

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 107/TT/2018

Coram:

Shri P. K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri Indu Shekar Jha, Member

Date of Order: 05.04.2019

In the matter of:

Approval under regulation-86 of CERC (Conduct of Business) Regulations'1999 and CERC (Terms and Conditions of Tariff) Regulations 2014 for determination of Transmission Tariff from DOCO to 31.03.2019 for communication system for DVC under Expansion/ Up gradation of SCADA/ EMS System of SLDCs of Eastern Region (BSPTCL & DVC).

And in the matter of:

Power Grid Corporation of India Limited

"Saudamini", Plot No.2,

Sector-29, Gurgaon -122 001

.....**Petitioner**

Vs

Damodar Valley Corporation

VC Tower, Maniktala

Civic Centre, Viproad, Calcutta - 700 054

.....**Respondent**

Present parties:

Shri S. K. Venkatesan, PGCIL

Shri S. S. Raju, PGCIL

Shri S.K. Niranjana, PGCIL

Shri Amit Yadav, PGCIL

ORDER

The present petition has been filed by the petitioner, Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff for 31 Nos OPGW links (1142.667 km) DVC under Expansion/ Up gradation of SCADA/ EMS System of



SLDCs of Eastern Region (DVC) (hereinafter referred to as “transmission system”) for 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “2014 Tariff Regulations”).

2. The petitioner has made the following prayer:

(i) Approve the Transmission Tariff for the tariff block 2014- 19 block for the asset covered under this petition.

(ii) Admit the capital cost as claimed in the petition and approve the Additional Capitalisation projected to be incurred.

(iii) Tariff may be allowed on the estimated completion cost, since few elements of the project are yet to be completed, the completion cost for the assets covered under instant Petition are within the overall project cost.

(iv) 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 under clause: 25 of the Tariff Regulations, 2014.

(v) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, expenditure on publishing of notices in newspapers in terms of Regulation: 52 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and other expenditure (if any) in relation to the filing of petition.

(vi) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation: 52 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014.

(vii) 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 2014- 19 period, if any, from the respondents.

(viii) Allow the Petitioner to bill and recover Service tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list at any time in future. Further, any



taxes and duties including cess etc. imposed by any statutory/Govt/municipal authorities shall be allowed to be recovered from the beneficiaries.

(ix) Allow the petitioner to bill and recover GST on Transmission charge separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt. Municipal Authorities shall be allowed to be recovered from the beneficiaries.

(x) Allow tariff up to 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for purpose of inclusion in the PoC charges.

(xi) Allow the petitioner to bill Tariff from actual DOCO 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. The Investment Approval (IA) for implementation of "Establishment of Communication system for DVC under Expansion/ Up gradation of SCADA/ EMS System of SLDCs of Eastern Region (BSPTCL & DVC)" was accorded by the Board of Directors of POWERGRID in its 313th meeting held on 17.04.2015 and the Memorandum issued on 24.04.2015 for ₹ 85.31 crore including an IDC of ₹ 5.82 crore based on December 2014 price level.

4. The scope of work covered in Investment Approval dated 24.04.2015 is as follows:

- i) Implementation of OPGW fibre optic cable on the EHV transmission line of constituents, the estimated length of such cable is approximately 1965 km.
- ii) Installation of 87 nos. of terminal equipment based upon Synchronous Digital Hierarchy (SDH) technology at substations of the constituents, 116 nos. of Multiplexers/D&I/DACS at wideband nodes and Network Management System (NMS).



iii) DC Power Supply- Presently envisaged at all the wideband locations where equipment are to be installed. However, the requirement shall be optimized during detailed engineering.

iv) Approach Cable for providing connectivity between OPGW and equipment.

5. The petitioner has submitted that the scope of the work was estimated as approximately 1965 km combined for both BSPTCL and DVC, out of which 1142.667 km has been executed till 10.10.2017 solely for DVC respondent and the remaining portion of the scope is for BSPTCL and it is yet to be commissioned. Accordingly, the instant petition covers the following communication assets pertaining to DVC constituents:-

SI	Name of Asset	Actual DOCO	Remarks
	Asset : Communication System for DVC constituents consisting 1142.667 km OPGW links on EHV Transmission line at 31 different locations and associated equipments (37 Nos of Synchronous Digital Hierachy), (8 Nos of Multiplexer) and (27 Nos. of DC Power Supply).	10.10.2017	Covered under instant petition.

The link wise details are listed below:-

OPGW fibre optic cable on EHV Transmission Line:

Sl.	Link	kM	Sl.	Link	kM
1	Howrah(DVC)-Belmuri	49.323	17	Putki – Nimlaghat	42.843
2	MTPS A- Barjora	17.245	18	Maithon-Patherdih	41.654
3	Durgapur(DVC) – Mejia	31.37	19	Ramgarh-Gola	25.542
4	Durgapur – Parulia	15.862	20	Gola-Chandil	100.919
5	DTPS – Jamuria	30.392	21	Chandil-Jamshedpur	38.325
6	DTPS – Kalipahari	38.683	22	Kharagpur-Mosabani	96.229
7	Burdwan – DTPS(Waria)	81.742	23	Nimiaghat-Giridih	40.368
8	Belmuri-Burdwan	49.737	24	Ramgarh-Patratu	22.964
9	DTPS(Waria)-ASP	3.636	25	Panchet Hydrel-Ramkanali	12.508
10	CTPS – Baida	11.882	26	Dhanpad-Giridih	44.384
11	CTPS – Purulia	55.364	27	Patherdigh-Sindri	4.996
12	Kolaghat – Kharagpur	67.108	28	Howrah(DVC) – Kolaghat	56.748
13	Jamshedpur – Mosabani	39.86	29	Patratu – Northkaranpura	32.101
14	Barhi – Hazaribag	35.293	30	LILO of Panchet-MHPS at Kumardubhi	0.55
15	Putki-CTPS	26.001	31	LILO of Kalyaneshwari-MTPS at Bumpur	8.3
16	Patherdih-Putki	20.738		TOTAL	1142.667



Associated Equipments

Sl.	Name of the asset	Qty
1	SDH (Synchronous Digital Hierarchy)	37
2	MUX (multiplexer)	08
3	DCPS (DC Power Supply)	27

6. Transmission Charges were granted for asset under instant petition vide order dated 05.11.2018 under the first proviso to Regulation 7(7) of the 2014 Tariff Regulations, for inclusion in the PoC charges.

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

(₹ in lakh)

Particulars	2017-18	2018-19
Depreciation	69.82	169.85
Interest on Loan	54.76	124.91
Return on Equity	64.89	157.86
Interest on Working Capital	4.06	9.71
O&M Expenses	0.00	0.00
Total	193.53	462.33

8. The details of the interest on working capital claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	2017-18	2018-19
Maintenance Spares	0.00	0.00
O&M expenses	0.00	0.00
Receivables	67.79	77.05
Total	67.79	77.05
Rate of Interest	12.60%	12.60%
Interest (Pro-rata)	4.06	9.71

9. The petitioner has served the petition to the respondents and notice of this application 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 notices published by the petitioner under Section 64 of the Electricity Act, 2003. No reply has been received from the respondent. Having heard the representatives of the petitioner present at the hearing and perused the



material on record, we proceed to dispose of the petition.

10. This order has been issued after considering the petition and affidavits dated 05.04.2018, 09.10.2018 and 22.11.2018 filled by the petitioner.

11. Date of Commercial Operation (“COD”)

The petitioner has submitted that the actual COD of the instant asset was 10.10.2017. In support of COD of the Asset-I, the petitioner has submitted self declaration COD certificate and the certificate issued by DVC. On the basis of the successful commissioning certificate, COD of the Asset has been considered as 10.10.2017.

12. Time over run:

As per the Investment Approval, the commissioning schedule of the project is 30 months from the date of Investment Approval. The date of Investment Approval is 24.04.2015 hence the asset is scheduled to be commissioned on 23.10.2017 against which the subject asset has been put under commercial operation on 10.10.2017. Hence there is no delay in commissioning of the asset.

13. Capital Cost

i) This has been dealt in line with Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations.

ii) The details of apportioned approved cost, capital cost as on COD and projected additional capital expenditure and the estimated completion cost of the instant assets as per Auditor Certificate dated 11.01.2018 are as follows:-

(₹ in lakh)

Asset Name	Apportioned Approved Cost as per FR	Cost as on DOCO	Projected Add Cap		Estimated Completion Cost
			2017-18	2018-19	
Asset	3333.55	2126.55	434.43	270.00	2830.98



iii) The capital cost certified by the Auditor is as per the audited books of account of Power grid, ERTS-II for the period up to 31.03.2017 and from 01.04.2017 to 24.10.2017 as per books of accounts of ERTS-II. The auditor further certified that the entire Additional capital expenditure are in accordance with the statement furnished by the Management of the company.

iv) It is difficult to reconcile the cost between the auditor certificate and the cost mentioned in Form- 4A and Form- 5 as the liability amount is not mentioned in auditor certificate. Therefore liability amount mentioned in tariff form 4A is relied upon to determine the allowable cost. The petitioner is directed to submit the Auditor certificate by clearly mentioning the liability amount and whether the certified cost is inclusive of liability or exclusive of liability at the time of true up of 2014-19 petitions.

14. Interest During Construction (IDC)

i) The petitioner has claimed IDC of ₹ 25.46 lakh for the instant asset and has submitted the Auditor's certificate in support of the same. The petitioner has submitted IDC computation statement which consist of the name of the loan, Drawl date, loan amount, interest rate and Interest claimed. The IDC worked out based on the details given in the IDC statement. Further the Loan amount as on COD has been mentioned in Form 6 and Form 9C. While going through these documents certain discrepancies have been observed such as mismatch in loan amount between IDC statement and in Form 6 & Form 9C. The allowable IDC has been worked out based on the available information and relying on loan amount as per tariff form 9C. However the petitioner is directed to submit the detailed IDC statement by rectifying the above mentioned deviation, at the time of true up of 2014-19.



- ii) Based on the available information, IDC is being worked out and allowed as shown below:-

(₹ in lakh)

IDC claimed as per Auditor certificate dated 11.01.2018	IDC Disallowed due to computational difference	IDC Allowed on accrual basis	IDC Allowed on cash basis as on COD	Un-discharged IDC liability as on COD	IDC liability allowable as Add. Cap.	
					2017-18	2018-19
1	2	3=(1-2)	4	5=(3-4)	6	7
25.46	0.21	25.25	0.00	25.25	0.00	25.25

15. Incidental Expenditure During Construction (IEDC)

The petitioner has claimed IEDC of ₹ 2.21 lakh in respect of instant asset. The claimed IEDC as on COD is within the percentage on hard cost as indicated in the abstract cost estimate. In the instant petition, 10.75% of hard cost is indicated as IEDC in the abstract cost estimate. Therefore, IEDC of ₹ 2.21 lakh is being considered for determination of tariff in respect of instant asset.

16. Initial spares

- a) This has been dealt in line with Regulation 13 of the 2014 Tariff Regulations. The petitioner has claimed ₹ 63.59 lakh as initial spares for the instant asset. Further, Petitioner vide affidavit dated 22.11.2018 has submitted the details of year-wise discharge of initial spare as shown below:-

Particulars	Amount (₹ in lakh)
Expenditure up to 09.10.2017	57.23
Expenditure from 10.10.2017(COD) to 31.03.2018	4.64
Estimated expenditure from 01.04.2018 to 31.03.2019	1.72
Total	63.59

- b) The spares claimed are within the ceiling limit of CERC tariff Regulation 2014.

Based on the above, the initial spare has been worked out as per tariff



Regulation 2014 as shown below:-

(₹ in lakh)

cost as on 31.03.2019	Initial spares claimed	Ceiling Limit as per 2014 Tariff Regulations	Initial Spares worked out as per CERC norms	Excess Initial Spares
2803.31	63.59	3.50%	99.37	0.00

c) Thus no excess initial spares are being reduced from the capital cost as on COD.

17. Capital Cost allowed as on COD

Based on the above, the capital cost allowed as on COD under Regulation 9 (2) of the 2014 Tariff Regulations is summarized as under:-

(₹ in lakh)

Capital Cost claimed as on COD (A)	IDC Dis-Allowed due to computational difference (B)	Un-discharged IDC liability (C)	Capital Cost as on COD considered for tariff calculation (D)=A-B-C
2126.55	0.21	25.25	2101.09

18. Additional Capital Expenditure (ACE)

- i. The cut-off date for the instant assets is 31.3.2020 as per Clause (13) of Regulation 3 of CERC Tariff Regulations 2014.
- ii. The claim of additional capital expenditure has been dealt in accordance with Regulation 14. The ACE claimed as per Auditor certificate is ₹ 434.43 lakh and ₹ 270.00 lakh for the year 2017-18 and 2018-19 respectively. However, for the purpose of tariff the petitioner in Form 7 has claimed the following ACE.

(₹ in lakh)

Additional Capital expenditure claimed for Asset as per Form 7			
Particulars	Regulation	2017-18 (DOCO to 31.03.2018)	2018-19
Balance and retention amount and accrued IDC	14(1)(i)	434.43	295.46

- iii. The entitled un-discharged IDC liability as on COD has been allowed as ACE



during the year of its discharge. The allowed Additional Capital expenditure are summarized below which is subject to true up.

(₹ in lakh)

Allowed Add-cap	Regulation	2017-18	2018-19
Discharge of Liability on Hard Cost	14(1)(i)	434.43	270.00
Add cap to the extent of unexecuted work	14(1)(ii)	0.00	0.00
Discharge of un discharge liabilities- IDC.	14(1)(i)	0.00	25.25
Total allowed add-cap		434.43	295.25

19. Capital Cost summary from COD to 31.3.2019

The capital cost considered for the purpose of computation of tariff is as follows:-

(₹ in lakh)

Capital cost allowed as COD	Additional Capitalisation		Total Estimated Completion Cost up to 31.3.2019
	2017-18	2018-19	
2101.09	434.43	295.25	2830.77

20. Debt-Equity Ratio

Debt: Equity Ratio is considered as per Regulation 19 of the 2014 tariff Regulations. The financial package up to COD as submitted in form 6 has been considered to determine the debt equity Ratio. The capital cost allowed as on the date of commercial operation arrived at as above and additional capitalization allowed have been considered in the debt-equity ratio of 70:30. The details of debt-equity as on dates of commercial operation and 31.3.2019 considered on normative basis are as under:

(₹ in lakh)

Particular	Capital cost as on COD		Capital cost as on 31.3.2019	
	Amount	%	Amount	%
Debt	1470.76	70.00%	1981.54	70.00%
Equity	630.33	30.00%	849.23	30.00%
Total	2101.09	100.00%	2830.77	100.00%



21. Return on Equity

i) The petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject to truing up based on the effective tax rate of respective financial year applicable to the petitioner company.

ii) We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of 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. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the RoE allowed is as follows:-

Particulars	(₹in lakh)	
	2017-18 (Pro-rata)	2018-19
Opening Gross Normative Equity	630.33	760.66
Addition due to Additional Capitalization	130.33	88.57
Closing Gross Normative Equity	760.66	849.23
Average Normative Equity	695.49	804.94
Rate of Return on Equity (Base Rate)	15.50%	15.50%
MAT rate for the Financial year 2013-14	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%
Return on Equity (Pre-tax)	64.64	157.85

22. Interest on loan (IOL)

i) The petitioner's entitlement to IoL has been calculated as per the provisions of Regulation 26 of the 2014 Tariff Regulations as detailed below:-



- a) The Gross Normative loan has been considered as per the Loan amount determined based on the debt equity ratio applied on the allowed capital cost.
- b) The depreciation of every year has been considered as Normative repayment of loan of concerned year;
- c) The weighted average rate of interest on actual loan portfolio has been worked out by considering the Gross amount of loan, repayment & rate of interest as mentioned in the petition, which has been applied on the normative average loan during the year to arrive at the interest on loan.
- ii) The petitioner has submitted that the IoL has been claimed on the basis of rate prevailing as on COD and the change in interest due to floating rate of interest applicable, if any, needs to be claimed/ adjusted over the tariff block 2014-19. We have calculated IoL on the basis of rate prevailing as on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up.
- iii) The details of IoL allowed are as under:-

(₹ in lakh)

Particulars	2017-18 (Pro rata)	2018-19
Gross Normative Loan	1470.76	1774.86
Cumulative Repayment up to previous Year	0.00	69.55
Net Loan-Opening	1470.76	1705.31
Addition due to Additional Capitalization	304.10	206.67
Repayment during the year	69.55	169.84
Net Loan-Closing	1705.31	1742.14
Average Loan	1588.04	1723.72
Weighted Average Rate of Interest on Loan	7.2476%	7.2473%
Interest on Loan	54.55	124.92

23. Depreciation

- i) The petitioner has claimed the actual depreciation as a component of annual fixed charges as per Regulation 27 of 2014 Tariff Regulations. The instant transmission asset was put under commercial operation on 10.10.2017. Accordingly, it will complete 12 years after the current tariff period. As such, depreciation has been calculated annually based on Straight Line Method in accordance with Regulation 27 at the rates specified in Appendix-II to the 2014 Tariff Regulations.
- ii) The details of the depreciation worked out are as under:-

(₹ in lakh)

Particulars	2017-18 (Pro rata)	2018-19
Opening Gross Block	2101.09	2535.52
Additional Capital expenditure	434.43	295.25
Closing Gross Block	2535.52	2830.77
Average Gross Block	2318.31	2683.14
Rate of Depreciation	6.3300%	6.3300%
Depreciable Value	2086.47	2414.83
Remaining Depreciable Value	2086.47	2345.27
Depreciation	69.55	169.84

24. Operation and Maintenance Expenses (O&M Expenses)

Petitioner has submitted that the Annual Maintenance Contract (AMC) of SCADA/EMS system established under ULDC Scheme for all the constituents shall be responsibility of the respective SLDCs in line with ER-ULDC Project. Accordingly, the petitioner has not claimed O&M expenses for the instant Asset.

25. Interest on Working Capital ("IWC")

- i) As per 2014 Tariff Regulations the components of the working capital and the interest thereon are discussed hereinafter:-

a) Receivables:

The receivables have been worked out on the basis of 2 months' of annual fixed cost as worked out above.



b) Rate of interest on working capital:

As per Clause 28 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, SBI Base Rate (9.10%) as on 01.04.2017 Plus 350 Bps i.e. 12.60 % have been considered as the rate of interest on working capital.

ii) The interest on working capital allowed for the instant assets is shown in the table given below:-

(₹in lakh)

Particulars	2017-18 (pro-rata)	2018-19
Receivables	67.80	77.05
Total	67.80	77.05
Rate of Interest (%)	12.60%	12.60%
Interest	4.05	9.71

26. Annual Fixed Cost

In view of the above, the annual transmission charges being allowed for the instant assets are summarized hereunder:-

(₹in lakh)

Particulars	2017-18 (Pro-rata)	2018-19
Depreciation	69.55	169.84
Interest on Loan	54.55	124.92
Return on Equity	64.64	157.85
Interest on Working Capital	4.05	9.71
O&M Expenses	0.00	0.00
Total	192.80	462.32

27. Filing fee and the publication expenses

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



28. License fee and RLDC Fees and Charges

The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2) (b) and (2) (a) respectively of Regulation 52 of the 2014 Tariff Regulations.

29. Goods and Services Tax

The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. GST is not levied on transmission service at present and we are of the view that petitioner's prayer is premature.

30. Sharing of Transmission Charges

- a) The Commission vide provisional order dated 5.11.2018 has directed the petitioner to Clarify whether any of the instant asset has been used/shared for telecom business. If so, the details of line length, auditor certificate on segregated cost its reconciliation of costs mentioned in various forms separately for the assets used for telecom business and transmission business assets should be submitted.
- b) In response, the petitioner vide affidavit dated 22.11.2018 has submitted that under the subject project, the instant asset or any of its part/portion is not being used for Telecom business.
- c) We have considered the submission of the petitioner. Transmission Charges shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing



of Inter-State Transmission Charges & Losses) Regulations, 2010 as amended time to time. The Asset covered in the instant petition is pertains to DVC. Accordingly the transmission charges shall be recovered from DVC on monthly basis in accordance with Regulation 43 of 2014 Tariff Regulations.

31. This order disposes of Petition No. 107/TT/2018.

**Sd/-
(Indu Shekar Jha)
Member**

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

**Sd/-
(P.K. Pujari)
Chairperson**

