# CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

#### Petition No. 102/TT/2020

Coram:

Shri P. K. Pujari, Chairperson Shri Arun Goyal, Member Shri P. K. Singh, Member

Date of order: 07.05.2022

#### In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of fees and charges based on actual O&M Expenses for the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of fees and charges of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Unified Load Despatch & Communication Scheme (POWERGRID portion i.e. Communication system portion and SLDC system retained by the Petitioner after formation of POSOCO) in the North Eastern Region.

#### And in the matter of:

Power Grid Corporation of India Limited, SAUDAMINI, Plot No-2, Sector-29, Gurgaon-122001 (Haryana).

.....Petitioner

#### **Versus**

- North Eastern Electric Power Corporation Limited, NEEPCO Limited,
   15, NBCC Tower, Bhikaji Cama Place, New Delhi.
- National Hydro Power Corporation (NHPC) Limited, NHPC office complex, Lodhi Road, New Delhi.
- 3. ONGC Tripura Power Company Limited, 6<sup>th</sup> floor, A-wing, IFCI tower, 61, Nehru Place, New Delhi- 110019.
- North East Transmission Company Limited, 1<sup>st</sup> floor, Ambience Corporate Tower, Ambience Mall, Ambience Island.



- 5. National Thermal Power Corporation Limited, Bongaigaon TPP, Salakati, Kokrajhar- 783369, Assam.
- 6. Government of Arunachal Pradesh, Itanagar- 791111, Arunachal Pradesh.
- 7. APDCL Assam Power Distribution Company Limited, Bijuli Bhavan, Paltan Bazar, Guwahati- 781001, Assam.
- Manipur State Electricity Distribution Company Limited, Keishampat, Imphal- 795001, Manipur.
- 9. Meghalaya Electricity Corporation Limited, Lumjingshai, Short Round Road, Shillong-793001, Meghalaya.
- Power and Electricity Department, Government of Mizoram, Khatla, Aizawl-796001, Mizoram.
- Department of Power,
   Government of Nagaland,
   Kohima- 797001, Nagaland.
- 12. Tripura State Electricity Corporation Limited, Vidyut Bhawan, North Banamalipur, Agartala, Tripura- 799001.
- Rajasthan Rajya Vidyut Prasaran Nigam Limited,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur 302005.

  ...Respondent(s)

For Petitioner: Shri S.S. Raju, PGCIL

Shri D.K. Biswal, PGCIL

Shri Ved Prakash Rastogi, PGCIL

Shri A.K. Verma, PGCIL

For Respondent: None

#### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as "the Petitioner") for truing of fees and charges for the period from 1.4.2019 to 31.3.2014 under the Central Electricity Regulatory Commission

(Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of fees and charges for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") for Unified Load Despatch & Communication Scheme (POWERGRID portion i.e. Communication system portion and SLDC system retained by the Petitioner after formation of POSOCO) in the North Eastern Region.

#### 2. The Petitioner has made the following prayers in the instant Petition:

- "1) Approve the Trued up Fees and charges for the communication system and SLDC system for the period 2014-19 covered under this petition, as per Para-8 above;
- 2) Approve the Fees and charges for the communication system and SLDC system. for the period 2019-24 covered under this petition, as per Para-9 above;
- 3) Allow the petitioner to recover the tax from the beneficiaries separately.
- 4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure ( if any) in relation to the filing of petition.
- 5) Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.
- 6) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.
- 7) Allow the petitioner to claim O&M expenses as per norms to be notified by Hon'ble Commission at the time of truing up.
- 8) Allow the Petitioner to bill and recover the Charges for 2014-19 and 2019-24, for communication system forming part of transmission system to be shared by beneficiaries or long term transmission customers in accordance with the sharing regulations.
- 9) Allow the Petitioner to bill and recover the Charges for 2014-19 and 2019-24, for communication system other than central transmission system to be shared by beneficiaries in proportion to the capital cost belonging to respective beneficiaries...

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"

#### Background

- 3. The brief facts of the case are as follows:
  - a. The Investment Approval (IA) was accorded by Ministry of Power (MoP), Government of India, vide letter dated 21.8.1997 at an estimated cost of ₹16783 lakh, including IDC of ₹2306 lakh based on 4th Quarter of 1996 price level. During execution of the Scheme, there was an increase in the cost on account of change in scope of approved items of work, Foreign Exchange Variation and other reasons. Accordingly, based recommendations of Public Investment Board, the Central Government vide its letter dated 31.3.2003, accorded its fresh approval to the Revised Cost Estimate of ₹26381 lakh, including IDC of ₹3460 lakh, consisting of (i) PowerGrid's portion of ₹25036 lakh, including IDC of ₹3182 lakh and (ii) States` portion of ₹1344 lakh, including IDC of ₹278 lakh, based on 2<sup>nd</sup> Quarter 2002 price level.
  - b. The Petitioner who was earlier operating the Regional Load Despatch Centres (RLDCs) devised a scheme called the Unified Load Despatch and Communication Scheme (the Scheme) for all the five Regions with the objective of strengthening the load despatch infrastructure and augmenting communication system for efficient discharge of load despatch functions. The Scheme covered investment in RLDCs at the Central level and the State Load Despatch Centres (SLDCs) in the beneficiary States in the Region.
  - c. The assets under the Scheme were declared under commercial operation on 1.8.2003.
  - d. The Petitioner while claiming the cost of Unified Load Despatch and Communication (ULDC) schemes during the earlier tariff control periods submitted that the tariff regulations framed by the Commission were not suitable for recovery of cost of the ULDC Scheme from beneficiaries and proposed a levelised tariff meaning thereby that a uniform amount would be recovered for a period of 15 years. Accordingly, the Commission had approved the recovery of loan and equity, corresponding to 2001-04, 2004-09 and 2009-14 tariff periods and the subsequent additional capital expenditure during those periods, based on the weighted average rate of interest and

- Return on Equity using Capital Recovery Factor for loan and equity respectively for 15 years.
- e. As per the directive of MoP dated 4.7.2008, Power System Operation Corporation Limited (POSOCO), a wholly owned subsidiary of the Petitioner, responsible for operation of National Load Despatch Centre and RLDCs, was established. The Government of India had constituted a Task Force to look into the financial aspects for augmentation and up-gradation of the State Load Despatch Centres and issues related to emoluments for the personnel operation. The Task Force engaged in system made recommendations with regard to the ownership of the assets. Subsequent to the Task Force's report, PowerGrid constituted Committees at the regional level to identify the assets to be transferred to POSOCO. As per the directions of the Committees, the assets directly related to discharge of load despatch functions raised by the Petitioner under the Scheme have been transferred to POSOCO. The Petitioner was left with the assets associated with the communication system under the Central portion of the Scheme and assets for SLDCs (the States' portion). Based on the recommendations of the Committees, the assets under the ULDC Scheme were transferred to POSOCO and to the Petitioner vide Commission"s order dated 8.12.2011 in Petition No. 68/2010 in the following manner:-

#### (A) Assets transferred to POSOCO:

- (i) EMS/SCADA system (computer system, hardware and software)
- (ii) Auxillary power supply system comprising of uninterrupted power supply, diesel generating set etc.
- (iii) Building and civil works.

### (B) Assets which remain with the Petitioner

#### I. Central Portion

- (i) Fibre Optic Cables (overhead and underground)
- (ii) Fibre Optic Communication Equipment
- (iii) Digital Microwave Communication System (Tower, Antenna, Equipment etc.)
- (iv) PABX
- (v) Power Line Carrier Communication System;
- (vi) Auxillary power supply system.

## II. State Portion: Entire state portion which consists of the following equipment remains with the Petitioner:

- (i) EMS/SCADA system
- (ii) Fibre Optic System
- (iii) Digital Microwave Communication System (Tower, Antenna, Equipment etc.)
- (iv) PABX
- (v) Power Line Carrier Communication System

Auxillary power supply system (part)

- f. The Commission had approved the charges for the period 2001-04 *vide* order dated 20.9.2005 in Petition No.30/2004 for the expenditure incurred as on COD. Subsequently, vide order dated 3.2.2009 in Petition No. 147/2005, the revised charges for the period 2004-09 for the expenditure incurred from 1.4.2004 to 31.3.2005 was approved. Later, the Commission, vide order dated 17.3.2011 in Petition No 40/2010, revised the charges for the period 2004-09 for the expenditure incurred from 1.4.2005 to 31.3.2009. Further, the Commission approved the fees and charges for the 2009-14 tariff period vide its order dated 22.2.2014 in Petition No. 61/TT/2012 which were subsequently trued-up vide order dated 15.12.2017 in Petition No. 17/TT/2015.
- a. Further, the Commission vide its afore-mentioned order dated 8.12.2011 in Petition No. 68/2010 had decided to continue with the levelised tariff for the existing assets in the absence of any provision in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 regarding determination of tariff of communication system and ULDC system of the Petitioner. Accordingly, the fee and charges for 2009-14 tariff period were determined for all the regions. The relevant portion of the Commission"s order dated 8.12.2011 in Peittion No. 68/2010 is as follows:

"It clearly emerges from the above judgment that the Central Commission can specify the terms and conditions of tariff even in the absence of the regulations. Since no regulation was specified for determination of tariff of the communication system and the ULDC system, the Commission determined the tariff of these assets during the period 2004-09 on levelised basis by adopting some of the parameters of 2004 tariff regulations. We have decided to continue with the levelised tariff for the existing assets in the absence of any provision in 2009 regulations regarding determination of tariff of communication system and ULDC system of the petitioner. For the new assets, the tariff will be decided as per the regulations for communication systems to be framed. Accordingly, we

- direct the staff of the Commission to take necessary action to prepare draft regulations for determination of tariff for the communication system and ULDC system of the petitioner."
- h. The Petitioner filed Petition No. 32/MP/2011 for approval of implementation of expansion/replacement of SCADA/EMS system for SLDCs in Northern Region. The Commission while approving the replacement/up-gradation of SCADA/EMS system for SLDC system further observed vide order dated 28.12.2011 that the Petitioner can implement the schemes in accordance with agreements with the beneficiaries in the respective Regional Power Committees. Accordingly, the Petitioner obtained the approval of RPCs for expansion/up-gradation of SCADA/EMS system in WRPC, SRPC, ERPC and NERPC. However, while granting approval of up-gradation project for Northern Region, the Commission directed the Petitioner to ensure that the projects for RLDC and SLDCs in respective regions be implemented in an integrated and compatible manner to obviate any operational difficulties in future. The Commission further directed the Petitioner to implement all the schemes in a coordinated manner within the same time frame to achieve optimization of cost and economies of scale.
- The Respondents are distribution licensees and power departments, which are 4. procuring transmission service from the Petitioner, mainly beneficiaries of the North Eastern Region.
- 5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. None of the Respondents have filed any reply in the matter.
- 6. This order is issued considering the submissions made by the Petitioner dated 31.12.2019, 8.9.2021 and 4.10.2021.
- 7. The hearing in this matter was held on 10.9.2021 through video conference and the order was reserved.

8. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the petition.

#### TRUING UP OF FEES AND CHARGES FOR THE 2014-19 TARIFF PERIOD

- 9. As per the directions of the Commission in order dated 8.12.2011 in Petition No. 68/2010, the scope of the 2014 Tariff Regulations has been widened to include the communication system used for inter-State transmission of electricity. However, as per proviso (iii) of Regulation 6(1) of the 2014 Tariff Regulations, the tariff of the existing communication system forming part of the transmission system is to be determined as per the methodology followed prior to 1.4.2014. The said proviso (iii) of Regulation 6(1) provides as follows:
  - "(iii) the tariff of the existing communication system forming part of transmission system shall be as per the methodology followed by the Commission prior to 1.4.2014."
- 10. The instant assets were put into commercial operation before 1.4.2009 and the capital cost of Microwave system has been fully recovered during 2009-14. In view of above provision in the 2014 Tariff Regulations, we continue to allow levelised tariff for the Non-Microwave system as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No. 68/2010. Accordingly, the true-up of the annual fee and charges of Non-Microwave system for 2014-19 period is considered by the Commission in this order.
- 11. The details of the annual fees and charges claimed by the Petitioner in respect of the instant assets is as follows:

|                                    | Particulars 2014-15 2015-16 2016-17 |           |              |                     | 2018-19                            |        |  |
|------------------------------------|-------------------------------------|-----------|--------------|---------------------|------------------------------------|--------|--|
| Particulars                        |                                     |           | 2017-18      | (Upto<br>31.7.2018) | (From<br>1.4.2018 to<br>31.3.2019) |        |  |
|                                    | No                                  | n-Microwa | ve Central I | Portion             |                                    |        |  |
| Annual Capital<br>Recovery Charges | 117.49                              | 117.11    | 116.15       | 116.15              | 38.72                              | 0.00   |  |
| O&M Expenses                       | 314.38                              | 277.17    | 288.37       | 258.43              | 131.13                             | 262.26 |  |
| Interest on Working Capital        | 20.07                               | 18.01     | 18.60        | 16.95               | 8.14                               | 14.49  |  |
| Total                              | 451.95                              | 412.28    | 423.12       | 391.53              | 177.98                             | 276.75 |  |

(₹ in lakh)

| Particulars                       | 2014-15 | 2015-16 | 2016-17<br>(Upto 31.5.2016) |  |  |  |  |  |
|-----------------------------------|---------|---------|-----------------------------|--|--|--|--|--|
| Non-Microwave State SCADA Portion |         |         |                             |  |  |  |  |  |
| Annual Capital Recovery Charges   | 9.02    | 9.01    | 1.50                        |  |  |  |  |  |
| O&M Expenses                      | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |
| Interest on Working Capital       | 0.21    | 0.21    | 0.03                        |  |  |  |  |  |
| Total                             | 9.23    | 9.22    | 1.54                        |  |  |  |  |  |

(₹ in lakh)

| Particulars   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19<br>(Upto 31.7.2018) |  |  |  |
|---|---------|---------|---------|---------|-----------------------------|--|--|--|
| Non-Microwave State portion (Balance portion after replacing SCADA/EMS) |         |         |         |         |                             |  |  |  |
| Annual Capital<br>Recovery Charges                                      | 77.46   | 77.21   | 76.57   | 76.57   | 25.52                       |  |  |  |
| O&M Expenses  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00                        |  |  |  |
| Interest on Working<br>Capital  | 1.78    | 1.78    | 1.76    | 1.76    | 0.59                        |  |  |  |
| Total   | 79.24   | 78.98   | 78.33   | 78.33   | 26.11                       |  |  |  |

12. The details of the IWC claimed by the Petitioner for the transmission asset is as follows:

|   |                 |           |            |         | 2018-19             |                                    |  |
|---|-----------------|-----------|------------|---------|---------------------|------------------------------------|--|
| Particulars 2                           | 2014-15 2015-16 |           | 2016-17    | 2017-18 | (Upto<br>31.7.2018) | (From<br>1.4.2018 to<br>31.3.2019) |  |
|   | Non-            | Microwave | Central Po | ortion  |                     |                                    |  |
| WC for O&M<br>Expenses                  | 26.20           | 23.10     | 24.03      | 21.54   | 59.01               | 59.01                              |  |
| WC for Maintenance<br>Spares            | 47.16           | 41.58     | 43.26      | 38.76   | 32.78               | 32.78                              |  |
| WC for Receivables                      | 75.32           | 68.71     | 70.52      | 65.25   | 88.99               | 69.19                              |  |
| Total Working<br>Capital                | 148.68          | 133.39    | 137.81     | 125.55  | 180.78              | 160.98                             |  |
| Rate of Interest on working capital (%) | 13.50           | 13.50     | 13.50      | 13.50   | 13.50               | 13.50                              |  |
| Interest on Working Capital             | 20.07           | 18.01     | 18.60      | 16.95   | 8.14                | 14.49                              |  |

(₹ in lakh)

| Particulars                             | 2014-15 | 2015-16 | 2016-17<br>(Upto 31.5.2016) |  |  |  |  |  |
|---|---------|---------|-----------------------------|--|--|--|--|--|
| Non-Microwave State SCADA Portion       |         |         |                             |  |  |  |  |  |
| WC for O&M Expenses                     | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |
| WC for Maintenance Spares               | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |
| WC for Receivables                      | 1.54    | 1.54    | 0.26                        |  |  |  |  |  |
| Total Working Capital                   | 1.54    | 1.54    | 0.26                        |  |  |  |  |  |
| Rate of Interest on working capital (%) | 13.50%  | 13.50%  | 13.50%                      |  |  |  |  |  |
| Interest on Working Capital             | 0.21    | 0.21    | 0.03                        |  |  |  |  |  |

(₹ in lakh)

| Particulars                             | 2014-15       | 2015-16        | 2016-17        | 2017-18    | 2018-19<br>(Upto<br>31.7.2018) |
|---|---------------|----------------|----------------|------------|--------------------------------|
| Non-Microwave Sta                       | te portion (B | alance portion | on after repla | cing SCADA | /EMS)                          |
| WC for O&M Expenses                     | 0.00          | 0.00           | 0.00           | 0.00       | 0.00                           |
| WC for Maintenance<br>Spares            | 0.00          | 0.00           | 0.00           | 0.00       | 0.00                           |
| WC for Receivables                      | 13.21         | 13.16          | 13.06          | 13.06      | 4.35                           |
| Total Working Capital                   | 13.21         | 13.16          | 13.06          | 13.06      | 4.35                           |
| Rate of Interest on working capital (%) | 13.50%        | 13.50%         | 13.50%         | 13.50%     | 13.50%                         |
| Interest on Working<br>Capital          | 1.78          | 1.78           | 1.76           | 1.76       | 0.59                           |

## **Capital Cost**

The details of capital cost approved vide order dated 15.12.2017 in Petition 13. No. 17/TT/2015 as on 1.4.2014 are as follows:

(₹ in lakh)

|  |             |                    | State Portion          |  |                |  |  |
|--|-------------|--------------------|------------------------|--|----------------|--|--|
| Particulars  | Capital     | Central<br>Portion | Replaced<br>SCADA/ EMS | Remaining Existing assets  | Total          |  |  |
| Retained Gross<br>Capital Cost as<br>on 1.4.2014   | Deemed Loan | 872.22             | 42.09                  | Retained Gross<br>Capital Cost<br>as on 1.4.2014   | Deemed<br>Loan |  |  |
| Salvage Value for  | Total       | 872.22             | 42.09                  | 5051.42  | Total          |  |  |
| state portion only<br>(5% of Gross<br>Capital<br>Cost)   | Deemed Loan | 0.00               | 2.10                   | Salvage Value<br>for state portion<br>only (5% of<br>Gross Capital<br>Cost)  | Deemed<br>Loan |  |  |
| Pro-rata Capital   | Total       | 0.00               | 2.10                   | 310.67   | Total          |  |  |
| Cost Recovered up to 31.3.2014 Recoverable Capital Cost for "replaced SCADA/EMS State portion (95% of Gross Capital Cost) as on 1.4.2014 | Deemed Loan | 872.22             | 39.98                  | Recoverable<br>Capital Cost for<br>"replaced<br>SCADA/EMS<br>State portion<br>(95% of Gross<br>Capital Cost)<br>as on 1.4.2014 | Deemed<br>Loan |  |  |
| Salvage Value for  | Total       | 872.22             | 39.98                  | 0.00   | Total          |  |  |
| state portion only<br>(5% of Gross<br>Capital<br>Cost)<br>Pro-rata Capital<br>Cost Recovered<br>up to 31.3.2014                          | Deemed Loan | 466.35             | 22.61                  | Pro-rata Capital<br>Cost Recovered<br>up to 31.3.2014  | Deemed<br>Loan |  |  |
| Net  | Total       | 466.35             | 22.61                  | 267.58   | Total          |  |  |
| Capital Cost as<br>on 1.4.2014<br>Net<br>Capital Cost<br>as on 1.4.2014  | Deemed Loan | 405.87             | 17.38                  | Net<br>Capital Cost<br>as on 1.4.2014  | Deemed<br>Loan |  |  |

The details of capital cost as on 1.4.2014 claimed by the Petitioner in the 14. instant petition are as follows:

(₹ in lakh)

|   |         | Central | 5                  | State portion      |        |
|---|---------|---------|--------------------|--------------------|--------|
| Particulars   | Capital | portion | Replaced SCADA/EMS | Existing<br>Assets | Total  |
| Retained gross  | Loan    | 872.22  | 42.09              | 578.04             | 620.13 |
| capital cost<br>as on 1.4.2014                                      | Total   | 872.22  | 42.09              | 578.04             | 620.13 |
| Salvage Value for state portion only                                | Loan    | 0.00    | 2.10               | 0.00               | 2.10   |
| (5% of Gross Capital Cost)  | Total   | 0.00    | 2.10               | 0.00               | 2.10   |
| Recoverable Capital Cost (for "replaced                             | Loan    | 872.22  | 39.98              | 578.04             | 618.02 |
| SCADA/EMS-state Portion - 95% of Gross capital cost) as on 1.4.2014 | Total   | 872.22  | 39.98              | 578.04             | 618.02 |
| Pro rata Capital Cost   | Loan    | 466.35  | 22.61              | 310.47             | 333.07 |
| recovered<br>upto 31.3.2014   | Total   | 466.35  | 22.61              | 310.47             | 333.07 |
| Net Capital Cost  | Loan    | 405.87  | 17.38              | 267.58             | 284.94 |
| as on 1.4.2014  | Total   | 405.87  | 17.38              | 267.58             | 284.94 |

15. We have considered the submissions made by the Petitioner. As per the directions of the Commission in order dated 2.3.2017 in Petition No. 188/MP/2014 to recover 95% of depreciable value of the replacing assets, before completion of their useful life, as accelerated depreciation matching with the commissioning schedule of the new SCADA system, the following net capital cost has been considered as on 1.4.2014 for truing up of the fee and charges for the period 2014-19 for Central as well as "Replaced SCADA/EMS-State Portion" and the remaining "Existing Assets-State Portion" for "Non-Microwave System":

|   |         | Central State portion |                    |                    | <u> </u> |
|---|---------|-----------------------|--------------------|--------------------|----------|
| Particulars   | Capital | portion               | Replaced SCADA/EMS | Existing<br>Assets | Total    |
| Retained gross  | Loan    | 872.22                | 42.09              | 578.04             | 620.13   |
| capital cost<br>as on 1.4.2014                                      | Total   | 872.22                | 42.09              | 578.04             | 620.13   |
| Salvage Value for state portion only                                | Loan    | 0.00                  | 2.10               | 0.00               | 2.10     |
| (5% of Gross Capital<br>Cost)                                       | Total   | 0.00                  | 2.10               | 0.00               | 2.10     |
| Recoverable Capital Cost (for "replaced                             | Loan    | 872.22                | 39.98              | 578.04             | 618.02   |
| SCADA/EMS-state Portion - 95% of Gross capital cost) as on 1.4.2014 | Total   | 872.22                | 39.98              | 578.04             | 618.02   |
| Pro rata Capital Cost   | Loan    | 466.35                | 22.61              | 310.47             | 333.07   |
| recovered<br>upto 31.3.2014   | Total   | 466.35                | 22.61              | 310.47             | 333.07   |
| Net Capital Cost  | Loan    | 405.87                | 17.38              | 267.58             | 284.94   |
| as on 1.4.2014  | Total   | 405.87                | 17.38              | 267.58             | 284.94   |

### Additional Capital Expenditure (ACE)

16. The Petitioner has not claimed any ACE for the 2014-19 tariff period. Accordingly, the Commission has not approved any ACE in the 2014-19 tariff period.

#### Rates for recovery of capital

17. The year wise weighted average rate of interest has been calculated on the basis of the impact due to change in floating rate of interest of loan which have been applied for calculating the capital recovery factor for loan. The details of the weighted average rate of interest are placed in Annexure-I.

#### **Monthly Capital Recovery Charges**

18. The monthly Capital Recovery Factors for loan has been worked out using the following relationship:

Recovery Factor = 
$$\frac{i*(1+i)^n}{(1+i)^{n-1}}$$
 n=period and i=rate

- 19. The COD of the instant ULDC scheme was 1.8.2003. The Commission had approved the recovery of deemed loan, corresponding to 2003-04, 2004-09 and 2009-14 tariff periods and subsequent add-cap during those periods, based on the weighted average rate of interest using capital recovery factor for loan for 15 years. Accordingly, accelerated depreciation of the Net Capital Cost as on 1.4.2014 for the Central portion and "Remaining Existing assets-State portion" has been recovered up to 31.7.2018. Further, the Commission vide order dated 15.12.2017 in Petition No. 17/TT/2015 has adopted the date of 31.5.2016 as the date for the recovery of accelerated depreciation of "Replaced SCADA/EMS-State Portion".
- 20. Accordingly, the monthly recovery factors for loan for central portion as well as "Replaced SCADA/EMS-State Portion" and the remaining "Existing Assets-State Portion" for "Non-Microwave System" have been arrived as follows:

| Particulars   | 2014-15  | 2015-16  | 2016-17  | 2017-18  | 2018-19  |
|---|----------|----------|----------|----------|----------|
| Non-Microwave – Central Portion                           | 0.024124 | 0.029742 | 0.040095 | 0.066924 | 0.255122 |
| Non-Microwave – Replaced SCADA / EMS – State Portion      | 0.043269 | 0.076209 | 0.506129 |          |          |
| Non-Microwave – Remaining Existing Assets – State Portion | 0.024124 | 0.029742 | 0.040095 | 0.066924 | 0.255122 |

21. Based on the above recovery factors, the monthly capital recovery charges for loan for Central as well as State portion corresponding to "Non-Microwave System" have been arrived as follows:

(₹ in lakh)

| Particulars   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| Non-Microwave – Central Portion                           | 9.79    | 9.76    | 9.68    | 9.68    | 9.68    |
| Non-Microwave – Replaced SCADA / EMS – State Portion      | 0.75    | 0.75    | 0.75    |         |         |
| Non-Microwave – Remaining Existing Assets – State Portion | 6.46    | 6.43    | 6.38    | 6.38    | 6.38    |

22. While working out the capital recovery charges for loan, the weighted average rate of interest have been considered. Accordingly, the following recovery of capital during 2014-19 has been worked out as follows:

(₹ in lakh)

|                          |         | Central | State portion      |                    |        |  |
|--------------------------|---------|---------|--------------------|--------------------|--------|--|
| Particulars              | Capital | portion | Replaced SCADA/EMS | Existing<br>Assets | Total  |  |
| Capital Cost             | Loan    | 405.87  | 17.38              | 267.58             | 284.94 |  |
| Recovered during 2014-19 | Total   | 405.87  | 17.38              | 267.58             | 284.94 |  |

23. The accelerated depreciation in respect of "Replaced SCADA/EMS-State Portion" is being recovered up to 31.5.2016. Further, the assets corresponding to "Central Portion" as well as the remaining "Existing Assets-State Portion" for "Non Microwave System" shall be completing 15 years on 31.7.2018 and, therefore, the capital cost thereof shall be recovered as on that date.

#### **Operation & Maintenance Expenses (O&M Expenses)**

24. The O&M Expenses claimed by the Petitioner for the instant assets and the O&M Expenses allowed by the Commission vide order dated 15.12.2017 in Petition No. 17/TT/2015 are as follows:

| Particulars   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---------|---------|---------|---------|---------|
| O&M Expenses allowed vide order dated 15.12.2017 in Petition No. 17/TT/2015 | 333.98  | 345.07  | 356.53  | 368.36  | 380.59  |
| O&M Expenses claimed in instant petition as per actuals                     | 314.38  | 277.17  | 288.37  | 258.43  | 393.39  |

- 25. The Petitioner has claimed the O&M Expenses for the assets under the Central portion and has submitted the Auditor's Certificate in support of the same. The Petitioner further submitted that the ULDC Scheme in North Eastern Region was put into commercial operation on 1.8.2003 and the entire capital cost of the scheme was recovered by 31.7.2018. Accordingly, for the remaining period in the 2014-19 tariff block, only O&M Charges and Interest on Working Capital for the Central portion is claimed.
- 26. We have considered the submissions made by the Petitioner. The Petitioner has submitted the Auditor Certificate dated 18.10.2019 and has submitted the actual O&M Expesnes The Petitioner has claimed the self-insurance, petition filing fee & Other Charges, Expenditure on Corporate Social Responsibility and Advertisement & Publicity charges as part of the O&M Expenses.
- 27. As regards self-insurance, the Commission vide order dated 29.7.2016 in Petition No. 275/TT/2015 had considered the Petitioner's claim towards self-insurance and disallowed the same. The relevant portion of the said order is as follows:
  - "45. The petitioner was directed vide RoP dated 22.3.2016, to submit the actual O&M Expenses year wise along with details. In response, the petitioner vide affidavit dated 29.6.2016 has submitted that actual O&M Expenses for 2014-15 towards Asset-I and II are ₹5.75 lakh and ₹4.46 lakh respectively. Break up of O&M Expenses has also been provided vide Auditor's Certificate dated 15.6.2016. The petitioner has claimed selfinsurance reserved as expenses under O&M Expenses which is not allowable as expenses."

Therefore, the Petitioner's claim towards self-insurance is not allowed.

- 28. Further, the Petitioner has also claimed the petition filing charges as part of the O&M Expenses, which has to be claimed directly from the beneficiaries, therefore, the same are not allowable under O&M Expenses and accordingly has been disallowed.
- 29. The Petitioner has also claimed the expenditure as part of Corporate Social Responsibility and Advertisement & Publicity charges as part of the O&M Expenses, which are not allowable as O&M Expenses and therefore has been disallowed.
- 30. Accordingly, the O&M Expenses are allowed for the 2014-19 as per the Auditor's Certificate after deducting the disallowed items are as follows:

| Particulars  | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19<br>(Upto<br>31.7.2018) | 2018-19<br>(from<br>1.8.2018 to<br>31.3.2019) |
|--|---------|---------|---------|---------|--------------------------------|---|
| O&M Expenses claimed by the Petitioner               | 314.38  | 277.17  | 288.37  | 258.43  |                                | 393.39  |
| Less: Self Insurance                                 | 8.94    | 8.94    | 10.73   | 10.73   |                                | 10.73   |
| Less: CERC Petition & Other Charges                  | 1.16    | 0.39    | 0.00    | 0.00    |                                | 0.00  |
| Less: Advertisement & Publicity                      | 0.79    | 0.13    | 0.17    | 0.00    |                                | 0.00  |
| Less: Expenditure on Corporate Social Responsibility | 1.24    | 2.66    | 0.00    | 0.00    |                                | 0.00  |
| O&M Expenses allowed for the Central Portion         | 302.25  | 265.05  | 277.47  | 247.70  | 127.55                         | 255.11  |

#### **Interest on Working Capital (IWC)**

31. The following trued-up IWC has been approved for the transmission asset as follows:

|                              |         |           |            |         | 201                 | 8-19                               |
|------------------------------|---------|-----------|------------|---------|---------------------|------------------------------------|
| Particulars                  | 2014-15 | 2015-16   | 2016-17    | 2017-18 | (Upto<br>31.7.2018) | (From<br>1.8.2018 to<br>31.3.2019) |
|                              | Non-    | Microwave | Central Po | rtion   |                     |                                    |
| WC for O&M<br>Expenses       | 45.34   | 39.76     | 41.62      | 37.16   | 57.40               | 57.40                              |
| WC for Maintenance<br>Spares | 25.19   | 22.09     | 23.12      | 20.64   | 31.89               | 31.89                              |
| WC for Receivables           | 73.19   | 66.58     | 68.60      | 63.37   | 87.10               | 67.30                              |
| Total Working<br>Capital     | 143.72  | 128.43    | 133.35     | 121.16  | 176.39              | 156.59                             |
| Rate of IWC (%)              | 13.50%  | 13.50%    | 13.50%     | 13.50%  | 13.50%              | 13.50%                             |
| Interest on Working Capital  | 19.40   | 17.34     | 18.00      | 16.36   | 23.81               | 21.14                              |
| Pro-rata IWC                 | 19.40   | 17.34     | 18.00      | 16.36   | 7.94                | 14.09                              |

(₹ in lakh)

| Particulars                       | 2014-15 | 2015-16 | 2016-17<br>(Upto 31.5.2016) |  |  |  |  |  |  |
|-----------------------------------|---------|---------|-----------------------------|--|--|--|--|--|--|
| Non-Microwave State SCADA Portion |         |         |                             |  |  |  |  |  |  |
| WC for O&M Expenses               | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |  |
| WC for Maintenance Spares         | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |  |
| WC for Receivables                | 1.54    | 1.54    | 1.53                        |  |  |  |  |  |  |
| Total Working Capital             | 1.54    | 1.54    | 1.53                        |  |  |  |  |  |  |
| Rate of IWC (%)                   | 13.50%  | 13.50%  | 13.50%                      |  |  |  |  |  |  |
| IWC                               | 0.21    | 0.21    | 0.21                        |  |  |  |  |  |  |
| Pro-rata IWC                      | 0.21    | 0.21    | 0.03                        |  |  |  |  |  |  |

(₹ in lakh)

| Particulars                             | 2014-15        | 2015-16       | 2016-17        | 2017-18     | 2018-19<br>(Upto<br>31.7.2018) |
|---|----------------|---------------|----------------|-------------|--------------------------------|
| Non-Microwave Stat                      | te portion (Ba | alance portio | n after replac | cing SCADA/ | 'EMS)                          |
| WC for O&M Expenses                     | 0.00           | 0.00          | 0.00           | 0.00        | 0.00                           |
| WC for Maintenance<br>Spares            | 0.00           | 0.00          | 0.00           | 0.00        | 0.00                           |
| WC for Receivables                      | 13.21          | 13.16         | 13.06          | 13.06       | 13.06                          |
| Total Working Capital                   | 13.21          | 13.16         | 13.06          | 13.06       | 13.06                          |
| Rate of Interest on working capital (%) | 13.50%         | 13.50%        | 13.50%         | 13.50%      | 13.50%                         |
| IWC                                     | 1.78           | 1.78          | 1.76           | 1.76        | 1.76                           |
| Pro-rata IWC                            | 1.78           | 1.78          | 1.76           | 1.76        | 0.59                           |

#### Approved Annual Fees and Charges for the 2014-19 Tariff Period

32. The trued-up annual fees and charges approved for the 2014-19 tariff period in respect of the transmission assets are provided in Annexure II and are as follows:

(₹ in lakh)

|                                    |         |         |               |         | 201                 | 8-19                               |  |  |  |  |
|------------------------------------|---------|---------|---------------|---------|---------------------|------------------------------------|--|--|--|--|
| Particulars                        | 2014-15 | 2015-16 | 2016-17 2017- | 2017-18 | (Upto<br>31.7.2018) | (From<br>1.8.2018 to<br>31.3.2019) |  |  |  |  |
| Non-Microwave Central Portion      |         |         |               |         |                     |                                    |  |  |  |  |
| Annual Capital<br>Recovery Charges | 117.49  | 117.11  | 116.15        | 116.15  | 38.72               | 0.00                               |  |  |  |  |
| O&M Expenses                       | 302.25  | 265.05  | 277.47        | 247.70  | 127.55              | 255.11                             |  |  |  |  |
| IWC                                | 19.40   | 17.34   | 18.00         | 16.36   | 7.94                | 14.09                              |  |  |  |  |
| Total                              | 439.15  | 399.50  | 411.62        | 380.20  | 174.21              | 269.20                             |  |  |  |  |

(₹ in lakh)

| Particulars                       | 2014-15 | 2015-16 | 2016-17<br>(Upto 31.5.2016) |  |  |  |  |  |  |
|-----------------------------------|---------|---------|-----------------------------|--|--|--|--|--|--|
| Non-Microwave State SCADA Portion |         |         |                             |  |  |  |  |  |  |
| Annual Capital Recovery Charges   | 9.02    | 9.01    | 1.50                        |  |  |  |  |  |  |
| O&M Expenses                      | 0.00    | 0.00    | 0.00                        |  |  |  |  |  |  |
| IWC                               | 0.21    | 0.21    | 0.03                        |  |  |  |  |  |  |
| Total                             | 9.23    | 9.22    | 1.53                        |  |  |  |  |  |  |

(₹ in lakh)

| Particulars   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19<br>(Upto 31.7.2018) |  |  |  |  |
|---|---------|---------|---------|---------|-----------------------------|--|--|--|--|
| Non-Microwave State portion (Balance portion after replacing SCADA/EMS) |         |         |         |         |                             |  |  |  |  |
| Annual Capital<br>Recovery Charges                                      | 77.46   | 77.21   | 76.57   | 76.57   | 25.52                       |  |  |  |  |
| O&M Expenses  | 0.00    | 0.00    | 0.00    | 0.00    | 0.00                        |  |  |  |  |
| IWC   | 1.78    | 1.78    | 1.76    | 1.76    | 0.59                        |  |  |  |  |
| Total   | 79.24   | 78.98   | 78.33   | 78.33   | 26.11                       |  |  |  |  |

# <u>DETERMINATION OF ANNUAL FEES AND CHARGES FOR THE 2019-24 TARIFF PERIOD</u>

33. The Petitioner has submitted that the entire capital cost of the assets covered under the instant petition has been recovered during the 2014-19 tariff period. Therefore, only O&M Expenses for the Central Portion and consequential IWC have been claimed as part of fees and charges for the 2019-24 tariff period.

34. The Petitioner has claimed the following annual fees and charges for the 2019-24 tariff period for the instant assets:

(₹ in lakh)

| Particulars                        | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|------------------------------------|---------|---------|---------|---------|---------|
| Annual Capital Recovery<br>Charges | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| O&M Expenses                       | 168.19  | 168.19  | 168.19  | 168.19  | 168.19  |
| Interest on Working Capital        | 7.33    | 7.34    | 7.34    | 7.34    | 7.33    |
| Total                              | 175.52  | 175.53  | 175.53  | 175.53  | 175.52  |

35. The details of the IWC claimed by the Petitioner for the 2019-24 period for the transmission asset are as follows:

(₹ in lakh)

|   |         |         |         |         | 1 1     |
|---|---------|---------|---------|---------|---------|
| Particulars                             | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
| WC for O&M Expenses                     | 14.02   | 14.02   | 14.02   | 14.02   | 14.02   |
| WC for Maintenance Spares               | 25.23   | 25.23   | 25.23   | 25.23   | 25.23   |
| WC for Receivables                      | 21.58   | 21.64   | 21.64   | 21.64   | 21.58   |
| Total Working Capital                   | 60.83   | 60.89   | 60.89   | 60.89   | 60.83   |
| Rate of Interest on working capital (%) | 12.05%  | 12.05%  | 12.05%  | 12.05%  | 12.05%  |
| Interest on Working Capital             | 7.33    | 7.34    | 7.34    | 7.34    | 7.33    |

36. We have considered the submissions made by the Commission. The COD of the instant ULDC scheme was 1.8.2003. The Commission had approved the recovery of deemed loan, corresponding to 2003-04, 2004-09 and 2009-14 tariff periods and subsequent add-cap during those periods, based on the weighted average rate of interest using capital recovery factor for loan for 15 years. Accordingly, accelerated depreciation of the Net Capital Cost as on 1.4.2014 for the Central portion and "Remaining Existing assets-State portion" has been recovered up to 31.7.2018. Further, the accelerated depreciation of "Replaced SCADA/EMS-State Portion" has been recovered up to 31.5.2016.

37. Therefore, only the O&M Expenses for the Central Portion along with the consequential IWC have been allowed as part of the approved fees and charges for the 2019-24 tariff period.

### Operation & Maintenance Expenses (O&M Expenses)

38. The O&M Expenses claimed by the Petitioner for the instant asset for the 2019-24 tariff period are as follows:

| O&M Expenses  |         |         |         |         |         |  |  |  |
|---|---------|---------|---------|---------|---------|--|--|--|
|   | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |  |  |  |
| Gross Capital Cost (₹ in lakh)<br>(2% of ₹8409.62 lakh) | 168.19  | 168.19  | 168.19  | 168.19  | 168.19  |  |  |  |
| Total O&M Expenses (₹ in lakh)                          | 168.19  | 168.19  | 168.19  | 168.19  | 168.19  |  |  |  |

39. We have considered the submission of the Petitioner. The O&M Expenses as claimed by the Petitioner are allowed for the 2019-24 tariff period subject to truing up. The Petitioner is directed to submit the actual O&M Expenses duly certified by the Auditor at the time truing up of the tariff of the 2019-24 tariff. The O&M expenses allowed are as follows:

(₹ in lakh)

| Details            | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|--------------------|---------|---------|---------|---------|---------|
| Total O&M Expenses | 168.19  | 168.19  | 168.19  | 168.19  | 168.19  |

#### **Interest on Working Capital (IWC)**

- 40. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.
- 41. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (ROI) 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-

- 2021 and from 2021-22 onwards as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points).
- 42. The components of the working capital and interest thereon allowed are as follows:

| Particulars  | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|--|---------|---------|---------|---------|---------|
| WC for O&M Expenses (O&M Expenses for one month)                             | 14.02   | 14.02   | 14.02   | 14.02   | 14.02   |
| WC for Maintenance Spares (15% of O&M Expenses)                              | 25.23   | 25.23   | 25.23   | 25.23   | 25.23   |
| WC for Receivables<br>(Equivalent to 45 days of<br>annual transmission cost) | 21.58   | 21.58   | 21.52   | 21.52   | 21.46   |
| Total Working Capital  | 60.83   | 60.82   | 60.77   | 60.77   | 60.71   |
| Rate of Interest on working capital (%)                                      | 12.05   | 11.25   | 10.50   | 10.50   | 10.50   |
| Interest on Working Capital  | 7.33    | 6.84    | 6.38    | 6.38    | 6.37    |

#### Annual Fees and Charges for the 2019-24 Tariff Period

43. The annual fees and charges allowed for the transmission asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

| Particulars                     | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24 |
|---------------------------------|---------|---------|---------|---------|---------|
| Annual Capital Recovery Charges | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| O & M Expenses                  | 168.19  | 168.19  | 168.19  | 168.19  | 168.19  |
| Interest on Working Capital     | 7.33    | 6.84    | 6.38    | 6.38    | 6.37    |
| Total                           | 175.52  | 175.04  | 174.57  | 174.57  | 174.57  |

#### Filing Fee and the Publication Expenses

44. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication paid by the Petitioner. Accordingly, 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 Regulation 70(1) of the 2019 Tariff Regulations.

**Licence Fee & RLDC Fees and Charges** 

45. The Petitioner shall be entitled for reimbursement of licence fee in accordance

with Regulation 70(4) of the 2019 Tariff Regulations for 2019-24 tariff period. The

Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance

with Regulations 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

**Goods and Services Tax** 

46. The Petitioner has submitted that, if GST is levied at any rate and at any point

of time in future on charges of transmission of electricity, the same shall be borne and

additionally paid by the Respondent(s) to the Petitioner and the same shall be

charged and billed separately by the Petitioner. Further additional taxes, if any, are to

be paid by the Petitioner on account of demand from Government / Statutory

authorities, the same may be allowed to be recovered from the beneficiaries

47. We have considered the submissions of the Petitioner. Since GST is not levied

on transmission service at present, we are of the view that the Petitioner's prayer is

premature.

**Sharing of Fees and Charges** 

As regards sharing of annual fees and charges of ULDC Scheme, the 48.

Commission vide order dated 22.2.2014 in Petition No 61/TT/2012 held as follows:

"56. Accordingly, the fees and charges for the Central portion shall be shared by all concerned in accordance with Para 40 of the order dated 8.12.2011 read with

Regulation 22 (1) of Fees and Charges of Regional Load Despatch Centre and other related matters Regulations, 2009. The Regulation 22 (1) has been reproduced

hereunder:-

"The system operation charges shall be collected from the users as per the norms

given below:

Generating stations and sellers: 45% of system operation charges;

Distribution licensees and buyers: 45% of system operation charges:

Inter-state Transmission licensees: 10% of system operation charges"

**XXXXXX** 

Page 23 of 31

- 58. The fees and charges for the States' portion of the Scheme shall be shared by the States in proportion to capital cost incurred for SLDC portion for the respective State."
- 49. Accordginly, the fees and charges for 2014-19 and 2019-24 tariff periods shall be shared in terms of order dated 22.2.2014 in Petition No 61/TT/2012.
- 50. The fees and charges for the Unified Scheme under the Central Sector shall be recovered on monthly basis in accordance with Regulation 43 of the 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.

#### 51. To summarise:

(a) The trued-up Annual Fees and Charges approved for the transmission asset for the 2014-19 tariff period are:

(₹ in lakh)

|                       |                               |         |         |         | 2018-19             |                                    |  |  |  |
|-----------------------|-------------------------------|---------|---------|---------|---------------------|------------------------------------|--|--|--|
| Particulars           | 2014-15                       | 2015-16 | 2016-17 | 2017-18 | (Upto<br>31.7.2018) | (From<br>1.4.2018 to<br>31.3.2019) |  |  |  |
|                       | Non-Microwave Central Portion |         |         |         |                     |                                    |  |  |  |
| Annual Fees & Charges | 439.15                        | 399.50  | 411.62  | 380.20  | 174.21              | 269.20                             |  |  |  |

(₹ in lakh)

|                                   |         |         | ( Till lakili)              |  |  |  |
|-----------------------------------|---------|---------|-----------------------------|--|--|--|
| Particulars                       | 2014-15 | 2015-16 | 2016-17<br>(Upto 31.5.2016) |  |  |  |
| Non-Microwave State SCADA Portion |         |         |                             |  |  |  |
| Annual Fees & Charges             | 9.23    | 9.22    | 1.53                        |  |  |  |

(₹ in lakh)

| Particulars   | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19<br>(Upto 31.7.2018) |  |  |
|---|---------|---------|---------|---------|-----------------------------|--|--|
| Non-Microwave State portion (Balance portion after replacing SCADA/EMS) |         |         |         |         |                             |  |  |
| Annual Fees & Charges   | 79.24   | 78.98   | 78.33   | 78.33   | 26.11                       |  |  |

(b) The Annual Fees and Charges allowed for the transmission asset for the 2019-24 tariff period are:

|                       |         |         |         |         | <u>(₹ in lakh)</u> |
|-----------------------|---------|---------|---------|---------|--------------------|
| Particulars           | 2019-20 | 2020-21 | 2021-22 | 2022-23 | 2023-24            |
| Annual Fees & Charges | 175.52  | 175.04  | 174.57  | 174.57  | 174.57             |

- 52. Annexure-I and Annexure-II given hereinafter shall form part of this order.
- 53. This order disposes of Petition No. 102/TT/2020 in terms of the above discussions and findings.

sd/- sd/- sd/
(P. K. Singh) (Arun Goyal) (P.K. Pujari)

Member Member Chairperson

#### Annexure-I

#### Weighted Average Rate of Interest (for 2014-19) as submitted by the Petitioner (₹ in lakh) 2014-15 Weighted Opening Closing (Net O/S (Net O/S Average Rate of Loan Repayment Interest as on as on interest Rate of 1.4.2014) 1.4.2015) Interest Bond X 108.83 54.42 54.41 10.90% 8.90 Bond XI-I 76.25 25.42 50.83 9.80% 6.23 Bond XII 5.25 1.75 3.50 9.70% 0.42 OBC 11.75 12.35% 2.18 23.50 11.75 PNB II 14.08 11.60% 28.17 14.08 2.45 **Total Loan** 242.00 134.57 20.18 10.7152% 2015-16 Closing **Opening** Weighted (Net O/S (Net O/S Rate of **Average** Loan Repayment Interest as on as on interest Rate of 1.4.2015) 1.4.2016) Interest Bond X 54.41 54.42 0.00 10.90% 2.97 Bond XI-I 25.42 50.83 25.42 9.80% 3.74 Bond XII 3.50 1.75 1.75 9.70% 0.25 OBC 11.75 11.75 0.00 12.35% 0.73 PNB II 14.08 14.08 0.00 11.60% 0.82 Total Loan 134.57 27.17 8.50 10.5087% 2016-17 Weighted Opening Closing (Net O/S (Net O/S Rate of **Average** Repayment Loan Interest as on as on interest Rate of 1.4.2016) 1.4.2017) Interest Bond X 0.000.00 0.00 10.90% 0.00 Bond XI-I 25.42 25.42 0.00 9.80% 1.25 Bond XII 1.75 0.00 9.70% 0.08 1.75 OBC 0.00 0.00 0.00 12.35% 0.00 PNB II 0.00 0.00 0.00 11.60% 0.00 **Total Loan** 27.17 0.00 1.33 9.7936%

#### **Annexure-II**

# Non-Microwave: Central Portion - Charges (2014-19)

| Particulars                                  | 2014-15  | 2015-16      | 2016-17       | 2017-18  | 2018-19<br>(Upto<br>31.7.2018) | 2018-19<br>(from<br>1.8.2018) |
|--|----------|--------------|---------------|----------|--------------------------------|-------------------------------|
|  | 872.22   | 872.22       | 872.22        | 872.22   | 872.22                         |                               |
| Opening Gross Notional Loan                  | 872.22   | 872.22       | 872.22        | 872.22   | 872.22                         |                               |
| Opening Gross Equity                         | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Recovered Gross                              |          |              |               |          |                                |                               |
| Capital Cost (upto 31.03.2014)               | 466.35   | 544.10       | 630.82        | 727.60   | 834.28                         |                               |
| Recovered Gross<br>Notional Loan             | 466.35   | 544.10       | 630.82        | 727.60   | 834.28                         |                               |
| Recovered Gross Equity                       | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Opn.Net Capital Cost as on 01.04.2014        | 405.87   | 328.12       | 241.40        | 144.62   | 37.94                          |                               |
| Opn. Net Notional Loan                       | 405.87   | 328.12       | 241.40        | 144.62   | 37.94                          |                               |
| Opn. Net Equity                              | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Recovered Capital Cost (During the Year)     | 77.75    | 86.72        | 96.77         | 106.69   | 37.94                          |                               |
| Recovered Notional Loan                      | 77.75    | 86.72        | 96.77         | 106.69   | 37.94                          |                               |
| Recovered Equity                             | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Closing Net Capital Cost                     | 328.12   | 241.40       | 144.62        | 37.94    | 0.00                           |                               |
| Closing Net Notional<br>Loan                 | 328.12   | 241.40       | 144.62        | 37.94    | 0.00                           |                               |
| Closing Net Equity                           | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Additional Capital Cost                      | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Additional Notional Loan                     | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Additional Equity                            | 0.00     | 0.00         | 0.00          | 0.00     | 0.00                           |                               |
| Years Remaining                              | 4.33     | 3.33         | 2.33          | 1.33     | 0.33                           |                               |
| Months                                       | 52.00    | 40.00        | 28.00         | 16.00    | 4.00                           |                               |
| Weighted Average Rare of Interest p.a.       | 10.7152% | 10.5087%     | 9.7936%       | 9.7936%  | 9.7936%                        |                               |
| Weighted Average Rare of Interest p.m.       | 0.8929%  | 0.8757%      | 0.8161%       | 0.8161%  | 0.8161%                        |                               |
| Monthly Recovery Factors -Loan               | 0.024124 | 0.029742     | 0.040095      | 0.066924 | 0.255122                       |                               |
| Monthly Capital<br>Recovery Charge - Loan    | 9.79     | 9.76         | 9.68          | 9.68     | 9.68                           |                               |
| Annual Capital<br>Recovery Charge -<br>Loan  | 117.49   | 117.11       | 116.15        | 116.15   | 116.15                         |                               |
| Monthly Capital<br>Recovery Charge - Total   | 9.79     | 9.76         | 9.68          | 9.68     | 9.68                           |                               |
| Annual Capital<br>Recovery Charge -<br>Total | 117.49   | 117.11       | 116.15        | 116.15   | 116.15                         |                               |
|  |          | nterest on W | Vorking Capit | al       |                                |                               |
| Maintenance Spares (15% of O&M)              | 45.34    | 39.76        | 41.62         | 37.16    | 57.40                          | 57.40                         |
| O&M Expenses (1                              | 25.19    | 22.09        | 23.12         | 20.64    | 31.89                          | 31.89                         |



| Particulars  | 2014-15     | 2015-16     | 2016-17        | 2017-18         | 2018-19<br>(Upto<br>31.7.2018) | 2018-19<br>(from<br>1.8.2018) |
|--|-------------|-------------|----------------|-----------------|--------------------------------|-------------------------------|
| Month)   |             |             |                |                 |                                |                               |
| Receivables (2 months)                               | 73.19       | 66.58       | 68.60          | 63.37           | 87.10                          | 67.30                         |
| Total  | 143.72      | 128.43      | 133.35         | 121.16          | 176.39                         | 156.59                        |
| Rate of Interest on<br>Working Capital               | 13.50%      | 13.50%      | 13.50%         | 13.50%          | 13.50%                         | 13.50%                        |
| Total Interest on<br>Working Capital<br>(Annualized) | 19.40       | 17.34       | 18.00          | 16.36           | 7.94                           | 14.09                         |
| ,  | ees & Charg | ges allowed | for the 2014-1 | 19 tariff perio | d                              |                               |
| Annual Capital Recovery<br>Charge - Loan             | 117.49      | 117.11      | 116.15         | 116.15          | 38.72                          | 0.00                          |
| Annual Capital Recovery<br>Charge - Equity           | 0.00        | 0.00        | 0.00           | 0.00            | 0.00                           | 0.00                          |
| Annual Capital<br>Recovery Charge                    | 117.49      | 117.11      | 116.15         | 116.15          | 38.72                          | 0.00                          |
| O&M Expenses   | 302.25      | 265.05      | 277.47         | 247.70          | 127.55                         | 255.11                        |
| Interest on Working<br>Capital                       | 19.40       | 17.34       | 18.00          | 16.36           | 7.94                           | 14.09                         |
| Total Fee & Charges (Annualized)                     | 439.15      | 399.50      | 411.62         | 380.20          | 174.21                         | 269.20                        |

# Non-Microwave: State SCADA Portion – Charges (2014-19)

(₹ in lakh)

|  |                    |                 | (₹ in lakh)                 |
|--|--------------------|-----------------|-----------------------------|
| Particulars                                    | 2014-15            | 2015-16         | 2016-17<br>(Upto 31.5.2016) |
| Opening Gross Capital Cost                     | 39.99              | 39.99           | 39.99                       |
| Opening Gross Notional Loan                    | 39.99              | 39.99           | 39.99                       |
| Opening Gross Equity                           | 0.00               | 0.00            | 0.00                        |
| Recovered Gross Capital Cost (upto 31.03.2014) | 22.61              | 30.13           | 38.50                       |
| Recovered Gross Notional Loan                  | 22.61              | 30.13           | 38.50                       |
| Recovered Gross Equity                         | 0.00               | 0.00            | 0.00                        |
| Opn.Net Capital Cost as on 01.04.2014          | 17.38              | 9.85            | 1.48                        |
| Opn. Net Notional Loan                         | 17.38              | 9.85            | 1.48                        |
| Opn. Net Equity                                | 0.00               | 0.00            | 0.00                        |
| Recovered Capital Cost (During the Year)       | 7.52               | 8.37            | 1.48                        |
| Recovered Notional Loan                        | 7.52               | 8.37            | 1.48                        |
| Recovered Equity                               | 0.00               | 0.00            | 0.00                        |
| Closing Net Capital Cost                       | 9.85               | 1.48            | 0.00                        |
| Closing Net Notional Loan                      | 9.85               | 1.48            | 0.00                        |
| Closing Net Equity                             | 0.00               | 0.00            | 0.00                        |
| Additional Capital Cost                        | 0.00               | 0.00            | 0.00                        |
| Additional Notional Loan                       | 0.00               | 0.00            | 0.00                        |
| Additional Equity                              | 0.00               | 0.00            | 0.00                        |
| Years Remaining                                | 2.17               | 1.17            | 0.17                        |
| Months   | 26.00              | 14.00           | 2.00                        |
| Weighted Average Rare of Interest p.a.         | 10.7152%           | 10.5087%        | 9.7936%                     |
| Weighted Average Rare of Interest p.m.         | 0.8929%            | 0.8757%         | 0.8161%                     |
| Monthly Recovery Factors -Loan                 | 0.043269           | 0.076209        | 0.506129                    |
| Monthly Capital Recovery Charge - Loan         | 0.75               | 0.75            | 0.75                        |
| Annual Capital Recovery Charge - Loan          | 9.02               | 9.01            | 9.00                        |
| Monthly Capital Recovery Charge - Total        | 0.75               | 0.75            | 0.75                        |
| Annual Capital Recovery Charge - Total         | 9.02               | 9.01            | 9.00                        |
| Interest                                       | on Working Capita  | al              |                             |
| Maintenance Spares (15% of O&M)                | 0.00               | 0.00            | 0.00                        |
| O&M Expenses (1 Month)                         | 0.00               | 0.00            | 0.00                        |
| Receivables (2 months)                         | 1.54               | 1.54            | 1.53                        |
| Total  | 1.54               | 1.54            | 1.53                        |
| Rate of Interest on Working Capital            | 13.50%             | 13.50%          | 13.50%                      |
| Total Interest on Working Capital (Annualized) | 0.21               | 0.21            | 0.21                        |
| Fees & Charges allo                            | wed for the 2014-1 | 9 tariff period |                             |
| Annual Capital Recovery Charge - Loan          | 9.02               | 9.01            | 1.50                        |
| Annual Capital Recovery Charge - Equity        | 0.00               | 0.00            | 0.00                        |
| Annual Capital Recovery Charge                 | 9.02               | 9.01            | 1.50                        |
| O&M Expenses                                   | 0.00               | 0.00            | 0.00                        |
| Interest on Working Capital                    | 0.21               | 0.21            | 0.03                        |
| Total Fee & Charges (Annualized)               | 9.23               | 9.22            | 1.53                        |

Non-Microwave: State Portion - Charges (2014-19)



| 2014-15      | 2015-16  | 2016-17  | 2017-18   | 2018-19   |
|--------------|--|--|---|---|
|              |  | 2010-17  | 2017-10   | (Upto 31.7.2018)  |
| 578.04       | 578.04   | 578.04   | 578.04  | 578.04  |
| 578.04       | 578.04   | 578.04   | 578.04  | 578.04  |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
| 240.47       | 264.72   | 449.00   | 492.70  | EE2 04  |
| 310.47       | 301.73   | 416.90   | 462.70  | 553.04  |
| 310 47       | 361 73   | 418 90   | 482 70  | 553.04  |
|              |  |  |   |   |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
| 267.58       | 216.32   | 159.15   | 95.35   | 25.01   |
|              |  |  |   | 25.01   |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
| 51.26        | 57.18  | 63.80  | 70.34   | 25.01   |
| 51.26        | 57.18  | 63.80  | 70.34   | 25.01   |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.00  |
|              |  |  |   | 0.33  |
|              |  |  |   | 4.00  |
| 10.7152%     | 10.5087%   | 9.7936%  | 9.7936%   | 9.7936%   |
| 0.8929%      | 0.8757%  | 0.8161%  | 0.8161%   | 0.8161%   |
| 0.024124     | 0.029742   | 0.040095   | 0.066924  | 0.255122  |
| 6.46         | 6.43   | 6.38   | 6.38  | 6.38  |
| 77.46        | 77.21  | 76.57  | 76.57   | 76.57   |
| 6.46         | 6.43   | 6.38   | 6.38  | 6.38  |
| 77.46        | 77.21  | 76.57  | 76.57   | 76.57   |
| Interes      | st on Working  | Capital  |   |   |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
| 13.21        | 13.16  | 13.06  | 13.06   | 13.06   |
| 13.21        | 13.16  | 13.06  | 13.06   | 13.06   |
| 13.50%       | 13.50%   | 13.50%   | 13.50%  | 13.50%  |
| 1.78         | 1.78   | 1.76   | 1.76  | 1.76  |
| & Charges al | lowed for the  | 2014-19 tariff   | period  |   |
| 77.46        | 77.21  | 76.57  | 76.57   | 25.52   |
| 0.00         | 0.00   | 0.00   | 0.00  | 0.00  |
|              | 578.04 0.00 310.47 310.47 0.00 267.58 267.58 0.00 51.26 0.00 216.32 216.32 0.00 0.00 0.00 0.00 0.00 10.7152% 0.8929% 0.024124 6.46 77.46 6.46 77.46 6.46 77.46 Interes 0.00 0.00 13.21 13.21 13.50% 1.78 & Charges all 77.46 | 578.04       578.04         0.00       0.00         310.47       361.73         30.00       0.00         267.58       216.32         267.58       216.32         0.00       0.00         51.26       57.18         0.00       0.00         216.32       159.15         216.32       159.15         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         0.00       0.00         10.7152%       10.5087%         0.8929%       0.8757%         0.024124       0.029742         6.46       6.43         77.46       77.21         6.46       6.43         77.46       77.21         1.321       13.16         13.21       13.16         13.50%       13.50%         1.78       1.78         & Charges allowed for the         77.46       77.21 | 578.04         578.04         578.04           0.00         0.00         0.00           310.47         361.73         418.90           0.00         0.00         0.00           267.58         216.32         159.15           0.00         0.00         0.00           51.26         57.18         63.80           51.26         57.18         63.80           0.00         0.00         0.00           216.32         159.15         95.35           216.32         159.15         95.35           216.32         159.15         95.35           0.00         0.00         0.00           0.00         0.00         0.00           0.00         0.00         0.00           0.00         0.00         0.00           0.00         0.00         0.00           10.7152%         10.5087%         9.7936%           0.8929%         0.8757%         0.8161%           0.024124         0.029742         0.040095           6.46         6.43         6.38           77.46         77.21         76.57           Interest on Working Capital           0.0 | 578.04         578.04         578.04         578.04         0.00 |

| Particulars                      | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19<br>(Upto 31.7.2018) |
|----------------------------------|---------|---------|---------|---------|-----------------------------|
| Annual Capital Recovery Charge   | 77.46   | 77.21   | 76.57   | 76.57   | 25.52                       |
| O&M Expenses                     | 0.00    | 0.00    | 0.00    | 0.00    | 0.00                        |
| Interest on Working Capital      | 1.78    | 1.78    | 1.76    | 1.76    | 0.59                        |
| Total Fee & Charges (Annualized) | 79.24   | 78.98   | 78.33   | 78.33   | 26.11                       |