

CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 135/TT/2017

Coram:

**Shri P. K. Pujari, Chairperson
Shri A. K. Singhal, Member
Shri A. S. Bakshi, Member
Dr. M. K. Iyer, Member**

Date of Order : 26.06.2018

In the matter of:

Petition for determination of wheeling charges in respect of transmission system of Odisha Power Transmission Corporation Limited comprising the 220 kV D/C Rourkela Tarkera Budhipadar Korba (Odisha portion) line and associated sub-station bays for the period 2014-19 for transmission of surplus power from NTPC Power Stations in Eastern Region (ER) to Western Region (WR)

And in the matter of:

Odisha Power Transmission Corporation Limited,
Janpath, Bhubaneshwar -751022,
Odisha

...Petitioner

Vs

1. Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001
Haryana
2. Madhya Pradesh Power Management Company Ltd. (MPPMCL)
Block No. 11, Ground Floor, Shakti Bhavan,
Rampur, Jabalpur-482008
3. Gujarat Urja Vikas Nigam Limited (GUVNL)
GUVNL, Sardar Patel Vidyut Bhawan, Race Course,
Vadodara-390007
4. Chhattisgarh State Power Distribution Co. Ltd. (CSPDCL),
Vidut Sewa Bhawan, Ground Floor, Danganiya,
Raipur, Chhattisgarh-492013



5. Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL)
5th Floor, Prakashgad, Plot No. G-9,
Bandra, East Mumbai,
Maharashtra-400051
6. Govt. of Goa, Electricity Department
Panaji, Goa
7. Administration of Daman & Diu,
Daman, Power House Building (2nd Floor),
Daman- 396210
8. Administration of Dadra and Nagar Haveli,
Silvasa-396230

...Respondents

For Petitioner : Shri Raj Kumar Mehta, Advocate, OPTCL
Ms. Himanshi Andley, Advocate, OPTCL

For Respondents : Shri Vivek Kumar Singh, PGCIL
Shri Rakesh Prasad, PGCIL
Shri S.S. Raju, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri V.P. Rastogi, PGCIL

ORDER

This petition has been filed by Orissa Power Transmission Corporation Limited (OPTCL) seeking approval of wheeling charges in respect of Transmission System of OPTCL comprising the 220 kV D/C Rourkela Tarkera-Budhipadar-Korba (Odisha Portion) Line and associated sub-station bays (hereinafter referred to as “the transmission asset”) for the period from 1.4.2014 to 31.3.2019 for transmission of surplus power from NTPC power stations in Eastern Region (ER) to Western Region (WR) based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, (hereinafter referred to as “the 2014 Tariff Regulations”).



2. The tariff for Asset-1: 220 kV Rourkela-Tarkera D/C line including two incoming bays at Tarkera; Asset-2: 220 kV D/C Tarkera- Budhipadar line including two outgoing bays; Asset-3: 2 no. 220 kV D/C incoming and 2 no. outgoing bays at Budhipadar Sub-station; and Asset-4: 220 kV D/C Budhipadar-Korba line (Odisha portion) for the 2009-14 tariff period was determined vide order dated 26.8.2014 in Petition No.185/TT/2013 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 Tariff Regulations”).

3. The petitioner has submitted that surplus power from NTPC power stations in Eastern Region (ER) to the constituents of Western Region (WR) is transmitted through the Transmission System of Odisha Power Transmission Corporation Limited (OPTCL) comprising the 220 kV D/C Rourkela-Tarkera-Budhipadar-Korba (Odisha Portion) line and associated eight number sub-station bays with effect from May,1997.

4. Details of the “wheeling charges” claimed by the petitioner for combined four assets are as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	68.75	68.75	68.75	68.75	68.75
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on equity	390.68	390.68	390.68	390.68	390.68
Interest on Working Capital	32.34	33.06	33.81	34.57	35.38
O & M Expenses	393.90	406.96	420.60	434.38	449.00
Total	885.67	899.45	913.84	928.38	943.81

5. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	59.09	61.04	63.09	65.16	67.35
O & M expenses	32.83	33.91	35.05	36.20	37.42
Receivables	147.61	149.91	152.31	154.73	157.29
Total	239.52	244.87	250.45	256.09	262.06
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	32.34	33.06	33.81	34.57	35.38

6. The petitioner has served the petition on the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 ("the Act"). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. Madhya Pradesh Management Company Limited (MPPMCL), Respondent No. 2, has filed reply vide affidavit dated 27.7.2017. MPPMCL has raised issues of time over-run and Return on Equity. In response, the petitioner has filed rejoinder to the reply vide affidavit dated 3.8.2017. The objections raised by the respondent and the clarification given by the petitioner is addressed in the relevant paragraph of this order.

Capital Cost

7. Clause (1) & (3) of Regulation 9 of the 2014 Tariff Regulations specify as follows:-

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.”

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

- a. the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- b. additional capitalization and de-capitalization for the respective year of tariff as



determined in accordance with Regulation 14;and

c. expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation15.”

8. The Commission in order dated 29.5.2015 has considered the following capital cost and notional date of commercial operation (COD) for the purpose of computation for wheeling charges for the period 2009-14 for the assets:-

Assets	(₹ in lakh)	
	Notional COD	Cost as on COD
Asset-1: 220 kV Rourkela-Tarkera D/C line including two incoming bays at Tarkera.	1.4.1994	758.18
Asset-2: 220 kV D/C Tarkera- Budhipadar line including two outgoing bays.	1.4.1994	1705.70
Asset-3: 2 no. 220 kV D/C incoming and 2 no. outgoing bays at Budhipadar Sub-station	1.4.1994	800.56
Asset-4: 220 kV D/C Budhipadar-Korba line (Odisha portion).	1.4.1994	720.00
Total		3984.44

9. There has been no further capitalization in respect of the above assets during the period 2009-14. Hence, the capital cost considered as on 31.3.2014 vide order dated 29.5.2015 in Petition No. 185/TT/2013 shall be considered as opening capital cost as on 1.4.2014 for the purpose of computation for wheeling charges for the period 2014-19 for the assets.

Additional Capital Expenditure

10. The petitioner has not claimed any additional capital expenditure during the 2014-19 period.

Debt: Equity Ratio

11. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as under:-



“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

12. The Commission, vide order dated 29.5.2015 in Petition No. 185/TT/2013 has observed as under:-

“20. The debt-equity considered for fixation of “wheeling charges” for the 2004-09 period was 50:50. The same debt-equity ratio of 50:50 has been considered for computation of “wheeling charges” for the 2009-14 tariff period.”

13. The debt-equity considered for fixation of “wheeling charges” for the 2009-14 period was 50:50. The same debt-equity ratio of 50:50 has been claimed and considered for computation of “wheeling charges” for the 2014-19 tariff period. The details of the debt: equity as on 1.4.2014 considered for the purpose of tariff for the 2014-19 tariff period is as follows:-

(₹ in lakh)		
Particulars	Amount	(%)
Debt	1992.22	50.00
Equity	1992.22	50.00
Total	3984.44	100.00

Return on Equity (“ROE”)

14. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“**24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system”

“**25. Tax on Return on Equity:**

(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."

15. MPPMCL has submitted that the petitioner has not enclosed the Audited Balance Sheet and the Profit & Loss Account for 2014-15 and 2015-16 and hence MPPMCL is unable to verify the post-tax ROE. As per the Profit and Loss Account for the year ending on 31.3.2012, no tax expenses has been paid by the petitioner. As the petitioner has not submitted the Audited Balance Sheet and the Profit & Loss Account, the base rate of ROE of 15.50% may be allowed. Post-tax ROE may be allowed after verification of Corporate Tax/MAT at the time of truing-up of the tariff of 2014-19 period. In response, the petitioner has submitted that as provided under Regulation 25 (1) of the 2014 Tariff Regulations, the base rate of ROE allowed under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. In case of transmission licensees paying MAT, the rate will be 19.610%, accordingly the petitioner has calculated ROE @ 19.610% for the 2014-19 tariff period. Thus, the MPPMCL's plea to allow base rate of ROE @ 15.50% is not accordance with the 2014 Tariff Regulations.

16. We have considered the submissions of MPPMCL and the clarifications given 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. The petitioner has submitted in its rejoinder to the MPPMCL's reply that MAT rate is applicable to it. 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, in terms of the above regulations, Return on Equity has been computed as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1992.22	1992.22	1992.22	1992.22	1992.22
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1992.22	1992.22	1992.22	1992.22	1992.22
Average Equity	1992.22	1992.22	1992.22	1992.22	1992.22
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the year (%)	20.96%	20.96%	20.96%	20.96%	20.96%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%	19.610%
Return on Equity (Pre Tax)	390.67	390.67	390.67	390.67	390.67

17. The petitioner is however directed to submit the effective tax rates along with the tax audit report for the period 2014-19 at the time of revision of tariff based on truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

Interest on Loan

18. Since the loans have already been repaid, the Interest on Loan component is NIL.

Depreciation

19. Clause (2), (5) and (6) of Regulation 27 of the 2014 Tariff Regulations provide as follows:-



"27. Depreciation:

(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 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"

"(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** 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 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets."

20. The life of all four assets has been considered as per notional date of commercial operation as per order dated 22.2.2014 and corrigendum dated 7.5.2015 in Petition No. 25/TT/2011.

21. In view of above, depreciation has been considered by spreading the balance depreciable value of the asset over its balance useful life in line with the Regulation 27 (5) of the 2014 Tariff Regulations. The cumulative depreciation of the instant transmission assets as on 1.4.2014, has been considered as given hereunder:-

(₹ in lakh)

Particulars	Cumulative Depreciation as on 1.4.2014
Asset-1	540.98
Asset-2	1175.52
Asset-3	620.97
Asset-4	563.58
TOTAL	2901.05

22. The details of the depreciation allowed are given hereunder:-



Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	3984.44	3984.44	3984.44	3984.44	3984.44
Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Gross block	3984.44	3984.44	3984.44	3984.44	3984.44
Average gross block	3984.44	3984.44	3984.44	3984.44	3984.44
Balance Useful life of the asset	10	9	8	7	6
Remaining Depreciable Value at the beginning of the year	684.95	616.45	547.96	479.46	410.97
Depreciation	68.49	68.49	68.49	68.49	68.49

Operation & Maintenance Expenses (O&M Expenses)

23. The petitioner has computed normative O&M Expenses as per sub-clause of clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, the petitioner's entitlement to O&M Expenses has been worked out as given hereunder:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
D/C Transmission line (₹ lakh/ckt-km)	0.303	0.313	0.324	0.334	0.346
220 kV bay (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.10

24. The details of O&M Expenses allowed for the instant assets are given hereunder:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses Allowed	393.90	406.96	420.60	434.38	449.00

Interest on Working Capital ("IWC")

25. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:-

“(c) Hydro generating Station including pumped storage hydro electric generating station and transmission system including communication system:

(i) Receivables equivalent to two months of fixed cost;



- (i) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and
(ii) Operation and maintenance expenses for one month”

“(5) Bank Rate” means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

The petitioner has submitted that it has computed Interest on Working Capital @ 13.50% for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points.

26. The Interest on Working Capital is worked out in accordance with Regulation 28(c) of the 2014 Tariff Regulations and the details are shown in the table below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	59.09	61.04	63.09	65.16	67.35
O & M Expenses	32.83	33.91	35.05	36.20	37.42
Receivables	147.57	149.86	152.26	154.69	157.26
Total	239.48	244.82	250.40	256.04	262.02
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest	32.33	33.05	33.80	34.57	35.37

Annual Transmission Charges

27. The details of the annual fixed charges allowed for the instant transmission asset for the 2014-19 tariff period is summarized below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	68.49	68.49	68.49	68.49	68.49
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	390.67	390.67	390.67	390.67	390.67
Interest on Working Capital	32.33	33.05	33.80	34.57	35.37
O & M Expenses	393.90	406.96	420.60	434.38	449.00
Total	885.40	899.18	913.57	928.11	943.54



Filing Fee and Publication Expenses

28. 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 clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Sharing of transmission charges

29. The petitioner has requested to direct the CTU to include the tariff allowed for the instant assets in the PoC calculation in terms of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, collect the same from the DICs and to disburse the same to the petitioner. The Wheeling charges/transmission charges of these lines from 1.7.2011 onwards shall be included in the PoC computation and will be shared by the beneficiaries in accordance with the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010. Further, the wheeling charges/transmission charges allowed herein for the period 1.7.2011 to 31.3.2014 shall be recovered by the CTU from the DICs and reimbursed to OPTCL. The wheeling charges/transmission charges reimbursed to OPTCL shall be adjusted in the ARR approved by the State Commission.

30. This order disposes of Petition No.135/TT/2017.

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

sd/-
(A. S. Bakshi)
Member

sd/-
(A. K. Singhal)
Member

sd/-
(P. K. Pujari)
Chairperson

