

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 290/TT/2022**

**Coram:**

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

**Date of Order : 30.04.2023**

**In the matter of:**

Petition for approval of tariff of two numbers of non-ISTS Lines, namely 220 kV Joda-Ramchandrapur (SC) and 220 kV S/C Jindal-Jamshedpur (DVC) lines of OPTCL and inclusion in PoC (Point of Connection) Charges and Losses.

**And in the matter of:**

Odisha Power Transmission Corporation Limited  
Janpath, Bhubaneswar, Odisha.

**..... Petitioner**

**Vs**

1. Jharkhand State Electricity Board  
HEC Engineering Building, Dhurwa  
Ranchi, 834009.
2. Damodar valley Corporation  
DVC Headquarters, DVC Towers  
VIP Road, Kolkata,700054.
3. Power Grid Corporation of India Limited  
Soudamini, Plot No. 02, Sector-29  
Gurugram, Haryana, 122001

**.... Respondents**

**For Petitioner** : Shri R.K Mehta, Advocate, OPTCL  
Ms. Himanshi Andley, Advocate, OPTCL

**For Respondents** : None



## Order

The instant petition has been filed by Odisha Power Transmission Corporation Limited (OPTCL) for approval of transmission tariff Asset-1: 220 kV S/C Joda Ramachandrapur line and Asset-2: 220 kV S/C Jindal-Jamshedpur line 220 kV S/C Jindal-Jamshedpur line, inter-State transmission lines (“transmission assets/lines”) for 2019-24 tariff period, for inclusion in the computation of Point of Connection (PoC) transmission charges in accordance with the Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”). The Petitioner has submitted that said assets were put into commercial operation in 1985 and the length of Assets-1 and 2 is 15.50 km and 32.00 km respectively.

2. The Petitioner has made the following prayers:

- “(a) YTC of 220 kV SC Joda - Ramachandrapur and 220 kV SC Jindal-Jamshedpur (DVC) Lines for 2019-24 Tariff Block may be allowed as claimed by the petitioner;*
- (b) Implementing Agency may be directed to incorporate the Tariff so determined in PoC calculation as per CERC (Sharing of Inter-state Transmission Charges and Losses) Regulations, 2010;*
- (c) Power Grid Corporation of India Limited (PGCIL), CTU may be directed to collect the Tariff from DICs and disburse the same to OPTCL;*
- (d) (Beneficiaries may be directed to reimburse the Filing Fee and Publication Expenses.*
- (e) Such other order/s as may be deemed just and proper in the facts and circumstances of the case may be passed.”*

## Background

3. The Commission vide order dated 14.3.2012 in Petition No. 15/SM/2012 had given the following directions:

*“5. It has come to the notice of the Central Commission that the some of the owners/developers of the inter-State transmission lines of 132 kV and above in North Eastern Region and 220 kV and above in Northern, Eastern, Western and Southern regions as mentioned in the Annexure to this order have approached the Implementing Agency for including their transmission assets in computation of Point*



*of Connection transmission charges and losses under the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 (hereinafter "Sharing Regulations").*

*6. As a first step towards inclusion of non-ISTS lines in the PoC transmission charges, the Commission proposes to include the transmission lines connecting two States, for computation of PoC transmission charges and losses. However, for the disbursement transmission charges, tariff for such assets needs to be approved by the Commission in accordance with the provisions of Sharing Regulations. Accordingly, we direct the owners of these inter-State lines to file appropriate application before the Commission for determination of tariff for facilitating disbursement.*

*7. We direct the respondents to ensure that the tariff petition for determination of tariff is filed by the developers/owners of the transmission line or by State Transmission Utilities where the transmission lines are owned by them in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, by 20.4.2012."*

4. The Commission vide order dated 14.3.2012 in Petition No.15/SM/2012, taking into consideration the request of the State utilities, observed that it proposes to include the transmission lines connecting two States in the PoC charges and accordingly directed the developers/owners of the transmission lines or the STU's to file appropriate tariff petitions for determination of tariff for 2011-14 period as per the provisions of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ("the 2009 Tariff Regulations").

5. The Commission vide order dated 12.5.2017 in Petition No.7/SM/2017 directed the State utilities to file tariff petitions for the ISTS lines connecting two States, alongwith the certificate from the concerned RPC, for the 2014-19 tariff period as per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 ("the 2014 Tariff Regulations").

6. In compliance to the Commission's order dated 14.3.2012 in Petition No. 15/SM/2012, five transmission lines of OPTCL were identified as inter-State



transmission lines and OPTCL was directed to file tariff petition for the following five transmission lines for the purpose of inclusion in the PoC charges:

| Srl. No | From       | To From        | Connecting States   | Voltage Level (kV) |
|---------|------------|----------------|---------------------|--------------------|
| 1.      | Budhipadar | Raigrah        | Orissa-Chhattisgarh | 220                |
| 2.      | Budhipadar | Korba 2        | Orissa-Chhattisgarh | 220                |
| 3.      | Budhipadar | Korba 3        | Orissa-Chhattisgarh | 220                |
| 4.      | Joda       | Ramachandrapur | OPTCL-JSEB          | 220                |
| 5.      | Jindal     | Jamshedpur     | OPTCL-DVC           | 220                |

7. In compliance of the directions in order dated 14.3.2012, the Petitioner filed Petition No. 203/TT/2013 claiming tariff for 22 lines for the 2011-14 period. The Commission, taking into consideration the certificates issued by RPC, granted tariff for only two lines vide order dated 23.12.2015 in Petition No. 203/TT/2013. The relevant portions of order dated 23.12.2015 is extracted hereunder:-

“7. The petitioner has submitted that OPTCL has claimed AFC for 220 kV Budhipadar-Korba (Chhattisgarh) D/C line (both for Odisha portion lines and bays owned by OPTCL). As regards the 220 kV Budhipadar-Korba PGCIL S/C line (i.e. 220 kV Budhipadar-Raigarh line), owned by PGCIL, OPTCL has claimed AFC only for OPTCL owned bay at Budhipadar end. The transmission tariff for 220 kV Budhipadar-Korba (i.e 220 kV Budhipadar-Raigarh line) was granted vide commission order dated 29.5.2015 in Petition No. 185/TT/2013 and in respect of 400 kV Kolaghat-Baripada transmission line the tariff was granted vide order dated 8.6.2015 in Petition No.259/TT/2013. Accordingly, the 220 kV Rourkela-Tarkera Budhipadar-Korba line and 220 kV Budhipadar-Raigarh line of PGCIL are not considered for grant of tariff in this order. The 220 kV Joda-Ramachandrapur line and the 220 kV Jindal-Jamshedpur line are allowed tariff in the instant order. The line length in ckt km and date of commercial operation of the two transmission lines which are as follows:-

| Srl. No | Name of Line                                   | Connecting States | Length (ckt. km) | COD  |
|---------|--|-------------------|------------------|------|
| 1.      | 220 kV S/C Joda-Ramachandrapur (COD:1985) line | OPTCL-JSEB        | 15.50            | 1985 |
| 2.      | 220 kV S/C Jindal - Jamshedpur line            | OPTCL-DVC         | 32.00            | 1985 |

8. Thereafter, the Petitioner filed Petition No 155/TT/2017 seeking approval of YTC for 220 kV Joda Ramchandrapur S/C line and 220 kV Jindal-Jamshedpur S/C



line for the 1.4.2014 to 31.3.2019 period and recovery of the same under PoC Regulations. The Petitioner claimed YTC for 2014-19 tariff period based on the indicative cost of PGCIL corresponding to available conductor and voltage level as the assets were very old and were put into commercial operation in the regime of erstwhile Orissa State Electricity Board (OSEB).

9. The Commission vide order dated 22.6.2018 in Petition No. 155/TT/2017 allowed only O&M Expenses and Interest on Working Capital (IWC) for 2014-19 tariff period. The relevant extract of the order dated 22.6.2018 is as follows:

*“11. Assets-1 and 2 have already completed twenty five years of their useful lives. Therefore, as per the Commission’s methodology, only IWC and O&M Expenses of tariff are allowed for the said assets.”*

10. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Act. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. No reply to the petition has been filed by any Respondent in the matter.

11. The hearing in this matter was held on 20.11.2022 through video conference and the order was reserved. This order has been issued considering the submissions made in the petition dated 30.3.2021.

12. Having heard the counsel of the Petitioner and having careful perusal of the material on record, we proceed to dispose of the instant petition.

13. The details of the transmission assets are as follows:



| <b>Srl. No</b> | <b>Name of Line</b>                            | <b>Connecting States</b> | <b>Length (ckt. km)</b> | <b>COD</b> |
|----------------|--|--------------------------|-------------------------|------------|
| 1.             | 220 kV S/C Joda-Ramachandrapur line (COD:1985) | OPTCL-JSEB               | 15.50                   | 1985       |
| 2.             | 220 kV S/C Jindal-Jamshedpur line              | OPTCL-DVC                | 32.00                   | 1985       |

### **Capital Cost**

14. The Petitioner has submitted that the said transmission lines are old and the capital cost data of these lines are not available with the Petitioner and has prayed to approve the YTC for the said ISTS lines. The Petitioner has submitted that in line with Commission's approval of YTC as determined in order dated 22.6.2018 in Petition No. 155/TT/2017, the Petitioner has claimed YTC for the transmission assets for 2019-24 tariff period. Accordingly, Petitioner has claimed IWC and O&M Expenses for the 2019-24 tariff period in lieu of YTC.

15. We have considered the submissions of the Petitioner. The Petitioner has not been able to provide the audited capital cost certificates for the instant transmission assets. The tariff for the 2014-19 tariff period for the transmission lines has been determined as per the methodology adopted by the Commission for the 2014-19 tariff period in order dated 22.6.2018 in Petition No 155/TT/2017.

16. As Assets-1 and 2 have already completed thirty-five years of their useful life as on 31.3.2019, the methodology adopted in order dated 22.6.2018, subject to the provisions of the 2019 Tariff Regulations has been extended for the purpose of determination of tariff in respect of transmission assets for 2019-



24 tariff period. Accordingly, as per the methodology, only “IWC” and “O&M” Expenses are allowed for the transmission assets in the instant order.

**Determination of Annual charges for 2019-2024 Tariff period**

17. The Interest on Working Capital (IWC) of Assets-1 and 2 claimed by the Petitioner for the year from 2019-24 as under:

(₹ in lakh)

| <b>Asset-1</b>   | <b>2019-20</b> | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> |
|--|----------------|----------------|----------------|----------------|----------------|
| Interest Rate  | 12.05          | 11.25          | 11.25          | 11.25          | 11.25          |
| Receivables equivalent to 45 days of Annual Fixed Cost         | 1.00           | 1.04           | 1.07           | 1.11           | 1.15           |
| Maintenance Spares @ 15% of Operation and Maintenance Expenses | 1.17           | 1.21           | 1.25           | 1.30           | 1.34           |
| Operation and Maintenance Expenses for one month               | 0.65           | 0.67           | 0.70           | 0.72           | 0.75           |
| <b>Sub-total</b>   | <b>2.94</b>    | <b>3.03</b>    | <b>3.14</b>    | <b>3.24</b>    | <b>3.35</b>    |
| Annual Fixed Cost  | 8.15           | 8.42           | 8.71           | 9.01           | 9.34           |
| <b>Interest on Working Capital</b>                             | <b>0.35</b>    | <b>0.34</b>    | <b>0.35</b>    | <b>0.36</b>    | <b>0.38</b>    |

(₹ in lakh)

| <b>Asset-2</b>   | <b>2019-20</b> | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> |
|--|----------------|----------------|----------------|----------------|----------------|
| Interest Rate **   | 12.05          | 11.25          | 11.25          | 11.25          | 11.25          |
| Receivables equivalent to 45 days of Annual Fixed Cost         | 2.07           | 2.14           | 2.21           | 2.29           | 2.37           |
| Maintenance spares @ 15% of Operation and Maintenance Expenses | 2.41           | 2.50           | 2.59           | 2.68           | 2.77           |
| Operation and Maintenance Expenses for one month               | 1.34           | 1.39           | 1.44           | 1.49           | 1.54           |



|                             |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|
| <b>Sub-total</b>            | 5.94  | 6.14  | 6.35  | 6.57  | 6.80  |
| Annual Fixed Cost           | 16.81 | 17.36 | 17.96 | 18.60 | 19.26 |
| Interest on Working Capital | 0.72  | 0.69  | 0.71  | 0.74  | 0.76  |

### **O&M Expenses**

18. The O&M Expenses claimed by the Petitioner for the transmission assets is as follows:

| <b>Particulars</b> | <b>2019-20</b> | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> |
|--------------------|----------------|----------------|----------------|----------------|----------------|
| <b>Asset-1</b>     | 7.80           | 8.08           | 8.35           | 8.65           | 8.96           |
| <b>Asset-2</b>     | 16.10          | 16.67          | 17.25          | 17.86          | 18.50          |
| <b>Total</b>       | 23.89          | 24.75          | 25.60          | 26.51          | 27.46          |

19. The O&M Expenses norms for the transmission assets under Regulation 35(3)(a) of the 2019 Tariff Regulations are as follows:

**“35. Operation and Maintenance Expenses:**

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

| <b>Particulars</b>                                  | <b>2019-20</b> | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> |
|---|----------------|----------------|----------------|----------------|----------------|
| <b>Norms for AC and HVDC lines (₹ Lakh per km)</b>  |                |                |                |                |                |
| <i>Single Circuit (Twin &amp; Triple Conductor)</i> | 0.503          | 0.521          | 0.539          | 0.558          | 0.578          |

20. The Petitioner has submitted that in Petition No. 155/TT/2017, the Commission has approved the O&M Expenses for the rate specified for Single Circuit (Twin and Triple Conductor) with the observation that the Twin Moose Conductor is widely used in the State transmission lines. The Petitioner has claimed O&M Expenses as per Annexure-I of the 2019 Tariff Regulations for the transmission





assets. The approved data is taken for Single Circuit, Twin and Triple Conductor Lines of the Petitioner from Annexure-I. The details of year-wise O&M Expenses for 2019-24 (₹ in lakh/Ckt-km) for Single Circuit (Twin and Triple Conductor) Configuration. (Annexure-I of 2019-24 Tariff Regulation), are as follows as stated above:

| (₹ lakh per circuit-km) |         |         |         |         |         |
|-------------------------|---------|---------|---------|---------|---------|
| Year                    | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| O&M Expenses            | 0.503   | 0.521   | 0.539   | 0.558   | 0.578   |

21. We have considered the submissions of the Petitioner. The O&M Expenses has been worked as per the norms specified in the 2019 Tariff Regulations and the same are as follows:

| (₹ in lakh)  |              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|
| Particulars  | 2019-20      | 2020-21      | 2021-22      | 2022-23      | 2023-24      |
| Asset-1      | 7.80         | 8.08         | 8.35         | 8.65         | 8.96         |
| Asset-2      | 16.10        | 16.67        | 17.25        | 17.86        | 18.50        |
| <b>Total</b> | <b>23.89</b> | <b>24.75</b> | <b>25.60</b> | <b>26.51</b> | <b>27.46</b> |

### **Interest on Working Capital**

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

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

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

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and



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

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

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

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

“3. **Definition** - In these regulations, unless the context otherwise requires:- (7) ‘Bank Rate’ means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;

(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;”

23. 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 and 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:

| <b>Asset-1</b>  | <b>(₹ in lakh)</b> |                |                |                |                |
|---|--------------------|----------------|----------------|----------------|----------------|
| <b>Particulars</b>  | <b>2019-20</b>     | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23</b> | <b>2023-24</b> |
| Working Capital for O&M Expenses (O&M expenses for one month)   | 0.65               | 0.67           | 0.70           | 0.72           | 0.75           |
| Working Capital for Maintenance Spares (15% of O&M expenses)  | 1.17               | 1.21           | 1.25           | 1.30           | 1.34           |
| Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges) | 1.00               | 1.04           | 1.07           | 1.11           | 1.14           |



| Particulars                                 | 2019-20     | 2020-21     | 2021-22     | 2022-23     | 2023-24     |
|---|-------------|-------------|-------------|-------------|-------------|
| <b>Total Working Capital</b>                | 2.82        | 2.92        | 3.02        | 3.13        | 3.23        |
| Rate of Interest for working capital (in %) | 12.05       | 11.25       | 10.50       | 10.50       | 10.50       |
| <b>Interest of working capital</b>          | <b>0.34</b> | <b>0.33</b> | <b>0.32</b> | <b>0.33</b> | <b>0.34</b> |

#### Asset-2

(₹ in lakh)

| Particulars   | 2019-20     | 2020-21     | 2021-22     | 2022-23     | 2023-24     |
|---|-------------|-------------|-------------|-------------|-------------|
| Working Capital for O&M Expenses (O&M expenses for one month)   | 1.34        | 1.39        | 1.44        | 1.49        | 1.54        |
| Working Capital for Maintenance Spares (15% of O&M expenses)  | 2.42        | 2.50        | 2.59        | 2.68        | 2.78        |
| Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges) | 2.07        | 2.14        | 2.21        | 2.29        | 2.36        |
| <b>Total Working Capital</b>  | <b>5.83</b> | <b>6.03</b> | <b>6.24</b> | <b>6.46</b> | <b>6.68</b> |
| Rate of Interest for working capital (in %)   | 12.05       | 11.25       | 10.50       | 10.50       | 10.50       |
| <b>Interest of working capital</b>  | <b>0.70</b> | <b>0.68</b> | <b>0.65</b> | <b>0.68</b> | <b>0.70</b> |

#### Annual Fixed Charges for 2019-24 Tariff Period

24. The Annual Fixed Charges approved for the transmission asset for 2019-24 tariff period are as follows:

#### Asset-1

(₹ in lakh)

| Particulars                 | 2019-20     | 2020-21     | 2021-22     | 2022-23     | 2023-24     |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| Depreciation                | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Interest on Loan            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Return on Equity            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        |
| Interest on Working Capital | 0.34        | 0.33        | 0.32        | 0.33        | 0.34        |
| O&M Expenses                | 7.80        | 8.08        | 8.35        | 8.65        | 8.96        |
| <b>Total</b>                | <b>8.14</b> | <b>8.41</b> | <b>8.67</b> | <b>8.98</b> | <b>9.30</b> |

#### Asset-2

(₹ in lakh)

| Particulars                 | 2019-20      | 2020-21      | 2021-22      | 2022-23      | 2023-24      |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| Depreciation                | 0.00         | 0.00         | 0.00         | 0.00         | 0.00         |
| Interest on Loan            | 0.00         | 0.00         | 0.00         | 0.00         | 0.00         |
| Return on Equity            | 0.00         | 0.00         | 0.00         | 0.00         | 0.00         |
| Interest on Working Capital | 0.70         | 0.68         | 0.65         | 0.68         | 0.70         |
| O&M Expenses                | 16.10        | 16.67        | 17.25        | 17.86        | 18.50        |
| <b>Total</b>                | <b>16.80</b> | <b>17.35</b> | <b>17.90</b> | <b>18.54</b> | <b>19.20</b> |



### **Filing Fee and the Publication Expenses**

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

### **Sharing of transmission charges**

26. The Petitioner has prayed that the tariff approved for the transmission assets be included in the PoC calculation as per the 2010 Sharing Regulations and CTUIL may be directed to collect the tariff from DICs and disburse the same to Petitioner.

27. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations. However, 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 (the 2020 Sharing Regulations). Accordingly, the billing, collection and disbursement of the transmission charges shall be recovered in terms of provisions of the 2010 Sharing Regulations and 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

28. This order disposes of Petition No. 290/TT/2022 in terms of the above findings and discussions.

**( P.K. Singh )  
Member**

**(Arun Goyal)  
Member**

**(I.S Jha)  
Member**

