

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 272/TT/2020

Coram:

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

Date of order: 26.04.2022

In the matter of:

Approval under Regulation 86 of 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 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of fees and charges of 2019-24 tariff period under 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 Northern Region.

And in the matter of:

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

.....Petitioner

Versus

1. NTPC Limited,
NTPC Bhawan, Core-7, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003.
2. National Hydro Power Corporation Limited,
NHPC Office Complex, Lodhi Road,
New Delhi.
3. Satluj Jal Vidyut Nigam Limited,
Power Project, Jhakri, Rampur, Distt. Shimla,
Himachal Pradesh-172201.
4. THDC India Limited,
Bhagirath Puram, Tehri,



Uttarakhand-249001.

5. Nuclear Power Corporation of India Limited,
Nabhkiya Bhawan, Anu-Shakti Nagar,
Mumbai-400094.
6. ADHPL,
Bhilwara Towers, A-12, Sector-1
Noida-201301.
7. Aravali Power Company Private Limited,
Indira Gandhi Super Thermal Power Project,
PO: Jharli, Distt. Jhajjar, Haryana.
8. Jaypee Karchan Hydro Corporation Limited,
Sector-128, Noida-201304.
9. Everest Power Private Limited,
1st Floor, Hall-1, NBCC Tower,
Bhikaji Cama Place, New Delhi-110066.
10. Shree Cement Limited,
PO Box No. 33, Bangur Nagar,
Beawar-305901, District: Ajmer (Rajasthan).
11. Chandigarh (Electricity Department),
UT Chandigarh, Sector-9D,
Chandigarh-160019.
12. Delhi Transco Limited,
SLDC Building (Behind Jakir Husain College),
Tagore Hostel Lane, Minto Road,
New Delhi-110002.
13. Haryana Vidyut Prasaran Nigam Limited,
Room No-213, Shakti Bhawan, Sector-6,
Panchkula-134109, Haryana.
14. Himachal Pradesh State Electricity Board,
Totu, Shimla-171011, Himachal Pradesh.
15. Power Development Department,
Narwal Bala,
Gladni-180004, Jammu.
16. PSTCL,
SLDC Building, 220 kV Sub-station Ablowal,
Patiala-147001, Punjab.



17. RVPN,
Vidyut Bhawan, Jyoti Nagar,
Vidyut Marg, Jaipur-302015, Rajasthan.
18. U.P. Power Corporation Limited,
Electricity Import-Export & Payment Circle,
11th Floor, Shakti Bhawan Extension,
14-Ashok Marg, Lucknow-226001, U.P.
19. Northern Central Railway,
Nawabyusuf Road, Allahabad.
20. Uttranchal Power Corporation Limited,
Kanwali Road, Urja Bhawan,
Dehradun-248001, Uttrakhand.
21. Powerlinks Transmission Limited,
10th Floor, DLF Tower-A,
District Centre, Jasola,
New Delhi-110044.

...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 for truing of fees and charges for the period from 1.4.2014 to 31.3.2019 under 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 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 Northern Region.

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

“1) Approve the trued up fees & charges for 2014-19 block and fees & charges for 2019-24 block for the assets covered under this petition, as per para 6 and 7 above.

2) Allow the petitioner to recover the tax from the beneficiaries separately.

3) 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.

4) 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.

5) Allow the Petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.

6) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time 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.

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. Central Electricity Authority had accorded techno-economic clearance for the Scheme in Northern Region *vide* its letter dated 12.1.1994 at an estimated cost of ₹43660.00 lakh, including IDC of ₹12837.00 lakh. The Investment Approval (IA) was subsequently accorded by the Central Government in Ministry of Power by its letter dated March 1995 at an estimated cost of ₹47951.00 lakh, including IDC of ₹9383.00 lakh. The approved estimated cost included an amount of ₹4601.00 lakh for the investments to be made by the beneficiary constituent States. Subsequently, the Central Government *vide* its letter dated 25.2.2002, accorded its fresh approval to the Revised Cost Estimate (RCE) of ₹65892.00 lakh, including IDC of ₹11426.00 lakh, consisting of (i) the Petitioner's portion of ₹59458.00 lakh, including IDC of



₹9989.00 lakh and (ii) SEB's portion of ₹6434.00 lakh, including IDC of ₹1437.00 lakh based on 2nd quarter 2001 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 1.8.2002.
- d. The Petitioner while claiming the fees and charges 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 the 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 Ministry of Power dated 4.7.2008, Power System Operation Corporation Ltd (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 engaged in system operation. The Task Force made certain recommendations with regard to the ownership of the assets. Subsequent to the Task Force's report, the Petitioner 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 relating to discharge of load despatch functions raised by the Petitioner under the Scheme were 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 remained 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
- (vi) Auxillary power supply system (part)

- f. The Commission had approved the charges for the period 2001-04 *vide* order dated 2.9.2005 in Petition No. 82/2002 for the expenditure incurred from COD to 31.3.2004. The charges for the period 1.4.2004 to 31.3.2009 were initially approved by the Commission *vide* its order dated 9.5.2006 in Petition No. 139/2005. The same were revised *vide* Commission's order dated 11.4.2008



in review Petition No. 133/2006. The charges were further revised *vide* order dated 29.1.2009 in IA 11/2008 in Petition No. 139/2005 taking into account the Additional Capital Expenditure (ACE) incurred by the Petitioner in 2004-05. Later, the Commission, *vide* order dated 18.3.2011 in Petition No 28/2010, revised the charges for the period 2004-09.

- g. The Commission, *vide* order dated 17.12.2013 in Petition No. 59/TT/2012 and corrigendum dated 24.12.2013 had approved the fee and charges for the period 2009-14 for the assets retained by the Petitioner after formation of POSOCO in Northern Region, as per the principles approved by the Commission *vide* order dated 8.12.2011 in Petition No 68/2010. Subsequently, the Commission, *vide* order dated 15.7.2016 in Petition No. 19/TT/2015, had tried-up the fee and charges for the period 2009-14 and approved the fee and charges for the 2014-19 tariff period, which was further revised *vide* order dated 20.7.2018 in Petition No. 218/TT/2017.
- h. Further, the Commission *vide* its aforementioned 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 for 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."

- i. 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 SLDCs further observed in its 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.

4. The Respondents are distribution licensees and power departments, which are procuring transmission service from the Petitioner, mainly beneficiaries of the Northern 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 2.1.2020, 20.9.2021 and 15.11.2021.

7. The hearing in this matter was held on 26.10.2021 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 the 2009-14 tariff period. Accordingly, we continue to allow levelised tariff for the Non-Microwave system as per the principles approved by the Commission in 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 the 2014-19 period is considered 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:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18		2018-19
				(Upto 31.7.2017)	(From 1.8.2017 to 31.3.2018)	
Non-Microwave Central Portion						
Annual Capital Recovery Charges	936.02	935.51	927.13	309.30	0.00	0.00
O&M Expenses	355.55	286.00	314.51	107.61	215.23	274.20
Interest on Working Capital	41.19	37.33	38.71	13.06	11.89	15.15
Total	1332.76	1258.84	1280.35	429.98	227.12	289.35



(₹ in lakh)

Particulars	2014-15	2015-16 (Upto 31.12.2015)
Non-Microwave State SCADA Portion		
Annual Capital Recovery Charges	1884.69	1413.27
O&M Expenses	0.00	0.00
Interest on Working Capital	43.38	32.53
Total	1928.07	1445.80

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)
Non-Microwave State portion (Balance portion after replacing SCADA/EMS)				
Annual Capital Recovery Charges	1230.09	1229.46	1219.16	406.70
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	28.31	28.30	28.06	9.36
Total	1258.41	1257.76	1247.23	416.06

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18		2018-19
				(Upto 31.7.2017)	(From 1.8.2017 to 31.3.2018)	
Non-Microwave Central Portion						
WC for O&M Expenses	29.63	23.83	26.21	26.90	26.90	22.85
WC for Maintenance Spares	53.33	42.90	47.18	48.43	48.43	41.13
WC for Receivables	222.13	209.81	213.39	214.99	56.78	48.22
Total Working Capital	305.09	276.54	286.78	290.32	132.11	112.20
Rate of Interest on working capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Total	41.19	37.33	38.71	13.06	11.89	15.15

(₹ in lakh)

Particulars	2014-15	2015-16 (Upto 31.12.2015)
Non-Microwave State SCADA Portion		
WC for O&M Expenses	0.00	0.00
WC for Maintenance Spares	0.00	0.00
WC for Receivables	321.35	321.29
Total Working Capital	321.35	321.29
Rate of Interest on working capital (%)	13.50%	13.50%
Interest on Working Capital	43.38	32.53



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (Up to 31.7.2017)
Non-Microwave State portion (Balance portion after replacing SCADA/EMS)				
WC for O&M Expenses	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00
WC for Receivables	209.74	209.63	207.87	208.03
Total Working Capital	209.74	209.63	207.87	208.03
Rate of Interest on working capital (%)	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	28.31	28.30	28.06	9.36

Capital Cost

13. The details of capital cost approved *vide* order dated 20.7.2018 in Petition No. 218/TT/2017 as on 1.4.2014 are as follows:

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion	
			Replaced SCADA/ EMS	Remaining Existing assets
Gross Capital Cost as on 1.4.2014 – Non Microwave	Loan	7328.04	9016.10	9004.55
	Equity	1240.26	1983.11	1980.57
	Total	8568.30	10999.21	10985.12
Salvage value for state portion only (5% of Gross Capital Cost)	Loan	0.00	450.81	0.00
	Equity	0.00	99.15	0.00
	Total	0.00	549.96	0.00
Recoverable capital cost for state portion only (95% of Gross Capital Cost) as on 1.4.2014	Loan	7328.04	8565.29	9004.55
	Equity	1240.26	1883.96	1980.57
	Total	8568.30	10449.25	10985.12
Capital cost recovered upto 31.3.2014	Loan	5088.33	6259.69	6251.67
	Equity	693.13	1103.27	1101.86
	Total	5781.47	7362.97	7353.53
Net Capital Cost as on 1.4.2014	Loan	2239.71	2305.60	2752.87
	Equity	547.13	780.68	878.71
	Total	2786.83	3086.28	3631.58

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



(₹ in lakh)

Particulars	Capital	Central Portion	State Portion	
			Replaced SCADA/ EMS	Remaining Existing assets
Retained Gross Capital Cost as on 1.4.2014	Loan	7328.04	9016.10	9004.55
	Equity	1240.26	1983.11	1980.57
	Total	8568.30	10999.21	10985.12
Salvage value for state portion only (5% of Gross Capital Cost)	Loan	0.00	450.81	0.00
	Equity	0.00	99.15	0.00
	Total	0.00	549.96	0.00
Recoverable capital cost for state portion only (95% of Gross Capital Cost) as on 1.4.2014	Loan	7328.04	8565.29	9004.55
	Equity	1240.26	1883.96	1980.57
	Total	8568.30	10449.25	10985.12
Capital cost recovered upto 31.3.2014	Loan	5088.33	6259.69	6251.67
	Equity	693.13	1103.27	1101.86
	Total	5781.47	7362.97	7353.53
Net Capital Cost as on 1.4.2014	Loan	2239.71	2305.60	2752.87
	Equity	547.13	780.68	878.71
	Total	2786.83	3086.28	3631.58

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 have 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”:

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion	
			Replaced SCADA/ EMS	Remaining Existing assets
Retained Gross Capital Cost as on 1.4.2014	Loan	7328.04	9016.10	9004.55
	Equity	1240.26	1983.11	1980.57
	Total	8568.30	10999.21	10985.12
Salvage value for state portion only (5% of Gross Capital Cost)	Loan	0.00	450.81	0.00
	Equity	0.00	99.15	0.00
	Total	0.00	549.96	0.00
Recoverable capital cost	Loan	7328.04	8565.29	9004.55



for state portion only (95% of Gross Capital Cost) as on 1.4.2014	Equity	1240.26	1883.96	1980.57
	Total	8568.30	10449.25	10985.12
Capital cost recovered upto 31.3.2014	Loan	5088.33	6259.69	6251.67
	Equity	693.13	1103.27	1101.86
	Total	5781.47	7362.97	7353.53
Net Capital Cost as on 1.4.2014	Loan	2239.71	2305.60	2752.87
	Equity	547.13	780.68	878.71
	Total	2786.83	3086.28	3631.58

Additional Capital Expenditure (ACE)

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

Debt-Equity Ratio

17. The debt-equity ratio for the period ending on 31.3.2014, considered for the purpose of determination of tariff of the 2014-19 tariff period, has been considered for the purpose of truing up of the tariff of the transmission asset for the 2014-19 tariff period. The following debt-equity ratio has been considered as on 1.4.2014 for the Central as well as “Replaced SCADA / EMS – State Portion” and the remaining “Existing Assets – State Portion” for “Non-Microwave System”:

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion	
			Replaced SCADA/ EMS	Remaining Existing assets
Net Capital Cost as on 1.4.2014	Loan	2239.71	2305.60	2752.87
	Equity	547.13	780.68	878.71
	Total	2786.83	3086.28	3631.58
Debt-Equity Ratio	Loan	80.37%	74.70%	75.80%
	Equity	19.63%	25.30%	24.20%
	Total	100.00%	100.00%	100.00%

Rates for recovery of capital



Capital recovery for loan

18. The year wise weighted average rate of interest has been calculated which has been applied for calculating the capital recovery factor for loan. The details of the weighted average rate of interest are placed in Annexure-I.

Capital recovery for Equity

19. The methodology as used for true-up calculation for the period 2009-14, approved *vide* order dated 15.7.2016 in Petition No. 19/TT/2015, has been considered for Capital Recovery of Equity. Hence, post-tax RoE of 15.50%, without grossing has been applied for calculating the capital recovery factor for equity.

Monthly Capital Recovery Charges

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

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

21. The COD of the instant ULDC scheme was 1.8.2002. The Commission had approved the recovery of deemed loan, corresponding to 2002-04, 2004-09 and 2009-14 tariff periods and subsequent ACE 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 31.7.2017. Further, the Commission *vide* order dated 20.7.2018 in Petition No. 218/TT/2017 has adopted the date of 31.12.2015 as the date for the recovery of accelerated depreciation of "Replaced SCADA/EMS-State Portion".

22. 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 given below:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18
Non-Microwave - Central Portion	0.026969	0.037661	0.063738	0.251716
Non-Microwave – Replaced SCADA / EMS - State Portion	0.049608	0.113176		
Non-Microwave – Remaining Existing Assets - State Portion	0.026969	0.037661	0.063738	0.251716

23. Similarly, the monthly recovery factors for Equity 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 under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18
Non-Microwave - Central Portion	0.032170	0.042789	0.069582	0.258125
Non-Microwave – Replaced SCADA / EMS - State Portion	0.054674	0.118410		
Non-Microwave – Remaining Existing Assets - State Portion	0.032170	0.042789	0.069582	0.258125

24. Based on the above recovery factors, monthly capital recovery charges for loan for Central as well as State portion corresponding to “Non-Microwave System” are worked out as given below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18
Non-Microwave - Central Portion	60.40	60.36	59.66	59.72
Non-Microwave – Replaced SCADA / EMS - State Portion	114.38	114.35		
Non-Microwave – Remaining Existing Assets - State Portion	74.24	74.19	73.33	73.41

25. Similarly, monthly capital recovery charges for Equity for Central Portion as well as “Replaced SCADA / EMS – State Portion” and the remaining “Existing Assets-State Portion” for “Non-Microwave System” are worked out as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18
Non-Microwave - Central Portion	17.60	17.60	17.60	17.60
Non-Microwave – Replaced SCADA / EMS - State Portion	42.68	42.68		
Non-Microwave – Remaining Existing Assets - State Portion	28.27	28.27	28.27	28.27

26. 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:

(₹ in lakh)

Particulars	Capital	Central portion	State portion		
			Replaced SCADA/EMS	Existing Assets	Total
Capital Cost Recovered during 2014-19	Loan	2239.71	2305.60	2752.87	5058.47
	Equity	547.13	780.68	878.71	1659.39
	Total	2786.84	3086.28	3631.58	6717.86
Net Capital Cost as on 1.4.2019	Loan	0.00	0.00	0.00	0.00
	Equity	0.00	0.00	0.00	0.00
	Total	0.00	0.00	0.00	0.00

Operation & Maintenance Expenses (O&M Expenses)

27. The O&M Expenses claimed by the Petitioner for the instant assets and the O&M Expenses allowed by the Commission *vide* order dated 20.7.2018 in Petition No. 218/TT/2017 are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses allowed <i>vide</i> order dated 20.7.2018 in Petition No. 218/TT/2017	357.30	369.16	381.42	131.36	0.00
O&M Expenses claimed in instant petition as per actuals	355.55	286.00	314.51	322.84	274.20

28. The Petitioner has submitted that only O&M Expenses for the assets under the Central portion is claimed and has submitted the Auditor's Certificate in support of the same. The Petitioner further submitted that the ULDC Scheme in Northern Region was put under commercial operation on 1.8.2002 and the entire



capital cost of the scheme was recovered by 31.7.2017. Accordingly, for the remaining period in the 2014-19 tariff block, only O&M Expenses and Interest on Working Capital for the Central portion is claimed.

29. We have considered the submissions of the Petitioner. The Petitioner has submitted the Auditor certificate dated 24.10.2019 and has submitted the actual O&M Expenses wherein the Petitioner has claimed the self insurance, petition filing charges and Advertisement & Publicity charges as part of the O&M Expenses.

30. As regards self insurance, the Commission in order dated 29.7.2016 in Petition No. 275/TT/2015 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 self insurance reserved as expenses under O&M Expenses which is not allowable as expenses."

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

31. 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 is not allowable under O&M Expenses and accordingly has been disallowed.

32. The Petitioner has also claimed the Advertisement & Publicity charges as part of the O&M Expenses, which is not allowable as O&M Expenses and therefore has been disallowed.

33. Accordingly, the O&M Expenses are allowed for the 2014-19 as per the Auditor's Certificate after deducting the self insurance portion and are as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2017-18	2018-19
				(Upto 31.7.2017)	(from 1.8.2018 to 31.3.2018)	
Non-Microwave Central Portion						
O&M Expenses claimed by the Petitioner	355.55	286.00	314.51	107.61	215.23	274.20
Less: Self Insurance	6.02	7.57	9.29		11.01	8.53
Less: CERC Petition filing Charges	3.23	0.68	0.01		1.53	2.56
Less: Advertisement & Publicity	1.21	0.72	0.57		4.01	1.05
O&M Expenses allowed for the Central Portion	345.09	277.03	304.64		306.29	262.06

Interest on Working Capital (IWC)

34. The following trued-up IWC has been allowed for the transmission asset:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18		2018-19
				(Upto 31.7.2017)	(From 1.8.2017 to 31.3.2018)	
Non-Microwave Central Portion						
WC for O&M Expenses	28.76	23.09	25.39	25.52	25.52	21.84
WC for Maintenance Spares	51.76	41.55	45.70	45.94	45.94	39.31
WC for Receivables	220.29	208.23	211.66	212.08	53.87	46.09
Total Working Capital	300.81	272.87	282.74	283.55	125.34	107.24
Rate of Interest on Working Capital (%)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Total	40.61	36.84	38.17	12.76	11.28	14.48

(₹ in lakh)

Particulars	2014-15	2015-16
		(Upto 31.12.2015)
Non-Microwave State SCADA Portion		
WC for O&M Expenses	0.00	0.00
WC for Maintenance Spares	0.00	0.00
WC for Receivables	321.35	321.29
Total Working Capital	321.35	321.29
Rate of Interest on Working Capital (%)	13.50%	13.50%
Interest on Working Capital	43.38	32.53



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)
Non-Microwave State portion (Balance portion after replacing SCADA/EMS)				
WC for O&M Expenses	0.00	0.00	0.00	0.00
WC for Maintenance Spares	0.00	0.00	0.00	0.00
WC for Receivables	209.74	209.62	207.87	208.03
Total Working Capital	209.74	209.62	207.87	208.03
Rate of Interest on Working Capital (%)	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	28.31	28.30	28.06	9.36

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

35. The annual fees and charges allowed during the true-up of the 2014-19 tariff period for the instant assets are provided in Annexure II and are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18		2018-19
				(Upto 31.7.2017)	(From 1.8.2017 to 31.3.2018)	
Non-Microwave Central Portion						
Annual Capital Recovery Charges	936.03	935.50	927.14	309.30	0.00	0.00
O&M Expenses	345.09	277.03	304.64	102.10	204.20	262.06
Interest on Working Capital	40.61	36.84	38.17	12.76	11.28	14.48
Total	1321.74	1249.37	1269.95	424.16	215.48	276.53

(₹ in lakh)

Particulars	2014-15	2015-16 (Upto 31.12.2015)
Non-Microwave State SCADA Portion		
Annual Capital Recovery Charges	1884.70	1413.26
O&M Expenses	0.00	0.00
Interest on Working Capital	43.38	32.53
Total	1928.09	1445.79



Particulars	(₹ in lakh)			
	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)
Non-Microwave State portion (Balance portion after replacing SCADA/EMS)				
Annual Capital Recovery Charges	1230.11	1229.45	1219.17	406.70
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	28.31	28.30	28.06	9.36
Total	1258.42	1257.74	1247.23	416.06

Determination of Annual Fees and Charges for the 2019-24 Tariff Period

36. 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.

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

Particulars	(₹ in lakh)				
	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	171.37	171.37	171.37	171.37	171.37
Interest on Working Capital	7.47	7.48	7.48	7.48	7.47
Total	178.83	178.84	178.84	178.84	178.83

38. The details of the IWC claimed by the Petitioner for the 2019-24 period for the instant assets are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses	14.28	14.28	14.28	14.28	14.28
WC for Maintenance Spares	25.70	25.70	25.70	25.70	25.70
WC for Receivables	21.99	22.05	22.05	22.05	21.99
Total Working Capital	61.97	62.03	62.03	62.03	61.97
Rate of Interest on working capital (%)	12.05%	12.05%	12.05%	12.05%	12.05%
Interest on Working Capital	7.47	7.48	7.48	7.48	7.47

39. We have considered the submissions made by the Commission. The COD of the instant ULDC scheme was 1.8.2002. The Commission had approved the recovery



of deemed loan, corresponding to 2002-04, 2004-09 and 2009-14 tariff periods and subsequent ACE 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 31.7.2017. Further, the accelerated depreciation of “Replaced SCADA/EMS-State Portion” has been recovered up to 31.12.2015.

40. 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)

41. 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 (2% of ₹8568.30 lakh)	171.37	171.37	171.37	171.37	171.37
Total O&M Expenses (₹ in lakh)	171.37	171.37	171.37	171.37	171.37

42. 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 Allowed	171.37	171.37	171.37	171.37	171.37



Interest on Working Capital (IWC)

43. 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%.

44. The IWC is worked out considering the Rate of Interest (ROI) as 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). The components of the working capital and interest thereon allowed are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for one month)	14.28	14.28	14.28	14.28	14.28
WC for Maintenance Spares (15% of O&M Expenses)	25.70	25.70	25.70	25.70	25.70
WC for Receivables (Equivalent to 45 days of annual transmission cost)	21.99	21.99	21.93	21.93	21.87
Total Working Capital	61.97	61.97	61.91	61.91	61.85
Rate of Interest on working capital (%)	12.05%	11.25%	10.50%	10.50%	10.50%
Interest on Working Capital	7.47	6.97	6.50	6.50	6.49

Annual Fees and Charges for the 2019-24 Tariff Period

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

Particulars	(₹ in lakh)				
	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	171.37	171.37	171.37	171.37	171.37
Interest on Working Capital	7.47	6.97	6.50	6.50	6.49
Total	178.83	178.34	177.87	177.87	177.86



Filing Fee and the Publication Expenses

46. 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

47. 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

48. 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.

49. 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 annual fees and charges

50. As regards sharing of annual fees and charges of ULDC Scheme, the Commission vide order dated 15.7.2016 in Petition No 19/TT/2015 held as follows:



“51. The fees and charges for Non-microwave system shall be shared on similar lines as system operation charges by the users in the ratio of 45:45:10 as per Regulation 22 (1) of Fees and charges of Regional Load Despatch Centre and other related matters Regulations, 2009 as under:-

*Distribution licensees and buyers : 45% of system operation charges;
Generating stations and sellers : 45% of system operation charges;
Inter-state Transmission licensees: 10% of system operation charges*

52. The fee & charges for State Sector shall be recovered from respective States. Further, as specified under Regulation 5 of Central Electricity Regulatory Commission (sharing of revenue derived from utilization of transmission assets for other business) Regulations, 2007, the revenue earned by the petitioner from utilisation of these assets for other business shall be adjusted on monthly basis in the bills of the respective month in the proportion given in para 51 above.”

51. Accordginly, the fees and charges for 2014-19 and 2019-24 tariff periods shall be shared interms of order dated 15.7.2016 in Petition No 19/TT/2015.

52. 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.

53. To summarise:

(a) The trued-up Annual Fees and Charges allowed for the instant assets for the 2014-19 tariff period are:

Particulars	2014-15	2015-16	2016-17	2017-18		2018-19
				(Upto 31.7.2017)	(From 1.8.2017 to 31.3.2018)	
Non-Microwave Central Portion						
Annual Fees & Charges	1321.74	1249.37	1269.95	424.16	215.48	276.53

Particulars	2014-15	2015-16
		(Upto 31.12.2015)
Non-Microwave State SCADA Portion		
Annual Fees & Charges	1928.09	1445.79



Particulars	2014-15	2015-16	2016-17	(₹ in lakh)
				2017-18 (Upto 31.7.2017)
Non-Microwave State portion (Balance portion after replacing SCADA/EMS)				
Annual Fees & Charges	1258.42	1257.74	1247.23	416.06

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fees & Charges	178.83	178.34	177.87	177.87	177.86

54. Annexure-I and Annexure-II to this order form part of this order.

55. This order disposes of Petition No. 272/TT/2020 in terms of the above discussion and findings.

sd/-
(P.K. Singh)
Member

sd/-
(I.S. Jha)
Member

sd/-
(Arun Goyal)
Member

sd/-
(P.K. Pujari)
Chairperson



Annexure-I

Weighted Average Rate of Interest (for 2014-19) as submitted by the Petitioner						
(₹ in lakh)						
2014-15						
Loan	Opening (Net O/S as on 1.4.2014)	Repayment	Closing (Net O/S as on 1.4.2015)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2	2793.53	1396.77	1396.76	6.30%	131.99	
Bond X	583.34	291.67	291.67	10.90%	47.69	
Bond XII	47.25	15.75	31.50	9.70%	3.82	
OBC	207.50	103.75	103.75	12.35%	19.22	
PNB II	248.34	124.17	124.16	11.60%	21.61	
IBRD II	3582.33	386.37	3195.95	1.75%	59.31	
Total Loan	7462.29	2318.48	5143.79		283.64	4.5000%
2015-16						
Loan	Opening (Net O/S as on 1.4.2015)	Repayment	Closing (Net O/S as on 1.4.2016)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2	1396.76	1396.77	0.00	12.25%	85.55	
Bond X	291.67	291.67	0.00	10.90%	15.90	
Bond XII	31.50	15.75	15.75	9.70%	2.29	
OBC	103.75	103.75	0.00	12.35%	6.41	
PNB II	124.16	124.17	0.00	11.60%	7.20	
IBRD II	3195.95	411.22	2784.73	1.97%	58.91	
Total Loan	5143.79	2343.33	2800.48		176.26	4.4373%
2016-17						
Loan	Opening (Net O/S as on 1.4.2016)	Repayment	Closing (Net O/S as on 1.4.2017)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2	0.00	0.00	0.00	12.25%	0.00	
Bond X	0.00	0.00	0.00	10.90%	0.00	
Bond XII	15.75	15.75	0.00	9.70%	0.76	
OBC	0.00	0.00	0.00	12.35%	0.00	
PNB II	0.00	0.00	0.00	11.60%	0.00	
IBRD II	2784.73	437.82	2346.91	2.76%	70.82	
Total Loan	2800.48	453.57	2346.91		71.58	2.7812%
2017-18						
Loan	Opening (Net O/S as on 1.4.2017)	Repayment	Closing (Net O/S as on 1.4.2018)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2	0.00	0.00	0.00	12.25%	0.00	
Bond X	0.00	0.00	0.00	10.90%	0.00	
Bond XII	0.00	0.00	0.00	9.70%	0.00	
OBC	0.00	0.00	0.00	12.35%	0.00	
PNB II	0.00	0.00	0.00	11.60%	0.00	



IBRD II	2346.91	466.03	1880.88	3.29%	69.55	
Total Loan	2346.91	466.03	1880.88		69.55	3.2900%
`2018-19						
Loan	Opening (Net O/S as on 1.4.2018)	Repayment	Closing (Net O/S as on 1.4.2019)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2	0.00	0.00	0.00	12.25%	0.00	
Bond X	0.00	0.00	0.00	10.90%	0.00	
Bond XII	0.00	0.00	0.00	9.70%	0.00	
OBC	0.00	0.00	0.00	12.35%	0.00	
PNB II	0.00	0.00	0.00	11.60%	0.00	
IBRD II	1880.88	496.05	1384.83	4.29%	70.05	
Total Loan	1880.88	496.05	1384.83		70.05	4.2900%



Annexure-II

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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)	2018-19
Opening Gross Capital Cost	8568.30	8568.30	8568.30	8568.30	
Opening Gross Notional Loan	7328.04	7328.04	7328.04	7328.04	
Opening Gross Equity	1240.26	1240.26	1240.26	1240.26	
Recovered Gross Capital Cost upto 31.03.2014	5781.46	6554.31	7379.33	8262.85	
Recovered Gross Notional Loan	5088.33	5725.40	6392.02	7090.77	
Recovered Gross Equity	693.13	828.91	987.31	1172.07	
Opn.Net Capital Cost as on 01.04.2014	2786.84	2013.99	1188.97	305.45	
Opn. Net Notional Loan	2239.71	1602.64	936.02	237.27	
Opn. Net Equity	547.13	411.35	252.95	68.19	
Recovered Capital Cost (During the Year)	772.85	825.01	883.52	305.45	
Recovered Notional Loan	637.07	666.62	698.76	237.27	
Recovered Equity	135.78	158.39	184.76	68.19	
Closing Net Capital Cost	2013.99	1188.97	305.45	0.00	
Closing Net Notional Loan	1602.64	936.02	237.27	0.00	
Closing Net Equity	411.35	252.95	68.19	0.00	
Additional Capital Cost	0.00	0.00	0.00	0.00	
Additional Notional Loan	0.00	0.00	0.00	0.00	
Additional Equity	0.00	0.00	0.00	0.00	
Years Remaining	3.33	2.33	1.33	0.33	
Months	40.00	28.00	16.00	4.00	
Weighted Average Rare of Interest p.a.	4.5000%	4.4373%	2.7812%	3.2900%	
Weighted Average Rare of Interest p.m.	0.3750%	0.3698%	0.2318%	0.2742%	
Monthly Recovery Factors -Loan	0.026969	0.037661	0.063738	0.251716	
Monthly Capital Recovery Charge - Loan	60.40	60.36	59.66	59.72	
Annual Capital Recovery Charge – Loan	724.82	724.29	715.93	716.68	
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	
Monthly Recovery Factors -Equity	0.032170	0.042789	0.069582	0.258125	
Monthly Capital Recovery Charge – Equity	17.60	17.60	17.60	17.60	



Particulars	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)		2018-19
Annual Capital Recovery Charge - Equity	211.21	211.21	211.21	211.21		
Monthly Capital Recovery Charge - Total	78.00	77.96	77.26	77.32		
Annual Capital Recovery Charge - Total	936.03	935.50	927.14	927.89		
Interest on Working Capital						
Maintenance Spares (15% of O&M)	51.76	41.55	45.70	45.94	45.94	39.31
O&M Expenses (1 Month)	28.76	23.09	25.39	25.52	25.52	21.84
Receivables (2 months)	220.29	208.23	211.66	212.08	53.87	46.09
Total	300.81	272.87	282.74	283.55	125.34	107.24
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	40.61	36.84	38.17	12.76	11.28	14.48
Fees & Charges allowed for the 2014-19 tariff period						
Annual Capital Recovery Charge - Loan	724.82	724.29	715.93	238.89	0.00	0.00
Annual Capital Recovery Charge - Equity	211.21	211.21	211.21	70.40	0.00	0.00
Annual Capital Recovery Charge	936.03	935.50	927.14	309.30	0.00	0.00
O&M Expenses	345.09	277.03	304.64	102.10	204.20	262.06
Interest on Working Capital	40.61	36.84	38.17	12.76	11.28	14.48
Total Fee & Charges	1321.74	1249.37	1269.95	424.16	215.48	276.53



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

(₹ in lakh)

Particulars	2014-15	2015-16 (Upto 31.12.2015)
Opening Gross Capital Cost	10449.25	10449.25
Opening Gross Notional Loan	8565.30	8565.30
Opening Gross Equity	1883.95	1883.95
Recovered Gross Capital Cost (upto 31.3.2014)	7362.96	9078.43
Recovered Gross Notional Loan	6259.69	7554.94
Recovered Gross Equity	1103.27	1523.48
Opn.Net Capital Cost as on 1.4.2014	3086.28	1370.81
Opn. Net Notional Loan	2305.60	1010.34
Opn. Net Equity	780.68	360.47
Recovered Capital Cost (During the Year)	1715.47	1370.81
Recovered Notional Loan	1295.25	1010.34
Recovered Equity	420.21	360.47
Closing Net Capital Cost	1370.81	0.00
Closing Net Notional Loan	1010.34	0.00
Closing Net Equity	360.47	0.00
Additional Capital Cost	0.00	0.00
Additional Notional Loan	0.00	0.00
Additional Equity	0.00	0.00
Years Remaining	1.75	0.75
Months	21.00	9.00
Weighted Average Rate of Interest p.a.	4.5000%	4.4373%
Weighted Average Rate of Interest p.m.	0.3750%	0.3698%
Monthly Recovery Factors -Loan	0.049608	0.113176
Monthly Capital Recovery Charge - Loan	114.38	114.35
Annual Capital Recovery Charge - Loan	1372.51	1372.15
Monthly Capital Recovery Charge - Total	15.500%	15.500%
Annual Capital Recovery Charge - Total	1.292%	1.292%
Interest on Working Capital		
Maintenance Spares (15% of O&M)	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00
Receivables (2 months)	321.35	321.29
Total	321.35	321.29
Rate of Interest on Working Capital	13.50%	13.50%
Total Interest on Working Capital	43.38	32.53
Fees & Charges allowed for the 2014-19 tariff period		
Annual Capital Recovery Charge - Loan	1372.51	1029.11
Annual Capital Recovery Charge - Equity	512.20	384.15
Annual Capital Recovery Charge	1884.70	1413.26
O&M Expenses	0.00	0.00
Interest on Working Capital	43.38	32.53
Total Fee & Charges	1928.09	1445.79



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

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (Upto 31.7.2017)
Opening Gross Capital Cost	10985.12	10106.41	10106.41	10106.41
Opening Gross Notional Loan	9004.55	9004.55	9004.55	9004.55
Opening Gross Equity	1101.86	1101.86	1101.86	1101.86
Recovered Gross Capital Cost (upto 31.3.2014)	7353.53	8131.49	9205.23	10360.82
Recovered Gross Notional Loan	6251.67	7034.70	7854.06	8712.91
Recovered Gross Equity	878.71	1096.78	1351.17	1647.91
Opn.Net Capital Cost as on 1.4.2014	3631.58	2630.47	1556.73	401.14
Opn. Net Notional Loan	2752.87	1969.84	1150.48	291.63
Opn. Net Equity	878.71	660.64	406.25	109.51
Recovered Capital Cost (During the Year)	1001.11	1073.74	1155.59	401.14
Recovered Notional Loan	783.03	819.35	858.85	291.63
Recovered Equity	218.07	254.38	296.74	109.51
Closing Net Capital Cost	2630.47	1556.73	401.14	0.00
Closing Net Notional Loan	1969.84	1150.48	291.63	0.00
Closing Net Equity	660.64	406.25	109.51	0.00
Additional Capital Cost	0.00	0.00	0.00	0.00
Additional Notional Loan	0.00	0.00	0.00	0.00
Additional Equity	0.00	0.00	0.00	0.00
Years Remaining	3.33	2.33	1.33	0.33
Months	40.00	28.00	16.00	4.00
Weighted Average Rate of Interest p.a.	4.5000%	4.4373%	2.7812%	3.2900%
Weighted Average Rate of Interest p.m.	0.3750%	0.3698%	0.2318%	0.2742%
Monthly Recovery Factors -Loan	0.026969	0.037661	0.063738	0.251716
Monthly Capital Recovery Charge - Loan	74.24	74.19	73.33	73.41
Annual Capital Recovery Charge - Loan	890.89	890.23	879.96	880.89
Monthly Capital Recovery Charge - Total	15.500%	15.500%	15.500%	15.500%
Annual Capital Recovery Charge - Total	1.292%	1.292%	1.292%	1.292%
Interest on Working Capital				
Maintenance Spares (15% of O&M)	0.00	0.00	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00	0.00	0.00
Receivables (2 months)	209.74	209.62	207.87	208.03
Total	209.74	209.62	207.87	208.03
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital	28.31	28.30	28.06	9.36
Fees & Charges allowed for the 2014-19 tariff period				
Annual Capital Recovery Charge - Loan	890.89	890.23	879.96	293.63
Annual Capital Recovery Charge - Equity	339.21	339.21	339.21	113.07
Annual Capital Recovery Charge	1230.11	1229.45	1219.17	406.70
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	28.31	28.30	28.06	9.36
Total Fee & Charges	1258.42	1257.74	1247.23	416.06

