

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 8/TT/2022

Coram:

**Shri I. S. Jha, Member
Shri Arun Goyal, Member**

Date of Order: 30.12.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the transmission asset: 2 Nos. 400 kV Line bays of 400 kV D/C Barmer (RRVPNL)- Bhinmal (PG) line at Bhinmal Sub-station under "Line bays associated with various Regional Strengthening Schemes in NR".

And in the matter of:

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

.....Petitioner

Versus

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



5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
6. Punjab State Electricity Board,
The Mall, Patiala- 147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula- 134109 (Haryana).
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226001 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran, Bldg. (Near Karkadooma Courte),
Karkadooma 2nd Floor,
New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited (TPDDL),
33 kV Sub-station, Building
Hudson Lane, Kingsway Camp,
North Delhi- 110009.
14. Chandigarh Administration,
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan,
Kanwali Road, Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.

.....Respondent(s)



For Petitioner : Shri Ved Prakash Rastogi, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ashish Alankar, 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 in respect of the transmission asset - 2 Nos. 400 kV Line bays of 400 kV D/C Barmer (RRVPL)- Bhinmal (PG) line at Bhinmal Sub-station under "Line bays associated with various Regional Strengthening Schemes in NR (hereinafter referred to as "the transmission asset") under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (herein after referred to as "the 2019 Tariff Regulations").

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

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

2) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –9 above.

3) Condone the delay and allow IDC/IEDC as claimed in the petition.

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

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

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



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

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

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

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice”

3. **Backdrop of the case**

a) The Petitioner has been entrusted with the implementation of transmission system associated with “Line bays associated with various Regional Strengthening Schemes in NR”. The administrative approval and expenditure sanction of the transmission project was accorded by the Board of Directors of the Petitioner company vide C/CP/Line bays in NR, dated 29.3.2017 with an estimated cost of ₹5588 lakh including Interest during construction of ₹324 lakh based on October, 2016 price level.

b) The Petitioner has further submitted that the scope of the project was discussed and agreed in 38th Standing Committee meeting on Power System Planning of Northern Region held on 30.5.2016 and in the 38th meeting of NRPC meeting held on 25.10.2016.

c) The scope of work covered under “Line bays associated with various Regional Strengthening Schemes in NR” is as follows:



Sub-station

- a) Extension of 400/220 kV Bhinmal Sub-station
400 kV
Line Bays : 2 nos.
- b) Extension of 400/220 kV Sikar Sub-station
400 kV
Line Bays : 2 nos.
Line Reactors (50 MVAR, 420 kV, 3Ph) : 2 nos.
- c) Extension of 765/400/220 kV Fatehpur Substation
220 kV
Line Bays : 2 nos.

d) The details of the petitions covering transmission assets under this project are as follows:

Sl. No.	Assets	COD (Actual)	Petition No.
1	1 no. 400 kV Line bay (at POWERGRID, Sikar end) along with 50 MVAR Non- Switchable line reactor for Ckt-I of 400 kV D/C Bikaner (RVPNL)-Sikar (PG) line	2.12.17 (Actual)	161/TT/2018
2	1 no. 400 kV Line bay (at POWERGRID, Sikar end) along with 50 MVAR Non- Switchable line reactor for Ckt-II of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line,	3.12.17 (Actual)	
3	02 Nos. 220 kV Line bays at 765/400/220 kV Fatehpur Sub-station	28.5.2018	86/TT/2019
4	02 Nos. 400 kV Line bays of 400 kV D/C Barmer (RRVNL)-Bhinmal (PG) line at Bhinmal Sub-station	23.5.2019	Instant petition

e) The transmission asset was scheduled to be put into commercial operation within 24 months from the date of investment approval i.e. 29.3.2017. Accordingly, the scheduled COD was 28.3.2019. The transmission asset was put into commercial operation on 23.5.2019. Thus, there is a time over-run of 55 days.

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



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	39.16	48.64	50.63	50.63	50.63
Interest on Loan	36.68	41.50	39.12	35.03	30.91
Return on Equity	37.53	46.74	48.61	48.61	48.61
O&M Expenses	4.11	4.97	5.09	5.14	5.17
Interest on Working Capital	55.16	66.56	68.90	71.32	73.82
Total	172.64	208.41	212.35	210.73	209.14

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	5.36	5.55	5.74	5.94	6.15
Maintenance Spares	9.65	9.98	10.34	10.70	11.07
Receivables	24.74	25.69	26.18	25.98	25.72
Total	39.75	41.22	42.26	42.62	42.94
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	4.11	4.97	5.09	5.14	5.17

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

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

8. The hearing in this matter was held on 27.10.2022 and the order in the matter was reserved.



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

Date of Commercial Operation

10. The Petitioner's prayer for approval of COD of the transmission asset under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations was not approved by the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019. The COD of the transmission assets was approved as 23.5.2019. The relevant paragraph of the order dated 21.2.2021 is as follows:

"22. The Petitioner In the present case, we do not find that RRVPNL's actions led to delay in COD of the Asset-II and rather it was for lack of coordination between the Petitioner and RRVPNL that such a situation has come up. Therefore, we are not inclined to approve COD of the Asset-II under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations."

23. Accordingly, taking into consideration CEA energisation certificate dated 7.9.2018, RLDC charging certificate dated 25.6.2019 in accordance with Regulation 6.3(A)(5) of the Grid Code, COD of Asset-II is approved as 23.5.2019. As COD of Asset-II falls under 2019-24 tariff period, the Petitioner is directed file fresh petition under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019. Accordingly, tariff in respect of Asset-I only is being allowed in the instant petition".

11. 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.”

12. The Petitioner has submitted CEA Energisation Certificate dated 7.9.2018 for Energizing Electrical Installations under Regulation 43 of the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010 (as amended to date), NRLDC Idle Charging Certificate dated 25.6.2019 for



successful completion of trial operation and CMD Certificate dated 15.4.2021. Taking into consideration of CEA Energisation Certificate, RLDC Charging Certificate and CMD Certificate as required under Grid Code, the COD of the transmission asset has been re-affirmed as 23.5.2019.

Capital Cost

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

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

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

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



station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

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

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

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

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and



- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

14. The Petitioner has claimed actual expenditure incurred up to COD and Additional Capital Expenditure (ACE) projected to be incurred from COD to 31.3.2021. Further, the details of capital cost incurred up to COD and projected to be incurred during 2019-20 and 2020-21 as duly certified vide Auditor’s Certificate dated 20.5.2021 are as follows:

(₹ in lakh)

FR Apportioned Approved Cost	Expenditure up to COD	Projected ACE		Estimated Completion Cost (as on 31.3.2024)
		2019-20	2020-21	
1280.82	758.69	31.91	66.34	856.94

15. The estimated completion cost of the transmission asset based on the Auditor’s Certificate works out to be ₹856.94 lakh including IEDC and IDC which is within the FR apportioned approved cost of ₹1280.82 lakh. Therefore, there is no cost over-run.

Time Over-run

16. As stated above, the SCOD of the transmission asset was 29.3.2019. The COD of the transmission asset has been approved as 23.5.2019 vide order dated 21.2.2021 in Petition No. 86/TT/2019. Accordingly, there is time over-run of 55 days in case of the transmission asset. The Petitioner has submitted that the time over-run is mainly due to the non-completion of work under the scope of RRVPNL. In support of its claim, the Petitioner has submitted the following chronology of events:

Sl. No.	Letter/ Email Date	Letter/ Email by	Description
1	8.2.2018	PGCIL	Email enquiring target for completion of line
2	15.2.2018	RRVPNL	Reply of letter dated 8.2.2018; Informed tentative completion date of line – July, 2018.
3	6.9.2018	PGCIL	a) Intimation of tentative date for charging of Barmer bays at Bhinmal Sub-station as 13.9.2018.



Sl. No.	Letter/ Email Date	Letter/ Email by	Description
			b) Request to provide status of line.
4	14.9.2018	PGCIL	a) Intimation regarding successful commissioning of Barmer bays at Bhinmal on 12.9.2018. b) Request to provide status of line.
5	28.9.2018	RRVPNL	Reply of letter dated 14.9.2018; Tentative completion date of line changed from July, 2018 to 15.1.2019 and requested to arrange necessary approval from higher authority.
6	28.1.2019	PGCIL	Email for compliance of queries raised for termination approval.
7	31.1.2019	PGCIL	Email-Reminder-1 for compliance of queries raised for termination approval.
8	7.2.2019	RRVPNL	Reply of Email dated 28.1.2019 & 31.1.2019 and submission of compliance report.
9	18.2.2019	RRVPNL	Intimation of tentative date for charging of Barmer bays at Bhinmal Sub-station and informed that due to pending Pile foundation - the tentative charging date delayed to 1 st week of April-2019. The date changed from July, 2018 to 15.1.2019 to 1 st week of April-2019.
10	18.2.2019	RRVPNL	Email for profile submission.
11	27.3.2019	PGCIL	Approval granted for work termination.
10.	2.4.2019	RRVPNL	Completion of termination work on 2.4.2019 at Bhinmal Sub-station and Intimation of tentative date for charging of Barmer bays at Bhinmal Sub-station. The tentative charging date postponed to 2 nd week of April-2019 from 1 st week of April-2019.
11	26.4.2019 28.4.2019 1.5.2019 9.5.2019 10.5.2019	RRVPNL	For end-to-end testing of 400 kV D/C Barmer-Bhinmal line and speech work.

17. We have considered the submissions of the Petitioner. It has been observed that RRVPNL vide letters dated 28.9.2018 and 18.2.2019 requested the Petitioner for granting permission for termination of 400 kV D/C Barmer (RRVPNL)-Bhinmal (PG) Line being implemented by RRVPNL and the Petitioner vide letter dated 27.3.2019 has granted approval for termination of 400 kV Barmer lines at Bhinmal Sub-station gantry of PGCIL. However, it is observed that RRVPNL vide letter dated 18.2.2019 has submitted that pile foundation work was still under progress



and the line is anticipated to be charged in the first week of April, 2019. The relevant portion of RRVPNL's letter dated 18.2.2019 is as follows:

"On the above cited subject it is submitted that the 400 KV D/C Barmer- Bhinmal line is carried out by this division. Construction work of 400 KV D/C Barmer-Bhinmal Line almost completed except Pile Foundation Work. Presently the Pile Foundation work is going on. The Tentative Date for charging the 400 KV D/C Barmer- Bhinmal Line may be in the first week of April-2019.

So you are hereby requested to issue necessary direction for termination work of 400 KV D/C Barmer-Bhinmal Line at the Gantry of 400 KV GSS, PGCIL, Bhinmal and arrange to take necessary approval from your higher authority. All the relevant documents already submitted to your good office personally."

18. RRVPNL vide letter dated 2.4.2019 informed that tentative date of charging of the transmission asset in the second week of April, 2019. The relevant portion of RRVPNL's letter dated 2.4.2019 is as follows:

"On the above cited subject it is submitted that the 400 KV D/C Barmer-Bhinmal line is carried out by this division. The termination work up to Gantry at 400 KV GSS, PGCIL, Bhinmal for 400 KV D/C Barmer-Bhinmal Line has been completed Today and Construction work of 400 KV D/C Barmer-Bhinmal Line almost completed. The Tentative Date for charging the 400 KV D/C Barmer-Bhinmal Line may be in the Second week of April-2019.

So you are hereby requested to take necessary approval from the competent authority for charging the above said line under intimation to this office."

19. Further, RRVPNL in its e-mail dated 9.5.2019, informed that representatives of GET&D will attend 400 kV GSS, PGCIL, Bhinmal for Hotline Speech and RSI Speech work of 400 kV D/C Barmer Bhinmal line for testing works and they may be allowed.

20. On consideration of CEA Energisation Certificate dated 7.9.2018, we find that the Petitioner was ready for charging on 7.9.2018. From the perusal of letter dated 18.2.2019 of RRVPNL addressed to the Chief Manager, Powergrid, Bhinmal, RRVPNL informed the Petitioner about the tentative date for charging of the 400 kV D/C Barmer-Bhinmal line may be in the first week of April, 2019. RRVPNL through its letter dated 2.4.2019, apprised the Chief Manager, Powergrid, Bhinmal about shifting of the tentative date of charging of 400 kV D/C



Barmer-Bhinmal line to second week of April, 2019. Thereafter, Executive Engineer (T&C), RVPN informed the Petitioner that representatives of GE T&D would attend 400 kV GSS, PGCIL, Bhinmal for Hotline Spech and RSI Speech work of 400 kV D/C Barmer line and they were to be allowed for the purpose of testing works. On combined reading of the CEA Energisation Certificate dated 7.9.2018 and letters of RRVPNL, it is clear that the Petitioner was ready before hand and the time over-run in execution of the transmission asset from SCOD to the COD of the transmission asset i.e. from 28.3.2019 to 23.5.2019 (55 days) cannot be attributable to the Petitioner. Accordingly, we condone time over-run of 55 days in respect of the transmission asset and the same is summarized as follows:

SCOD	COD	Time over-run	Time over-run condoned
29.3.2019	23.5.2019	55 days	55 days

Interest During Construction (IDC)

21. The Petitioner has claimed IDC of ₹25.84 lakh in respect of the transmission asset and has submitted the Auditor’s Certificate dated 20.5.2021 in support of the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

22. The loan details submitted in Form-9C for 2019-24 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on cash basis and accrual basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. Further, adjustment on account of time over-run has been made to arrive at the admissible IDC.



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

(₹ in lakh)					
IDC as per Auditor's Certificate	IDC allowable	IDC disallowed due to computational difference	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC discharged during 2019-20
A	B	C=A-B	D	E=B-D	F
25.84	25.84	0.00	23.36	2.48	2.48

Incidental Expenditure During Construction (IEDC)

24. The Petitioner has submitted that the entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and is paid up to COD. The Petitioner has claimed an IEDC of ₹26.89 lakh.

25. We have considered the submissions of the Petitioner and note that IEDC of ₹26.89 lakh has been claimed by the Petitioner and in support of the Petitioner has filed Auditor's Certificate. The entire IEDC of ₹26.89 lakh has been discharged as on COD in respect of the transmission asset. Accordingly, IEDC of ₹26.89 lakh is allowed.

Initial Spares

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

“23. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, subject to the following ceiling norms:

....

(d) *Transmission system*

(i) *Transmission line - 1.00%*

(ii) *Transmission Sub-station*

- *Green Field - 4.00%*

- *Brown Field - 6.00%*

(iii) *Series Compensation devices and HVDC Station - 4.00%*

(iv) *Gas Insulated Sub-station (GIS)*

- *Green Field - 5.00%*

- *Brown Field - 7.00%*

(v) *Communication system - 3.50%*



(vi) Static Synchronous Compensator - 6.00%

27. The Petitioner has claimed the following Initial Spares:

Particulars	Plant & Machinery Cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Ceiling (in %)
Sub-station	647.07	27.90	6.00
PLCC	157.14	4.58	3.50

28. The Petitioner has claimed Initial Spares on PLCC under communication system separately.

29. The details of discharge of Initial Spares claimed by the Petitioner as submitted in Form 13 are as follows:

(₹ in lakh)					
As on COD	2019-20	2020-21	2021-22	2022-23	2023-23
23.15	0.98	8.35	0.00	0.00	0.00

30. We have considered the submissions of the Petitioner. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Form 5 under Part-III of the 2019 Tariff Regulations requires a transmission licensee to provide "Element-wise Break-up of Project/ Asset/ Element Cost for Transmission System or Communication System". The details which are required to be furnished with regard to (a) transmission line are: preliminary works, transmission lines material, taxes and duties; (b) for sub-stations: preliminary works and land, civil works, sub-station equipment, spares, taxes and duties; and for (c) communication system: preliminary works, communication system equipment, taxes and duties. PLCC is a part of sub-station equipment at Sl. No. 6.5 of Form 5 under the head 'Sub-



station equipment” and that there is no mention about PLCC under communication system.

31. Therefore, we are not inclined to grant Initial Spares separately towards PLCC under communication system since Initial Spares claimed towards PLCC are included in the Sub-station.

32. Initial Spares allowed in respect of the transmission asset are as follows:

Particulars	Plant & Machinery Cost up to cut-off date	Allowable Initial Spares	Ceiling limit	Initial Spares allowed	Discharge of Initial Spares as on COD		
	(excluding IDC and IEDC)	(₹ in lakh)	(in %)	(₹ in lakh)	(₹ in lakh)		
	(₹ in lakh)				As on COD	2019-20	2020-21
Sub-station	804.21	32.48	6	32.48	23.15	0.98	8.35

Capital Cost allowed as on COD

33. In view of the above, the capital cost in respect of the transmission asset allowed (as on COD) is summarized as follows:

(₹ in lakh)				
Capital Cost claimed in Auditor's Certificate (as on COD)	Less: Un-discharged IDC (as on COD)	Less: Excess Initial Spares	Less: IEDC	Capital Cost (as on COD)
A	B	C	D	E= A-B-C-D
758.69	2.48	0.00	0.00	756.21

Additional Capital Expenditure

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

“24. Additional Capitalisation within the original scope and upto the cut-off date

(1) The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the



original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (a) Undischarged liabilities recognized to be payable at a future date;
- (b) Works deferred for execution;
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

Provided that in case of any replacement of the assets, the additional 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.”

35. Based on the Auditor's Certificate dated 20.5.2021, details of the ACE claimed by the Petitioner are as follows:

(₹ in lakh)

Year	Particulars	Land	Building	Transmission Line	Sub-station	PLCC	IT Equipment and Software	Total
2019-20	ACE	0.00	0.00	0.00	27.26	3.58	1.07	31.91
2020-21	ACE	0.00	0.00	0.00	54.96	6.99	4.39	66.34

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

37. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner is allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations, which are as follows:



Particulars	ACE	
	2019-20	2020-21
ACE to the extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	31.91	66.34
Add: Un-discharged of IDC as on COD	2.48	0.00
Total	34.39	66.34

Capital Cost for the 2019-24 tariff period

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

Capital Cost (as on COD)	ACE allowed		Capital Cost allowed as on 31.3.2024
	2019-20	2020-21	
756.21	34.39	66.34	856.94

Debt-Equity Ratio

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

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

Provided that:

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

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

Funding	Capital Cost (₹ in lakh) (as on COD)	(in %)	Capital Cost (₹ in lakh) (as on 31.3.2024)	(in %)
Debt	529.35	70.00	599.86	70.00
Equity	226.86	30.00	257.08	30.00
Total	756.21	100.00	856.94	100.00

Depreciation

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

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



consideration the depreciation of individual units:

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

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

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

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

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

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

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

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

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

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

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

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



approve the depreciation on capital expenditure.

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

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

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

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

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

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

42. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after considering the depreciation rates of IT and non-IT assets as specified in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. The depreciation allowed for the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

	Particulars	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	756.21	790.60	856.94	856.94	856.94
B	Addition during the year 2019-24 due to projected ACE	34.39	66.34	0.00	0.00	0.00
C	Closing Gross Block (A+B)	790.60	856.94	856.94	856.94	856.94
D	Average Gross Block (A+C)/2	773.41	823.77	856.94	856.94	856.94



	Particulars	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
E	Average Gross Block (90% depreciable assets)	741.09	788.68	819.65	819.65	819.65
F	Average Gross Block (100% depreciable assets)	32.31	35.09	37.29	37.29	37.29
G	Depreciable value (excluding IT equipment and software) (E*90%)	666.98	709.81	737.69	737.69	737.69
H	Depreciable value of IT equipment and software	32.31	35.09	37.29	37.29	37.29
I	Total Depreciable Value (G+H)	699.30	744.90	774.97	774.97	774.97
J	Weighted average rate of Depreciation (WAROD) (in %)	5.90	5.90	5.91	5.91	5.91
K	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	2.00	3.00
L	Balance useful life at the beginning of the year (Year)	22.00	22.00	21.00	20.00	19.00
M	Depreciation during the year(D*J)	39.16	48.63	50.64	50.64	50.64
N	Aggregate Cumulative Depreciation at the end of the year	39.16	87.80	138.43	189.07	239.70
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	660.13	657.11	636.54	585.91	535.27

Interest on Loan (IoL)

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

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

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

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

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



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

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

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

(5 a) 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.”

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

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

(₹ in lakh)



	Particular	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	529.35	553.42	599.86	599.86	599.86
B	Cumulative Repayments up to Previous Year	0.00	39.16	87.80	138.43	189.07
C	Net Loan-Opening (A-B)	529.35	514.26	512.06	461.43	410.79
D	Addition due to Additional Capitalization	24.07	46.44	0.00	0.00	0.00
E	Repayment during the year	39.16	48.63	50.64	50.64	50.64
F	Net Loan-Closing (C+D-E)	514.26	512.06	461.43	410.79	360.16
G	Average Loan (C+F)/2	521.80	513.16	486.75	436.11	385.48
H	Weighted Average Rate of Interest on Loan (%)	8.207	8.115	8.066	8.064	8.055
I	Interest on Loan (G*H)	36.74	41.64	39.26	35.17	31.05

Return on Equity (RoE)

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

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

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

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 7 account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;



- iii. in case of a thermal generating station, with effect from 1.4.2020:
- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

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

Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;



- (b) *Estimated Advance Tax for the year on above is Rs 240 crore;*
(c) *Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;*
(d) *Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.*

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

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



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

(₹ in lakh)						
	Particulars	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	226.86	237.18	257.08	257.08	257.08
B	Addition due to Additional Capitalization	10.32	19.90	0.00	0.00	0.00
C	Closing Equity (A+B)	237.18	257.08	257.08	257.08	257.08
D	Average Equity (A+C)/2	232.02	247.13	257.08	257.08	257.08
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	37.39	46.42	48.28	48.28	48.28

Operation & Maintenance Expenses (O&M Expenses)

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

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (Rs Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (Rs Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs Lakh per km)					
Single Circuit (Bundled Conductor with six or more	0.881	0.912	0.944	0.977	1.011



sub-conductors)					
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh)(3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- (i) the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- (ii) the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- (iii) the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2500 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- (iv) the O&M expenses of ±800 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
- (v) the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays,



transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

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

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

50. O&M Expenses claimed by the Petitioner are within the norms specified under the 2019 Tariff Regulations. O&M Expenses allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)

Combined Asset					
Sub-station					
SI. No.	400 kV Sub-station bay				
1	Jetpur/ Bhinmal: Line Bays				
O&M Expenses					
Particulars	2019-20 (pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
Sub-station					
400 kV					
Number of bays	2	2	2	2	2
Norms (₹ lakh/ Bay)	32.15	33.28	34.45	35.66	36.91
Total O&M Expenses allowed (₹ in lakh)	55.16	66.56	68.90	71.32	73.82

Interest on Working Capital

51. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as follows:

“34. **Interest on Working Capital:** (1) The working capital shall cover:

.....

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



(i) Receivables equivalent to 45 days of annual fixed cost;

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

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

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

“(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3. Definitions ...

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

52. The Petitioner has submitted that it has computed the IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24 onwards. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)

	Particulars	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O & M	5.36	5.55	5.74	5.94	6.15



	Expenses (O&M expenses for 1 month)					
B	Working Capital for Maintenance Spares (15% of O&M expenses)	9.65	9.98	10.34	10.70	11.07
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	24.73	25.63	26.08	25.88	25.61
D	Total of Working Capital	39.73	41.16	42.15	42.52	42.84
E	Rate of Interest for Working Capital (%)	12.05	11.25	10.50	10.50	10.50
F	Interest of working capital	4.11	4.63	4.43	4.46	4.50

Annual Fixed Charges for the 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	39.16	48.63	50.64	50.64	50.64
Interest on Loan	36.74	41.64	39.26	35.17	31.05
Return on Equity	37.39	46.42	48.28	48.28	48.28
Operation and Maintenance	55.16	66.56	68.90	71.32	73.82
Interest on Working Capital	4.11	4.63	4.43	4.46	4.50
Total	172.56	207.88	211.51	209.87	208.29



Filing Fee and Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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

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



Security Expenses

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

59. 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 the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, the security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

60. 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

61. With effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short "the 2020 Sharing Regulations"). Accordingly, the liabilities of DICs for arrears, if any, of the transmission charges determined through this order shall be computed DIC-wise in accordance with the



provisions of respective sharing Regulations and shall be recovered from the concerned DICs under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection, and disbursement of transmission charges for subsequent period shall be recovered in terms of the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

62. To summarise:

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

(₹ in lakh)				
2019-20 (Pro-rata for 314 days)	2020-21	2021-22	2022-23	2023-24
172.56	207.88	211.51	209.87	208.29

63. Annexure-I given hereinafter shall form part of the order.

64. This order disposes of Petition No. 8/TT/2022 in terms of the above discussions and findings.

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



2019-24

Annexure-I

Asset

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-24					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28	0.00	0.00	0.00	0.00	0.00
Sub Station	567.49	29.13	54.96	0.00	0.00	0.00	651.58	5.28	30.73	32.95	34.40	34.40	34.40
PLCC	157.00	4.09	6.99	0.00	0.00	0.00	168.08	6.33	10.07	10.42	10.64	10.64	10.64
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34	0.00	0.00	0.00	0.00	0.00
IT Equipment & Software	31.73	1.17	4.39	0.00	0.00	0.00	37.29	15.00	4.85	5.26	5.59	5.59	5.59
Total	756.21	34.39	66.34	0.00	0.00	0.00	856.94		45.65	48.63	50.64	50.64	50.64
Weighted Average Rate of Depreciation (%)									5.90	5.90	5.91	5.91	5.91
Average Gross Block (₹ in lakh)									773.41	823.77	856.94	856.94	856.94

