighted Average Rate of Depreciation (in %)							5.35	5.32	5.30

