

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 163/TT/2018

Coram:

Shri P. K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I. S. Jha, Member

Date of Order: 29.05.2019

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for Asset-I Modification of 132 kV bus arrangement including switchgear to Double Main (DM) scheme with GIS at 220/132 kV Birpara Sub-station under Eastern Region Strengthening Scheme XIV in Eastern Region.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001

.....Petitioner

Vs

1. Bihar State Electricity Board,
Vidyut Bhawan, Bailey Road, Patna – 800 001.
2. West Bengal State Electricity Distribution Company Ltd.,
Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II,
Salt Lake City, Culcatta – 700 091.
3. Grid Corporation of Orissa Ltd.,
Shahid Nagar, Bhubaneswar – 751 007.
4. Damodar Valley Corporation,
DVC Tower, Maniktala, Civic Centre, VIP Road, Calcutta – 700 054.
5. Power Department,
Government of Sikkim, Gangtok – 737 101.



6. Jharkhand State Electricity Board,
Doranda, Ranchi – 834 002.

.....Respondents

Parties present : Shri S. K. Venkatesan, PGCIL
Shri S. S. Raju, PGCIL
Shri S. K. Niranjana, PGCIL
Shri Vivek Kumar Singh, PGCIL
Shri Amit Yadav, PGCIL
Shri Zafrul Hasan, PGCIL
Shri R. B. Sharma, Advocate, BSPHCL
Shri Mohit Mudgal, Advocate, BSPHCL

ORDER

The petitioner, Power Grid Corporation of India Limited (hereinafter referred to as "PGCIL") has filed the instant Petition for approval of transmission tariff, from COD to 31.03.2019, for modification of 132 kV bus arrangement including switchgear to Double Main (hereinafter referred to as "DM") scheme with GIS at 220/132 kV Birpara Sub-station under Eastern Region Strengthening Scheme XIV in Eastern Region (hereinafter referred to as "the instant asset"), in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

2. The petitioner was entrusted with the implementation of Eastern Region Strengthening Scheme XIV (hereinafter referred to as "project"). The petitioner has submitted that the scheme was discussed and agreed in the 1st Meeting of Standing Committee (hereinafter referred to as "SCM") on Power System Planning in ER held on 2.5.2014 and 27th ERPC meetings held on 30th & 31st May 2014.

3. The Investment Approval (hereinafter referred to as "IA") for implementation of the project was accorded by the Board of Directors of the petitioner company in its



328th meeting held on 5.5.2016 (communicated vide Memorandum Ref.: C/CP/ERSS-XIV dated 9.5.2016), at an estimated cost of ₹167.01 Crores including IDC of ₹10.09 Crores, based on October, 2015 price level. As per IA, the project was scheduled to be commissioned within 30 months from the date of IA. Accordingly, the scheduled date of commercial operation (hereinafter referred to as "SCOD") of the project / instant asset is 05.11.2018.

4. The scope of work covered under the project as per IA is as follows:

Substations:

(i) Reactive Compensation at 400 kV Sub-stations:

- Installation of 1X125 MVAR bus Reactor at Banka;
- Installation of 1X125 MVAR bus Reactor at Bolangir;
- Installation of 1X125 MVAR bus Reactor at Lakhisarai;
- Installation of 1X125 MVAR bus Reactor at Chaibasa;
- Installation of 1X125 MVAR bus Reactor at Keonjhar;
- Installation of 1X125 MVAR bus Reactor at Durgapur;
- Installation of 1X125 MVAR bus Reactor at Baripada with GIS bay.

(ii) Modification of 132 KV bus arrangement including switchgear to DM scheme with GIS at 220/132 kV Birpara Sub-station.

5. The instant Petition covers following asset:

Name of Assets	COD
Modification of 132 KV bus arrangement including switchgear to DM scheme with GIS at 220/132 kV Birpara Sub-station.	31.10.2017

6. Annual Fixed Charges (hereinafter referred to as "AFC") was allowed by the Commission for the instant asset vide order dated 21.12.2018 under Regulation 7(7)



of the 2014 Tariff Regulations for inclusion in the PoC computation as under:

(₹ in lakh)	
2017-18 (pro-rata)	2018-19
95.44	306.67

7. The details of the transmission charges claimed by the petitioner are as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata)	2018-19
Depreciation	35.70	116.39
Interest on Loan	34.40	107.02
Return on Equity	39.78	129.68
Interest on Working Capital	2.40	7.70
O&M Expenses	0.00	0.00
Total	112.28	360.79

8. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Bihar State Power (Holding) Company Ltd. (hereinafter referred to as "BSPHCL") vide its affidavit dated 30.1.2019 and the petitioner vide its affidavit dated 20.2.2019 filed its rejoinder in the matter.

9. The Petition was heard on 28.2.2019 and the Commission reserved the order in the Petition.

10. Based on the documents available on record and after considering the submission of the petitioner, we dispose of the claim of the petitioner in the instant Petition in terms of the provisions of the 2014 Tariff Regulations, as stated in the subsequent paragraphs.

Date of Commercial operation



11. The petitioner has claimed date of commercial operation of the instant asset as 31.10.2017 and has also submitted the self declaration letter of commercial operation dated 6.11.2017, RLDC certificate dated 4.12.2017 regarding completion of trial operation of transmission element, CEA certificate dated 20.10.2017, as required under Regulation 43 of CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 and CMD certificate as required under Grid Code in support of its claim. Accordingly, taking into consideration the RLDC certificate, CEA certificate and CMD certificate, the COD of the instant asset is approved as 31.10.2017.

Time over-run

12. As stated above, the SCOD of the instant asset is 05.11.2018 and COD of the instant asset is 31.10.2017. Accordingly, there is no time over-run.

Capital Cost

13. The details of capital cost claimed by the petitioner in terms of the Auditor's certificate dated 07.12.2017 as on COD (i.e. 31.10.2017) along with the actual / estimated additional capital expenditure incurred / to be incurred for the instant asset is summarized below:

(₹ in lakh)

Apportioned approved cost	Expenditure up to COD	Estimated expenditure			Estimated completion cost
		2017-18	2018-19	2019-20	
2675.19	1176.54	900.00	269.85	200.00	2546.39

14. According to the Auditor's certificate, the expenditure upto 31.3.2017 is verified and is in accordance with the books of accounts of PGCIL and the expenditure for the period from 1.4.2017 to 31.10.2017 (i.e. COD) is in accordance with the books of



accounts of ERTS-II. In this regard the petitioner is hereby directed to furnish a revised Auditor certificate in respect of its capital cost claim, strictly in accordance with the audited books of accounts of PGCIL, as on COD, at the time of truing up.

15. The petitioner has claimed capital cost of ₹1162.26 lakh as on COD. The break-up of the claimed capital cost is as under:

(₹ in lakh)

Particulars	Capital cost claimed (on accrual basis) (A)	Un-discharged Liabilities (B)	Capital cost claimed (on cash basis) (C = A-B)
Hard Cost	2063.67	922.33	1141.34
IDC	32.28	14.28	18.00
IEDC	2.92	0.00	2.92
Total	2098.87	936.61	1162.26

16. Thus, the claimed capital cost before IDC and IEDC works out to ₹1141.34 lakh, on cash basis.

Cost over-run

17. The total estimated completed cost of the instant asset, as stated above, ₹2546.39 lakh as against the apportioned approved cost of ₹2675.19 lakh. Hence, there is no cost over-run in the commissioning of the instant asset.

Treatment of IDC and IEDC

18. The petitioner has claimed Interest during Construction (IDC) of ₹32.28 lakh on accrual basis and ₹18.00 on cash basis, for the instant asset. The petitioner has submitted the discharge details of IDC as under:

(₹ in lakh)

IDC as per Auditor certificate	IDC discharged		
	upto COD	2017-18	2018-19
32.28	18.00	0.00	14.28



19. The petitioner's claim for IDC has been examined and it is observed that petitioner has claimed IDC corresponding to drawls amounting to ₹823.58 lakh upto COD of the instant asset. Considering the details of loans as submitted in the petition the admissible IDC, as on COD, works out to ₹32.28 lakh on accrual basis and ₹18.00 lakh on cash basis, the same has been considered for the purpose of tariff.

20. The petitioner has claimed IEDC of ₹2.92 lakh for the instant asset upto COD. However, as per the statement showing "Abstract of Cost" corresponding to IA, IEDC as a percentage of accorded capital cost (before IDC, IEDC and FERV) is 10.75%, in line with the prevailing practice, the same has been considered as ceiling limit for working out the admissible IEDC. Accordingly, the admissible IEDC works out to ₹2.92 lakh.

Treatment of initial spares

21. The petitioner has claimed initial spares amounting to ₹165.50 lakh upto COD of instant asset which works out to 6.59% of the total estimated completion cost. However, as the tariff in the instant petition is being allowed only upto 31.3.2019 accordingly, for the purpose of tariff initial spares has been worked out considering admissible plant and machinery cost, upto 31.3.2019, amounting to ₹2311.19 lakh (excluding IDC, IEDC, land cost and cost of civil works). Considering the ceiling limits of 5% as specified under the 2014 Tariff Regulations, the admissible initial spares work out to ₹115.56 lakh, the same has been considered for the purpose of tariff. The admissibility of the disallowed initial spares amounting to ₹49.94 lakh will be considered during the tariff period 2019-24, based on the admissible ACE for the



year 2019-20.

Capital cost as on COD

22. The details of the capital cost considered as on COD after adjustment of IDC, IEDC, cost over-run and initial spares is as under:

(₹ in lakh)

Capital cost as on COD (on accrual basis) (A)	Items disallowed (B)				Items corresponding to admitted capital cost as on COD (C)		Capital cost allowed as on COD (D=A-B-C)
	IDC #	IEDC	Cost over-run	Initial Spares	Un-discharged IDC	Balance & retention payments	
2098.87	0.00	0.00	0.00	49.94	14.28	922.33	1112.32

23. Further, the petitioner is directed to certify, at the time of truing up, that there is no de-capitalisation / replacement of any asset on account of present scope of work covered in the instant petition.

Additional capital expenditure

24. The details of additional capital expenditure (hereinafter referred to as "ACE") on actual / projected basis as claimed by the petitioner under Regulation 14(1) of 2014 Tariff Regulations are as under:

(₹ in lakh)

Particulars	2017-18	2018-19
ACE to the extent of unexecuted work	0.00	247.52
Discharges of un-discharged IDC as on COD	0.00	14.28
Discharges towards balance & retention payments	900.00	22.33
ACE claimed	900.00	284.13

Note: The petitioner has stated that projected ACE for the year 2019-20 is ₹200.00 lakh. However, as the tariff in the instant petition has been claimed only upto 31.3.2019, the ACE details for the year 2019-20 has been ignored for the purpose of tariff and will be dealt during the next tariff period, based on the then prevailing Tariff Regulations and corresponding claim by the petitioner.

25. The ACE claimed by the petitioner for the instant asset is on the account of



works deferred for execution, balance and retention payments and discharges of un-discharged liabilities corresponding to IDC and is well within the approved apportioned cost as well as the cut-off date. Accordingly, the ACE allowed, subject to truing up, for the period 2018-19 is as under:

Particulars	(₹ in lakh)	
	2017-18	2018-19
ACE to the extent of unexecuted work	0.00	247.52
Discharges of un-discharged IDC as on COD	0.00	14.28
Discharges towards balance & retention payments	900.00	22.33
ACE claimed	900.00	284.13

26. However, petitioner is directed to furnish detail like name of asset/work, date of start and completion of work, quarter-wise expenditure incurred for the said work etc. pertaining to "ACE to the extent of unexecuted work" at the time of truing up.

Capital cost for the tariff period 2014-19

27. Accordingly, the capital cost considered for the tariff period 2014-19, subject to truing up, is as under:

Particulars	(₹ in lakh)	
	2017-18	2018-19
Opening Capital Cost	1112.32	2012.32
Add: ACE	900.00	284.13
Closing Capital Cost	2012.32	2296.45
Average Capital Cost	1562.32	2154.39

Debt-Equity Ratio

28. The petitioner has claimed debt-equity ratio of 70:30 for the instant asset for the tariff period 2014-19. However, considering the details of debt as has been used for calculation of IDC the debt-equity ratio as on COD works out to 70.86:29.14, the same is allowed subject to truing up. Further, for the purpose of ACE, debt-equity of 70:30 has been considered, subject to truing up. The details of (gross) debt and



equity considered, subject to truing up, is as under:

(₹ in lakh)

Particulars	%	As on COD	As on 31.03.2019
Debt	70.00	788.20	1617.09
Equity	30.00	324.13	679.37
Total	100.00	1112.32	2296.45

Return on equity

29. The petitioner has claimed RoE considering rate of 19.61% after grossing up the RoE of 15.5% with MAT rate of 20.961%. The petitioner also submitted that the grossed up RoE is subject to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

30. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable / adjustable after completion of income tax assessment of the financial year.

31. We have considered the submission of the petitioner. ROE has been computed at the rate of 19.610% for the period 2014-19 after grossing up the ROE with MAT rate in terms of the above Regulations. Regulation 24 read with Regulation 25 in the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying



Minimum Alternative Tax (MAT), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity. This is however subject to truing up based on the actual tax rate in accordance with Regulation 25 (3) in the 2014 Tariff Regulations. Accordingly, ROE has been allowed, subject to truing up, as under:

(₹ in lakh)		
Particulars	2017-18	2018-19
Opening Equity	324.13	594.13
Addition due to ACE	270.00	85.24
Closing Equity	594.13	679.37
Average Equity	459.13	636.75
Return on Equity (Pre-tax)	* 37.49	124.87

* pro-rata

Interest on loan

32. In terms of the provisions of Regulation 26 in the 2014 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated on the following basis:

- (i) Gross normative loan of ₹788.20 lakh has been considered as on COD.
- (ii) The gross opening loan as on COD as stated at Form-9C is at variance with the amount of loan used for computing the IDC as shown at "Statement showing IDC Discharged upto DOCO". Accordingly, for the present the weighted average rate of interest as claimed by the petitioner has been considered, subject to truing up, for the purpose of tariff.
- (iii) The normative repayment for the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for that period.

33. Based on the above, interest on loan has been calculated, subject to truing up, as under:



(₹ in lakh)

Particulars	2017-18	2018-19
Gross Normative Loan	788.20	1418.20
Cumulative Repayment upto previous Year	0.00	34.35
Net Loan-Opening	788.20	1383.84
Addition due to ACE	630.00	198.89
Repayment during the year	34.35	113.75
Net Loan-Closing	1383.84	1468.98
Average Loan	1086.02	1426.41
Weighted Average Rate of Interest	7.386%	7.385%
Interest on Loan	* 33.40	105.34

* pro-rata

Depreciation

34. The depreciation has been calculated annually based on Straight Line Method at the rates specified in **Appendix-II** in the 2014 Tariff Regulations. Based on the above, the depreciation has been considered and allowed, subject to truing up, as under:

(₹ in lakh)

Particulars	2017-18	2018-19
Average Capital Cost	1562.32	2154.39
Rate of Depreciation	5.28%	5.28%
Depreciable Value	1406.09	1938.95
Remaining Depreciable Value	1406.09	1904.60
Depreciation	* 34.35	113.75

* pro-rata

Operation and Maintenance Expenses (O&M Expenses)

35. The instant asset being modification of an existing asset the petitioner has not claimed any O&M Expenses in the instant petition. Accordingly, O&M Expenses has been considered as 'nil' for the purpose of tariff in the instant petition.

Interest on Working Capital (IWC)

36. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner's



entitlement to interest thereon are discussed hereunder:

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M expenses. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

O&M expenses have been considered for one month as a component of working capital.

(iv) Rate of interest on working capital

The petitioner has considered 12.80% (i.e. SBI Base Rate of 9.30% as on 5.10.2015 + 350 bps) as the rate of interest on working capital. However, in accordance with the provisions contained in Regulation 28 of the 2014 Tariff Regulations the rate of interest on working capital works out to 12.60% (i.e. SBI Base Rate of 9.10% as on 1.4.2017 + 350 bps), the same is considered for the purpose of tariff.

37. The interest on working capital, subject to truing up, has been worked out and allowed as under:

Particulars	₹ in lakh	
	2017-18	2018-19



Maintenance Spares	0.00	0.00
O&M expenses	0.00	0.00
Receivables	43.03	58.56
Total	43.03	48.56
Interest on Working Capital	* 2.26	7.38

* pro-rata

Annual Transmission charges

38. In view of the above, the transmission charges allowed for the instant asset is as under:

	(₹ in lakh)	
Particulars	2017-18 (pro-rata)	2018-19
Depreciation	34.35	113.75
Interest on Loan	33.40	105.34
Return on Equity	37.49	124.87
Interest on Working Capital	2.26	7.38
O&M Expenses	0.00	0.00
Total	107.51	351.33

Filing fee and the publication expenses

39. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 in the 2014 Tariff Regulations. 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 clause (1) of Regulation 52 in the 2014 Tariff Regulations.

License fee and RLDC Fees and Charges

40. The petitioner has prayed to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. We are of the view that the petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a) of Regulation 52 in the



2014 Tariff Regulations.

Goods and Services Tax

41. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. The petitioner has submitted that the Commission should allow recovering GST from the beneficiaries, if imposed on transmission charges under the proposed GST when implemented by Government of India. We are of the view that petitioner's prayer is premature.

Sharing of Transmission Charges

42. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time, as provided in Regulation 43 of the 2014 Tariff Regulations.

43. This order disposes of Petition No. 163/TT/2018.

Sd/-
(I. S. Jha)
Member

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(P. K. Pujari)
Chairperson

