

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 24/TT/2018

Coram:

Shri P.K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I.S. Jha, Member

Date of Order: 12th of June, 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 Tariff of Transmission Lines Connecting between Karnataka and other Neighbouring States (Natural Inter State Transmission Lines) pertaining to Karnataka Power Transmission Corporation Limited, namely a) 220 kV S/C Line from Ambewadi - Ponda, b) 220 kV S/C Line from Ambewadi - Xyldom, c) 220 kV S/C Line from Sedam - Tandur, d) 220 kV S/C Line from Allipura - Ragalapadu, e) 220 kV S/C Line from Yerandanahalli – Hosur, f) 220 kV S/C Line from Kadakola - Kaniyampet and g) 110 kV S/C Line from Konaje - Manjeshwar for the period from 1.4.2014 to 31.3.2019.

And in the matter of:

Karnataka Power Transmission Corporation Limited
KPTCL, Kaveri Bhavan, Kempegowda Road,
Bengaluru- 560 009

.....Petitioner

Vs

1) Transmission Corporation of Andhra Pradesh Limited(APTRANSCO)
6th Floor, A Block, Vidyut Soudha,
Khairatabad,
Hyderabad – 500 082



- 2) Transmission Corporation of Telangana Limited (TSTRANSCO),
6th Floor, A Block, Vidyut Soudha,
Khairatabad,
Hyderabad – 500 082
- 3) Tamil Nadu Transmission Corporation Limited (TANTRANSCO),
No.144, Anna Salai,
Chennai– 600 002
- 4) Kerala State Electricity Board,
Vidyuthi Bhavanam, Pattom,
Thiruvananthapuram – 695 004
- 5) Electricity Department,
Government of Goa,
Vidyuth Bhavan, Panaji,
Goa – 403 001

.....Respondents

ORDER

The present petition has been filed by Karnataka Power Transmission Corporation Limited (KPTCL) for approval of transmission tariff for the assets a) 220 kV S/C Line from Ambewadi - Ponda, b) 220 kV S/C Line from Ambewadi - Xyldom, c) 220 kV S/C Line from Sedam - Tandur, d) 220 kV S/C Line from Allipura - Ragalapadu, e) 220 kV S/C Line from Yerandanahalli – Hosur, f) 220 kV S/C Line from Kadakola - Kaniyampet and g) 110 kV S/C Line from Konaje -Manjeshwar for the period from 1.4.2014 to 31.3.2019.

2. The Petitioner is presently carrying out solely, the Transmission Business as the State Transmission Utility (STU) in the State of Karnataka and the Annual Revenue Requirement (ARR) for its Transmission Businesses is determined as per the Karnataka Electricity Regulatory Commission (KERC) Regulations.



Background

3. The Central Electricity Regulatory 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 of 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. Accordingly, the Petitioner had filed Petition No. 225/TT/2013 dated 12.2.2013 before the Commission for approval of Transmission Tariff for the period 2011-12, 2012-13 & 2013-14 in respect of the following Inter-State Transmission Lines connecting between Karnataka and other Neighboring States:-

- 1) 220 kV S/C Line from Ambewadi - Ponda (Karnataka - Goa)
- 2) 220 kV S/C Line from Ambewadi - Xyldom (Karnataka - Goa)
- 3) 220 kV D/C Line from Chikkodi - Kolhapur (Karnataka - Maharashtra)
- 4) 220 kV S/C Line from Sedam - Tandur (Karnataka - Andhra Pradesh)
- 5) 220 kV S/C Line from Allipura - Ragalapadu (Karnataka - Andhra Pradesh)
- 6) 220 kV S/C Line from Yerandanahalli - Hosur (Karnataka - Tamilnadu)
- 7) 220 kV S/C Line from Kadakola - Kaniyampet (Karnataka - Kerala)



8) 110 kV S/C Line from Konaje - Manjeshwar (Karnataka - Kerala)

5. The Commission vide its Order dated 28.1.2016 in Petition No.225/TT/2013 has determined the Yearly Transmission Charges (YTC) for the year 2011-12, 2012-13 and 2013-14 in respect of the aforementioned transmission lines except the transmission line mentioned at Sl.No.8 for the reason that the relevant certificate from SRPC was not available in terms of the provisions of CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010.

6. In the instant Petition, the Petitioner has proposed to cover the following assets for tariff purpose:

| Assets | | COD |
|---------------|---|------------|
| Asset- 1 | 220 kV S/C Line from Ambewadi – Ponda | 15.3.1992 |
| Asset-2 | 220 kV S/C Line from Ambewadi – Xyldom | 15.3.1992 |
| Asset-3 | 220 kV S/C Line from Sedam – Tandur | 1984 |
| Asset-4 | 220 kV S/C Line from Alipura – Ragalapadu | 25.9.1975 |
| Asset-5 | 220 kV S/C Line from Yerandanahalli – Hosur | 1962 |
| Asset-6 | 220 kV S/C Line from Kadakola – Kaniyampet | 5.3.1978 |
| Asset-7 | 110 kV S/C Line from Konaje – Manjeshwar | 13.10.1966 |

7. The Petitioner has not included the 220 kV Chikkodi - Kolhapur D/C Line (referred to at Sl.No. 3 in Para. 4 above) in the instant Petition and submitted the following reasons:

- 1) The said Line is not an ISTS Line but a Radial-Line between states of Karnataka and Maharashtra.
- 2) This Line is built by Karnataka and Maharashtra State for use of Bilateral Transactions. Karnataka is drawing power from Maharashtra Radially and the Line is not connected to Karnataka State Grid.

- 3) This Line cannot be used under ISTS Scheme as Chikkodi Sub-Station is connected to KPTCL System rather than Inter-State Transmission System.
- 4) Transmission Charges for the Line are paid by DISCOMs of Karnataka and therefore cannot be used for increasing ATC of Southern Region.
- 5) In this case, even Intervening System is also owned by Karnataka. Hence the first right of usage is with Karnataka DISCOMs.
- 6) This Line is radially operated to draw power from Maharashtra to cater the need of electricity during the periods of acute shortage of power in Karnataka State.
- 7) The Petitioner has not synchronized the said Line with the State Grid as this Line cannot be used to facilitate the drawal of power by Neighboring States as KPTCL Network is already overloaded and cannot support the flow of such power as the same may lead to collapse of the Grid. To avoid such a situation, KPTCL prefers not to connect the said Line to the Grid.

8. The Petitioner has submitted that the instant petition is filed for determination of tariff for seven inter-State transmission lines for the period 2014-19. The Petitioner further submitted that most of these Assets have been constructed more than 30 years ago for which the actual Capital Cost and additional capital cost incurred are not available separately with the Petitioner/Licensees. Based on the available information with the Petitioner, the Petitioner has proposed the following Capital Cost for the instant Assets:

| (₹ in Lakhs) | | | | | | |
|--------------|--|---------|---------|---------|---------|---------|
| SL. No. | Name of Transmission Asset | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
| 1 | 220 kV S/C Line from Ambewadi – Ponda | 752.58 | 752.58 | 752.58 | 752.58 | 752.58 |
| 2 | 220 kV S/C Line from Ambewadi – Xyldom | | | | | |
| 3 | 220 kV S/C Line from Sedam – Tandur | 66.75 | 66.75 | 66.75 | 66.75 | 66.75 |



| SL. No. | Name of Transmission Asset | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---------|---|----------------|---------------|---------------|---------------|---------------|
| 4 | 220 kV S/C Line from Alipura – Ragalapadu | 37.75 | 37.75 | 37.75 | 37.75 | 37.75 |
| 5 | 220 kV S/C Line from Yerandanahalli – Hosur | 1.81 | 1.81 | 1.81 | 1.81 | 1.81 |
| 6 | 220 kV S/C Line from Kadakola – Kaniyampet | 61.44 | 61.44 | 61.44 | 61.44 | 61.44 |
| 7 | 110 kV S/C Line from Konaje – Manjeshwar | 4.93 | 4.93 | 4.93 | 4.93 | 4.93 |
| | Total | 925.26 | 925.26 | 925.26 | 925.26 | 925.26 |
| | Total Capital Cost | 4626.30 | | | | |

9. The Petitioner has claimed the following transmission charges for the instant Assets:-

Annual Revenue Requirement (₹ in Lakhs)

| Asset | Name of Transmission Asset | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-------|---|----------------|---------------|---------------|---------------|---------------|
| 1 | 220 kV S/C Line from Ambewadi – Ponda | 234.08 | 244.23 | 253.75 | 263.41 | 274.42 |
| 2 | 220 kV S/C Line from Ambewadi – Xyldom | | | | | |
| 3 | 220 kV S/C Line from Sedam – Tandur | 81.57 | 84.63 | 87.45 | 90.25 | 93.46 |
| 4 | 220 kV S/C Line from Alipura – Ragalapadu | 102.68 | 106.45 | 109.89 | 113.27 | 117.17 |
| 5 | 220 kV S/C Line from Yerandanahalli – Hosur | 79.56 | 82.40 | 84.99 | 87.55 | 90.49 |
| 6 | 220 kV S/C Line from Kadakola – Kaniyampet | 98.70 | 115.19 | 118.96 | 122.67 | 126.96 |
| 7 | 110 kV S/C Line from Konaje – Manjeshwar | 36.00 | 37.55 | 38.52 | 39.34 | 40.66 |
| | Total | 632.59 | 670.45 | 693.56 | 716.49 | 743.16 |
| | Total ARR | 3456.25 | | | | |

10. The Petitioner has made the following prayers:-

- a) Approve the Capital Cost of the Inter State Transmission Lines connecting between Karnataka and neighboring states for ₹ 4626.30 Lakhs for FY 2014-2019 at Sl.No.12 of the petition.
- b) Approve the Transmission Tariff for Assets covered under this Petition at ₹3456.25 Lakhs as at 13.4 above of the petition.
- c) Approve the reimbursement of Expenditure by the Beneficiaries towards Petition Filing Fee and the expenses incurred on publication of Notices in the Application for approval of Tariff as per the Terms of Regulation 52 of



CERC (Terms and conditions of Tariff) Regulations, 2014 and other Expenditure (if any) relating to the filing of Petition.

- d) Allow the Petitioner to bill and recover any Taxes on Transmission Charges separately from beneficiaries, if Petitioner is subject to such Taxes.*
- e) Allow the Petitioner to bill and recover Licensee Fee separately from the beneficiaries.*
- f) Allow the Petitioner to file the Transmission Tariffs for next Control Period for the Assets included in the present petition with Capital Cost and Additional Capital cost incurred on the above assets.*

Analysis and Decision

11. The petition was last heard on 28.2.2019 and pursuant to the said hearing, the Petitioner vide affidavit dated 26.05.2018 submitted the SRPC's certificate dated 17.5.2018 in respect of 110 kV Konaje-Manjeshwar line (Asset-7).

12. Since, the Petitioner has furnished the SRPC's certificate in respect 110 kV Konaje-Manjeshwar line, the same along with other six assets has been considered for the purpose of Tariff. The tariff in respect of transmission asset '220 kV Chikkodi - Kolhapur D/C Line' is not being considered for the reasons and submissions made by the Petitioner. Accordingly, following Assets have been considered for determination of transmission charges:

| Assets | | COD |
|---------------|---|------------|
| Asset- 1 | 220 kV S/C Line from Ambewadi – Ponda | 15.3.1992 |
| Asset-2 | 220 kV S/C Line from Ambewadi – Xyldom | 15.3.1992 |
| Asset-3 | 220 kV S/C Line from Sedam – Tandur | 1984 |
| Asset-4 | 220 kV S/C Line from Alipura – Ragalapadu | 25.9.1975 |
| Asset-5 | 220 kV S/C Line from Yerandanahalli – Hosur | 1962 |
| Asset-6 | 220 kV S/C Line from Kadakola – Kaniyampet | 5.3.1978 |
| Asset-7 | 110 kV S/C Line from Konaje – Manjeshwar | 13.10.1966 |



13. Similar issue was considered by the Commission in its order dated 22.6.2018 in Petition No. 155/TT/2017 wherein the transmission charges in respect of natural ISTS lines were determined on the basis of methodology already adopted by the Commission.

The relevant portion of the said order is extracted as under :

"9 Some of the other State Utilities have filed similar petitions claiming tariff of inter-State transmission lines connecting two States for the 2014-19 tariff periods as per the directions of the Commission. The information submitted by some State Utilities were incomplete and inconsistent. Further, some of the lines were more than 25 years old and the States were not having the details of the capital cost, funding, etc. To overcome these difficulties, the Commission evolved a methodology for allowing transmission charges for such transmission lines connecting two States in orders dated 19.12.2017 in Petition Nos. 88/TT/2017, 173/TT/2016 and 168/TT/2016 filed by Madhya Pradesh Power Transmission Corporation Limited, Maharashtra State Electricity Regulatory Commission and Uttar Pradesh Power Transmission Corporation Limited respectively. The Commission adopted the same methodology in order dated 4.5.2018 in Petition No.112/TT/2017, while granting tariff for ISTS connecting Rajasthan with other States and owned by Rajasthan Rajya Vidyut Prasaran Limited. The Commission derived the benchmark cost on the basis of the transmission lines owned by PGCIL. The useful life of the transmission line was considered as 25 years and for lines more than or equal to 25 years, only O & M Expenses and Interest on Working Capital (IWC) has been decided to be allowed as per the existing Tariff Regulations. For assets put into commercial operation on or after 1.4.2014, tariff has been decided to be allowed on the benchmark cost on the basis of the transmission lines owned by PGCIL. The useful life of the transmission line was considered as 25 years and for lines more than or equal to 25 years, only O & M Expenses and Interest on Working Capital (IWC) has been decided to be allowed as per the existing Tariff Regulations. For assets put into commercial operation on or after 1.4.2014, tariff has been decided to be allowed on the basis of the audited financial capital cost. The relevant portion of the order dated 4.5.2018 is extracted hereunder:-

"13. It is observed that the information submitted by the petitioner States for computation of transmission charges for the deemed ISTS lines are not uniform, thereby causing divergence in working out the tariff. In some cases, the data related to funding and depreciation was not available and in some cases the assets have already completed, or nearing, their useful life. In most of the petitions, the states have expressed their inability to furnish the audited capital cost of transmission lines as the lines are old. As a result, tariff workings for old assets are ending in skewed results. It is further observed that the YTC figures emerging out by the existing ARR methodology are on the higher side. Considering these facts, we have conceptualized a modified methodology for determining the tariff of the inter-State transmission lines. The methodology is broadly based on the following:-

Tariff Methodology

14. As per the petitions filed by the states, their ISTS lines generally have the configuration of 132 kV, 220 kV or 400 kV. In the absence of an established tariff data base, in order to develop this methodology Annual Reports of PGCIL from 1989-90 to 2013-14 have been referred to. The Annual Reports depict, inter alia, the information pertaining to year wise total length of transmission lines in ckt-km and corresponding Gross Block. This pan-India data represents all the five transmission regions and is a composite mix of parameters like terrains, wind-zones, tower and conductor type etc. +/- 500 kV HVDC and 765 kV and above voltage level AC lines too have come up in between and the data also includes those lines. Voltage level wise data as on 30th April 2017, obtained from PGCIL indicates that the percentage of 220 kV, 132 kV and 66 kV Transmission Line taken together makes it around 8.3 % of the total line length owned by PGCIL. Further, 132 kV Transmission Lines were established in NER prior to 1990, and Transmission Lines of 220 kV voltage levels were last commissioned in around the year 2004 in NR. Majority of the transmission lines consist of 400 kV which corresponds to 66% of the total transmission line lengths. Thus, the 400 kV and lesser voltage levels account for approximately 75% of the transmission lines. Assuming the above referred spread of voltage wise percentages for earlier years too, it can be said that the year wise average Transmission Line cost figures derived from PGCIL data, when further reduced by 25%, fairly represent the average transmission line capital cost corresponding to a 400 kV S/C line. Considering 400 kV S/C transmission line cost as reference cost, analysis of PGCIL's indicative cost data (P/L Feb 2017) suggests the following:-

| SL. No. | Reference cost of 400 kV S/C TL | ₹ X lakh/km |
|----------------|--|--------------------|
| 1 | 400 kV D/C TL | 1.39 X |
| 2 | 220 kV D/C TL | 0.57 X |
| 3 | 220 kV S/C TL | 0.36 X |
| 4 | 132 kV D/C TL | 0.43 X |
| 5 | 132 kV S/C TL | 0.31 X |

15. Therefore, for arriving at the costs of transmission lines of other voltage levels and circuit configurations, the average transmission line cost data shall be multiplied by the factors illustrated in the above table. Lower voltage levels can be treated as part of 132 kV. The above table contemplates Twin Moose conductor which is widely used in State transmission lines.

16. Based on respective year end data, average transmission line length during the year has been worked out. Difference between a particular year's average transmission line length figures and that for the immediate preceding year provides us the transmission line length added during that year. Average gross block corresponding to transmission lines has been divided by the average transmission line length to arrive at the Average Cost of transmission line (in ` lakh per ckt-km) during the year. Thus, considering the year of COD of a State's ISTS line and its ckt-km, its cost would be worked out by relating it to PGCIL's transmission line cost during that year. Although the Commission has relied on PGCIL's Annual Reports, there are certain deviations in the cost data worked out. The year 1989-90 was the year of incorporation for PGCIL, and the transmission assets of NTPC, NHPC, NEEPCO etc. were taken over by PGCIL by mid-1991-92. Thus, as the base data for these years was not available, the corresponding average cost of transmission line could not be worked out. The average cost from 1992-93 onwards up to 2013-14 shows an increasing trend at a CAGR of 5.17%. Therefore, for the years 1989- 90, 1990-91 and 1991-92, the average cost of transmission line has been back derived considering the 1992-93 average cost. Similarly, abnormal dip/spikes in the transmission line cost for the years 1996-97, 2001-02 and 2004-

05 has been corrected by considering the average values of the transmission line costs in the immediate preceding and succeeding years.

17. While calculating tariff, the following has been considered:-

- (i) Useful life of the transmission line shall be deemed to be 25 years.
- (ii) Prevailing depreciation rates as per the 2014 Tariff Regulations shall be considered uniformly for all the previous tariff periods so as to do away with the Advance Against Depreciation which was in vogue during earlier tariff periods. Notwithstanding the depreciation considered as recovered earlier, for the purpose of these tariff calculations, remaining depreciable value shall be spread over the remaining useful life of the transmission line, where the elapsed life is more than or equal to 12 years.
- (iii) Normative Debt-Equity ratio shall be 70:30.
- (iv) Normative loan repayment during a year shall be deemed to be equal to the depreciation allowed for that year.
- (v) Rate of Interest on normative loan shall be the weighted average rate of interest as derived on the basis of PGCIL's Balance Sheet.
- (vi) In order to avoid complexity, grossing up of rate of Return on Equity with tax rate is being dispensed with.
- (vii) Bank rate as defined in 2014 Tariff Regulations, 2014 as on 1.4.2014 shall be applied for calculating the rate of interest on working capital on normative basis.
- (viii) O & M Expenses as per the 2014 Tariff Regulations shall be considered.
- (ix) Where the life of transmission line is more than or equal to 25 years as on 1.4.2014, only O & M Expenses and IWC shall be allowed in lieu of complete tariff.

18. Thus, in effect, this is a normative tariff working methodology which shall be applied in those cases where the audited capital cost information is not available.”

14. The Petitioner has not been able to provide the audited capital cost certificates for the instant assets. However, in line with the methodology explained in foregoing paragraphs, we now proceed to determine the tariff in respect of the following assets:

| Asset | Name of Transmission Asset | COD | Ckt-km |
|--------------|---|------------|---------------|
| 1 | 220 kV S/C Line from Ambewadi – Ponda | 15.3.1992 | 60.00 |
| 2 | 220 kV S/C Line from Ambewadi – Xyldom | 15.3.1992 | 60.00 |
| 3 | 220 kV S/C Line from Sedam – Tandur | 1984 | 9.00 |
| 4 | 220 kV S/C Line from Alipura – Ragalapadu | 25.9.1975 | 64.00 |
| 5 | 220 kV S/C Line from Yerandanahalli – Hosur | 1962 | 12.60 |
| 6 | 220 kV S/C Line from Kadakola – Kaniyampet | 5.3.1978 | 81.00 |
| 7 | 110 kV S/C Line from Konaje – Manjeshwar | 13.10.1966 | 5.50 |

15. Assets 3 to 7 have already completed twenty five years. Therefore, as per the above methodology, only "Interest on working capital" and "O & M Expenses" components of tariff shall be allowable for these assets. Asset-1 and Asset-2 have not completed 25 years as on 1.4.2014. Therefore, in line with the aforesaid methodology, all tariff components are being allowed till 2016-17. However, on completion of 25 years of these assets, only 2 components namely "Interest on working Capital" and "O & M Expenses" are being allowed for the year 2017-18 and 2018-19.

Transmission charges

16. Accordingly, the annual transmission charges being allowed for the instant assets are as under:

(₹ in lakhs)

Asset 1

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| Depreciation | 13.14 | 13.14 | 13.14 | 0.00 | 0.00 |
| Interest on Loan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on equity | 29.82 | 29.82 | 29.82 | 0.00 | 0.00 |
| Interest on Working Capital | 2.33 | 2.37 | 2.42 | 1.48 | 1.53 |
| O & M Expenses | 24.24 | 25.08 | 25.92 | 26.76 | 27.66 |
| Total | 69.53 | 70.42 | 71.30 | 28.24 | 29.19 |

Asset 2

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| Depreciation | 13.14 | 13.14 | 13.14 | 0.00 | 0.00 |
| Interest on Loan | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on equity | 29.82 | 29.82 | 29.82 | 0.00 | 0.00 |
| Interest on Working Capital | 2.33 | 2.37 | 2.42 | 1.48 | 1.53 |
| O & M Expenses | 24.24 | 25.08 | 25.92 | 26.76 | 27.66 |
| Total | 69.53 | 70.42 | 71.30 | 28.24 | 29.19 |

Asset 3

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|---------|---------|---------|---------|---------|
| 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 | 0.20 | 0.21 | 0.21 | 0.22 | 0.23 |
| O & M Expenses | 3.64 | 3.76 | 3.89 | 4.01 | 4.15 |



| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| Total | 3.84 | 3.97 | 4.10 | 4.24 | 4.38 |

Asset 4

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| 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 | 1.43 | 1.48 | 1.53 | 1.58 | 1.63 |
| O & M Expenses | 25.86 | 26.75 | 27.65 | 28.54 | 29.50 |
| Total | 27.28 | 28.23 | 29.18 | 30.12 | 31.13 |

Asset 5

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| 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 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 |
| O & M Expenses | 5.09 | 5.27 | 5.44 | 5.62 | 5.81 |
| Total | 5.37 | 5.56 | 5.74 | 5.93 | 6.13 |

Asset 6

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| 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 | 1.81 | 1.87 | 1.93 | 2.00 | 2.06 |
| O & M Expenses | 32.72 | 33.86 | 34.99 | 36.13 | 37.34 |
| Total | 34.53 | 35.73 | 36.93 | 38.12 | 39.40 |

Asset 7

| Particulars | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|
| 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 | 0.12 | 0.13 | 0.13 | 0.14 | 0.14 |
| O & M Expenses | 2.22 | 2.30 | 2.38 | 2.45 | 2.54 |
| Total | 2.34 | 2.43 | 2.51 | 2.59 | 2.68 |



Filing Fee and Publication Expenses

17. 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 prorata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

Sharing of Transmission Charges

18. The transmission charges shall be recovered on monthly basis in accordance with Regulation 43 of Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2014 and shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time. Further, the transmission charges allowed in this order shall be adjusted against the ARR approved by the SERC.

19. This disposes of the petition 24/TT/2018.

Sd/-
(I.S. Jha)
Member

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

Sd/-
(P. K. Pujari)
Chairperson

