

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 218/TT/2017**

**Coram:**

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

**Date of Order : 20.07.2018**

**In the matter of:**

Petition for revision of Fees and Charges for the period 2014-19 tariff block on accelerated depreciation of SCADA/EMS systems of SLDCs for Unified Load Despatch & Communication Scheme under Section 28(4) of the Electricity Act, 2003 and Central Electricity Regulatory Commission (Terms and Conditions) of Tariff Regulations, 2014

**And**

**In the matter of:**

Power Grid Corporation of India Limited  
"Saudamini", Plot No.2,  
Sector-29, Gurgaon -122 001

**.....Petitioner**

**Vs**

1. NTPC  
NTPC Bhawan, Core 4,  
Scope Complex, Lodhi Road  
New Delhi - 110003
2. NHPC Ltd .  
NHPC Office Complex,  
Lodhi Road , New Delhi - 110003
3. SJVN Ltd.  
Shakti Sadan, Corporate Office Complex  
Shanan, Shimla 171006
4. THDC India Ltd.  
Bhagirath Puram, Tehri,  
Uttrakhand-249001



5. Nuclear Power Corporation of India Ltd.  
Nabhika Bhawan , Anu-Shakti Nagar  
Mumbai-400094
6. ADHPL  
Bhilwara Towers,  
A-12 Sector-1,  
Noida-201301
7. Aravali power Company Private Limited APCL  
Indira Gandhi Super Thermal Power Project  
Aravali power Company Private Limited,  
PO-Jharli,Dist-Jhajjar
8. Jaypee Karcham Hydro Corporation Ltd.(JKHCL),  
Karcham Whangtoo  
Sector-128 Noida-201304
9. Everest Power Pvt. Ltd  
1st Floor, Hall-1, NBCC Tower  
Bikaji Cama Place,  
New Delhi – 110 066.
10. Shree Cement Ltd.,  
PO Box No. 33, Bangur Nagar,  
Beawar. 305901.  
District: Ajmer (Rajasthan)
11. Power Department , Union Territory of Chandigarh,  
Additional Office Building, Sector 9D,  
Chandigarh
12. Delhi Transco Ltd  
SLDC Building (Behind Jakir Husain College)  
Tagore Hostel Lane, Minto Road  
New Delhi-110 002 .
13. Haryana Vidyut Prasaran Nigam Ltd.  
Room No-213,Shakti Bhawan,Sector-6  
Panchkula-134109,Haryana
14. Himachal Pradesh State Electricity Board ,Totu  
Shimla-171 011,Himachal Pradesh
15. Power Development Department (J&K),  
Government of J&K, Mini Secretariat, Jammu



16. PSTCL,  
SLDC Building  
220 kV Sub Station Ablowal  
Patiala-147 001, Punjab
17. Director (Operation)  
Vidyut Bhawan, Jyoti Nagar  
Vidyut Marg  
Jaipur-302 015, Rajasthan
18. U. P. Power Corporation Ltd.  
11th Floor Shakti Bhawan Extn.,  
14-Ashok Marg  
Lucknow-226 001, UP
19. DRM Office Northern Central railway  
Nawabyusuf Road  
Allahabad, UP.
20. Uttranchal Power Corporation Ltd.  
Kanwli Road, Urja Bhawan  
Dehradun-248001, Uttrakhand
21. Powerlinks Transmission Ltd.,  
10th Floor, DLF Tower-A,  
District Centre, Jasola,  
New Delhi-110044

... Respondents

**For petitioner :** Shri Vivek Kumar Singh, PGCIL  
Shri S. S. Raju, PGCIL  
Shri B. Dash, PGCIL  
Shri Rakesh Prasad, PGCIL

**For respondents :** None

### **ORDER**

Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”) has filed the present petition for revision of Fees and Charges for the period 2014-19 tariff block on accelerated depreciation of SCADA/EMS systems of SLDCs for Unified Load Despatch & Communication Scheme at SLDC of Western Region” (hereinafter referred to



as the project) under Section 28(4) of the Electricity Act, 2003 and in terms of the Central Electricity Regulatory Commission (Terms and Conditions) of Tariff Regulations, 2014 (hereinafter "the 2014 Tariff Regulations").

2. The petitioner has made the following prayers:

“(a) Approve the revised Fees and charges for the Central portion and State portion during 2014-19 block as claimed in the instant petition, as per Para- 12 above;

(b) Approve the reimbursement of expenditure by the beneficiaries towards any other expenditure (if any) in relation to the filing of petition and petition filing fee;

(c) 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 2009-14 period, if any, from the respondent.

(d) Allow the Petitioner to bill and recover GST/Service tax on Transmission Charges separately from the respondents, if at any time exemption from GST/service tax is withdrawn and transmission is notified as a taxable service;

(e) Allow to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 ( as amended from time to time) of the respective financial year directly from the beneficiaries;

(f) Allow the petitioner to bill and recover License fee separately from the respondents;

(g) Allow the petitioner to recover the applicable income tax from the respondents separately.

(h) Allow the petitioner to recover the deferred tax liability upto 31.03.2009 from the beneficiaries or the long term customers/DICs as and when the same gets materialized;

(i) 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 2014-19 period, if any, from the respondents.”

3. 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. Subsequently, the Commission, vide order dated 15.7.2016 in Petition No. 19/TT/2015, had approved the true-up of Fee and Charges for the period 2009-14 and final Fee and Charges for tariff period 2014-19.



4. The Commission, vide order dated 2.3.2017 in Petition No. 188/MP/2014, had held that wherever, the SCADA/EMS system of SLDC retained by PGCIL are replaced by new SCADA/EMS system, before completion of their useful life, the unrecovered charges shall be recovered as accelerated depreciation matching with the commissioning schedule of the new SCADA system and observed as under:-

“14. ....Considering the existing SCADA/EMS system for SLDC retained by Powergrid as 95% depreciable with 5% salvage value, the Commission is of the view that wherever, the SCADA/EMS system of SLDC retained by Powergrid are replaced by new SCADA/EMS system, before completion of their useful life, the unrecovered charges shall be recovered as accelerated depreciation matching with the commissioning schedule of the new SCADA system.

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16. The petitioner has filed petitions for true-up of the fees and charges for the period 2009-14 and determination of the fee and charges for the period 2014-19 for the ULDC scheme under PGCIL portions. Orders in the petitions pertaining to Southern Region, Western Region and Northern Region (545/TT/2014, 11/TT/2015 and 19/TT/2015) have been issued and orders in the petition for NER and ER (17/TT/2015 and 39/TT/2015) are in the process of being issued. The Petitioner is directed to file fresh petitions in those cases where orders have been issued and amend the petitions where order have not been issued, incorporating the input of accelerated depreciation of SCADA/EMS matching with the commissioning of the new SCADA system covered in the petitions for the respective regions. While filing the petitions/ amended petitions, the Petitioner shall segregate the existing assets where tariff was determined in terms of order in Petition No. 68/2010 and the new assets which have been considered during 2014-19 period in accordance with the 2014 Tariff Regulations.”

5. The COD of new SCADA / EMS System is 31.12.2015 which pertains to the 2014-19 tariff period. Accordingly, the revision of true-up Fee & Charges for the period 2009-14, as approved vide Commission’s order dated 15.7.2016 in Petition No. 19/TT/2015, is revised to the extent of the Fee & Charges approved for the period 2014-19.

6. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act,



2003 ("the Act"). No comments/objections have been received from the public in response to the notice in newspaper. None of the respondents have filed any reply.

7. Having heard the representatives of the parties and after perusal of the records, we proceed to dispose of the petition.

### **Capital Cost**

8. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as under:-

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

(2) The Capital Cost of a new project shall include the following:

(a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalized Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and

(h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD.

9. The Commission, vide order dated 15.7.2016 in Petition No. 19/TT/2015, had approved the following gross capital cost as on 31.3.2014, capital cost recovered during the tariff period 2009-14 and net capital cost as on 31.3.2014 for the assets retained by the



petitioner after formation of POSOCO in Northern Region:-

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion
Gross capital cost as on 31.3.2014 – Non-Microwave	Loan	7328.04	18020.65
	Equity	1240.26	3963.68
	<b>Total</b>	<b>8568.30</b>	<b>21984.33</b>
Capital cost recovered up to 31.3.2014 – Non-Microwave	Loan	5088.33	12511.37
	Equity	693.13	2205.14
	<b>Total</b>	<b>5781.47</b>	<b>14716.50</b>
Net capital cost as on 31.3.2014 – Non-Microwave	Loan	2239.71	5509.28
	Equity	547.12	1758.55
	<b>Total</b>	<b>2786.83</b>	<b>7267.83</b>

### **Additional Capital Expenditure**

10. The petitioner has not claimed any additional capital expenditure for the period 2014-19. Hence, the capital cost has been considered as on 1.4.2014 for working out the Fee & Charges for the period 2014-19 for Central as well as State Portion for 'Non-Microwave portion' only. Further, the capital cost in respect of "Microwave" portion had already been recovered during the period 2009-14 in terms of the Commission's order dated 8.12.2011 in Petition No. 68/TT/2010.

11. The petitioner has submitted that due to substantial technological obsolescence, rapid changes in information technology and rapid growth in power system has necessitated the up-gradation/expansion of existing RLDCs and SLDCs. This has resulted in a peculiar situation wherein the investments made by the petitioner for SCADA/EMS for SLDC scheme are still to be recovered fully as the schemes have not completed the useful life of fifteen years. The petitioner has further submitted that in Commission's order dated 2.3.2017 in Petition No. 188/MP/2014, had allowed recovery of accelerated depreciation matching with the COD of the new SCADA/EMS system.



12. The petitioner has submitted the details regarding SCADA / EMS are under:-

(₹ in lakh)

Name of SCADA / EMS State	Total scope of New SCADA / EMS	Commissioning SCADA / EMS System (New) under Petition No. 144/TT/2016			Corresponding replaced SCADA / EMS covered under Petition No. 19/TT/2015		
		COD	FR (Apportioned Approved Cost)	Estimated Completion cost	Original Gross Block amount	Recovered Depreciation	Unrecovered Depreciation on SCADA / EMS
Assets							
BBMB	7090.00	31.12.2015	5091.99	634.90	1533.70	9152.63	1846.58
DTL (DVB)				509.49	1493.76		
HSEB (HVPNL)				591.62	1294.52		
HPSEBL				555.07	1235.60		
J&K PDD				648.22	1078.85		
PSEB (PSTCL)				594.29	1301.38		
RSEB (RRVNL)				571.72	1360.17		
UPSEB (UPPTCL)				806.04	1701.23		
<b>TOTAL</b>				<b>4911.35</b>	<b>10999.21</b>	<b>9152.63</b>	<b>1846.58</b>

13. The petitioner has prayed to allow recovery of the accelerated depreciation of ₹1846.58 lakh on SCADA/EMS.

14. We have considered the methodology applied in order dated 12.12.2017 in Petition No. 39/TT/2015 and order dated 15.12.2017 in Petition No.17/TT/2015 for Eastern Region and North-Eastern Region respectively.

15. Accordingly, the gross capital cost as on 1.4.2014 for the State Portion for 'Non-Microwave System', as indicated above, has been segregated into "Replaced SCADA/EMS – State Portion" and the remaining as "Existing Assets – State Portion". Capital Cost recovered up to 31.3.2014 for "Replaced SCADA/EMS – State Portion" and for the "Existing Assets – State Portion" has been worked out on pro-rata basis. Hence, the following capital cost have been calculated as on 1.4.2014 for working out the Fee & 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’ only as under:-

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion		
			Replaced SCADA / EMS – State Portion	Remaining “Existing Assets – State Portion”	Total
Retained gross capital cost as on 1.4.2014	Loan	7328.04	9016.10	9004.55	18020.65
	Equity	1240.26	1983.11	1980.57	3963.68
	<b>Total</b>	<b>8568.30</b>	<b>10999.21</b>	<b>10985.12</b>	<b>21984.33</b>
Pro-rata capital cost recovered up to 31.3.2014	Loan	5088.33	6259.69	6251.67	12511.37
	Equity	693.13	1103.27	1101.86	2205.14
	<b>Total</b>	<b>5781.47</b>	<b>7362.97</b>	<b>7353.53</b>	<b>14716.50</b>

16. The Commission in order dated 2.3.2017 in Petition No. 188/MP/2014, had directed 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. Accordingly, the following Net Capital cost have been considered as on 1.4.2014 for working out the Fee & 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’ only as under:-

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion		
			Replaced SCADA / EMS – State Portion	Remaining “Existing Assets – State Portion”	Total
Retained gross capital cost as on 1.4.2014	Loan	7328.04	9016.10	9004.55	18020.65
	Equity	1240.26	1983.11	1980.57	3963.68
	<b>Total</b>	<b>8568.30</b>	<b>10999.21</b>	<b>10985.12</b>	<b>21984.33</b>
Salvage value for state portion only (5% of Gross Capital Cost)	Loan	-	450.81	-	450.81
	Equity	-	99.15	-	99.15
	<b>Total</b>	<b>-</b>	<b>549.96</b>	<b>-</b>	<b>549.96</b>
Recoverable capital cost for state portion only (95% of Gross Capital Cost) as on 1.4.2014	Loan	7328.04	8565.29	9004.55	17569.84
	Equity	1240.26	1883.96	1980.57	3864.53
	<b>Total</b>	<b>8568.30</b>	<b>10449.25</b>	<b>10985.12</b>	<b>21434.37</b>
Pro-rata capital cost recovered up to 31.3.2014	Loan	5088.33	6259.69	6251.67	12511.36
	Equity	693.13	1103.27	1101.86	2205.13
	<b>Total</b>	<b>5781.47</b>	<b>7362.97</b>	<b>7353.53</b>	<b>14716.49</b>



<b>Net capital cost as on 1.4.2014</b>	Loan	2239.71	2305.60	2752.87	5058.47
	Equity	547.12	780.68	878.71	1659.39
	<b>Total</b>	<b>2786.83</b>	<b>3086.28</b>	<b>3631.58</b>	<b>6717.86</b>

### **Debt- Equity ratio**

17. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as under:

“(1) For a project declared under commercial operation on or after 1.4.2014, the debt- equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.”

“(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation”

18. 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 – State Portion	Remaining “Existing Assets – State Portion	Total
Net capital cost as on 1.4.2014	Loan	2239.71	2305.60	2752.87	5058.47
	Equity	547.12	780.68	878.71	1659.39
	<b>Total</b>	<b>2786.83</b>	<b>3086.28</b>	<b>3631.58</b>	<b>6717.86</b>
Debt-Equity Ratio	Debt	80.37%	74.70%	75.80%	75.30%
	Equity	19.63 %	25.30%	31.53 %	24.70%
	<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>



## **Rates for recovery of loan and equity**

### **Capital recovery for loan**

19. The weighted average rate of interest works out to be 4.8414 % which has been applied for calculating the Capital Recovery Factor for loan. The details of loan are attached at Annexure-1 of the order.

### **Capital recovery for equity**

20. The methodology as used for true-up calculation for the period 2009-14, approved vide Commission's 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**

21. 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' has been worked out as under:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Non-Microwave – <b>Central Portion</b>	0.027122	0.037841	0.064665	0.252527
Non-Microwave – <b>Replaced SCADA / EMS – State Portion</b>	0.049761	0.113365	-	-
Non-Microwave – <b>Remaining Existing Assets – State Portion</b>	0.027122	0.037841	0.064665	0.252527

22. Similarly, 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 considered as under:-



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

23. Based on above factors, monthly capital recovery charges for loan 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 under:-

Particulars	(₹ in lakh)			
	2014-15	2015-16	2016-17	2017-18
Non-Microwave – <b>Central Portion</b>	60.74	60.74	60.74	60.74
Non-Microwave – <b>Replaced SCADA / EMS – State Portion</b>	114.73	114.73	-	-
Non-Microwave – <b>Remaining Existing Assets – State Portion</b>	74.66	74.66	74.66	74.66

24. 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 under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Non-Microwave – <b>Central Portion</b>	17.60	17.60	17.60	17.60	17.60
Non-Microwave – <b>Replaced SCADA / EMS – State Portion</b>	42.68	42.68	-	-	42.68
Non-Microwave – <b>Remaining Existing Assets – State Portion</b>	28.27	28.27	28.27	28.27	28.27

25. Accordingly, the following recovery of capital during 2014-19 has been worked:-

Particulars	Capital	Central Portion	(₹ in lakh)		
			State Portion		Total
			Replaced SCADA / EMS – State Portion	Remaining “Existing Assets – State Portion	
Capital cost recovered during	Loan	2239.71	2305.60	2752.87	5058.47
	Equity	547.12	780.68	878.71	1659.39



2014-19	<b>Total</b>	<b>2786.83</b>	<b>3086.28</b>	<b>3631.58</b>	<b>6717.86</b>
Net capital cost as on 31.3.2019 -	Loan	-	-	-	-
	Equity	-	-	-	-
	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

26. The accelerated depreciation in respect of “Replaced SCADA / EMS – State Portion” is being recovered up to 30.9.2016. Accordingly, 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 31.7.2017. Therefore, the capital cost thereof shall be completely recovered as on that date.

27. The Commission in its order dated 17.12.2013 in Petition No. 59/TT/2012, had directed the petitioner to adjust the excess amount recovered during 2001-04 and 2004-09 period in future instalments by reducing the number of instalments. The Commission has observed as below:-

“17. ...The Appellate Tribunal in its judgment dated 11.11.2011 upheld the contention of HVPNL and concluded as under:-

“We would, therefore, direct the Central Commission to work out the monthly instalments by which the amount of loan and equity is fully recovered with the recovery factor decided by its impugned Order dated 11.4.2008. In other words excess amount recovered by the POWERGRID (R-2) would be adjusted in future instalments by reducing number of instalments appropriately. The recovery of loan and equity would stop thereafter.”

28. In view of the above direction of the Appellate Tribunal, the excess amount recovered by the petitioner would be adjusted in future instalments by reducing number of instalments appropriately and recovery of loan and equity would stop thereafter.

29. Accordingly, in compliance with the directions of the Appellate Tribunal, the recovery of loan and equity has been re-calculated by adopting monthly recovery charge method. The monthly recovery charges, earlier considered on annualized basis, have been worked out for 2002-04 and 2004-09. As a result the excess capital recovered during 2001-04 and



2004-09 works out to:-

Period	Central Portion		State Portion	
	Loan	Equity	Loan	Equity
2001-04	67.89	14.94	79.13	17.42
2004-09	180.91	43.36	211.62	58.42

30. The excess amounts recovered by the petitioner shall be adjusted in future instalments, beyond 2009-14 periods, by reducing the number of instalments.

### **Return on Equity (ROE)**

31. The petitioner has submitted that it is liable to pay MAT rate of income tax, as such RoE has been calculated @ 19.610 % after grossing up the ROE with MAT rate of 20.961 % based on the rate prescribed by the Commission as per illustration under Regulation 25 (2) (i) of the of the 2014 Tariff Regulations. That as per clause (3) of the Regulation 25 of the 2014 Tariff Regulations, the grossed up rate of ROE at the end of every/financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up rate on ROE after truing up shall be recovered or refunded to beneficiaries on year to year basis. It is further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable /adjustable during / after completion of income tax assessment of the financial year.

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

32. The petitioner has not claimed O&M Expenses for State Portion. The petitioner has submitted the claim of the O&M Expenses for Central portion by escalating the actual O&M



expenditure in 2013-14 @ 3.32% subject to normative rates in terms of Regulation 29 (4) (c) of the 2014 Tariff Regulations.

33. The O&M Expenses for Central portion have been considered by escalating the actual O&M Expenses in 2013-14 with escalation rate of 3.32% and in terms of Commission's order dated 15.7.2016 in Petition No. 19/TT/2015. The details of O&M Expenses allowed are as under:-

(₹ in lakh)			
2014-15	2015-16	2016-17	2017-18*
357.30	369.16	381.42	131.36

\* Pro-rata

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

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

#### **“28. Interest on Working Capital**

(1) The working capital shall cover:

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

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

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29;and

(iii) Operation and maintenance expenses for onemonth”

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

35. The Petitioner is entitled to claim IWC as per the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed as under:-



**(i) Receivables**

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

**(ii) Maintenance spares**

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses. The value of maintenance spares has accordingly been worked out.

**(iii) O & M Expenses**

O & M Expenses have been considered for one month as a component of working capital. The petitioner has claimed O & M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

**(iv) Rate of interest on working capital**

The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points).

36. Accordingly, the IWC as determined is as under:-

	(₹ in lakh)	
<b>Non-Microwave: State SCADA / EMS Portion</b>	<b>2014-15</b>	<b>2015-16</b>
Maintenance Spares (15% of O&M)	0.00	0.00
O&M Expenses (1 Month)	0.00	0.00
Receivables (2 months)	322.07	322.07
<b>Total</b>	<b>322.07</b>	<b>322.07</b>
Rate of Interest on Working Capital	13.50%	13.50%





(₹ in lakh)

<b>Non-Microwave: Central Portion</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Maintenance Spares (15% of O&M)	53.60	55.37	57.21	59.11
O&M Expenses (1 Month)	29.78	30.76	31.78	32.84
Receivables (2 months)	223.14	225.22	227.38	229.61
<b>Total</b>	<b>306.51</b>	<b>311.36</b>	<b>316.38</b>	<b>321.56</b>
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%
<b>Total Interest on Working Capital (Annualized)</b>	<b>41.38</b>	<b>42.03</b>	<b>42.71</b>	<b>43.41</b>

(₹ in lakh)

<b>Non-Microwave: State Portion (After replacing SCADA / EMS)</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
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)	210.60	210.60	210.60	210.60
<b>Total</b>	<b>210.60</b>	<b>210.60</b>	<b>210.60</b>	<b>210.60</b>
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%
<b>Total Interest on Working Capital (Annualized)</b>	<b>28.43</b>	<b>28.43</b>	<b>28.43</b>	<b>28.43</b>

### Annual Fees and charges

37. The detailed calculations of fees and charges being allowed for the instant assets are summarized as under:-

(₹ in lakh)

<b>Non-Microwave: State SCADA / EMS Portion</b>	<b>2014-15</b>	<b>2015-16</b>
Annual Capital Recovery Charges- Total	1888.94	1888.94
O&M Expenses	0.00	0.00
Interest on Working Capital	43.48	43.48
<b>Total Charges</b>	<b>1932.42</b>	<b>1932.42</b>

(₹ in lakh)

<b>Non-Microwave: Central Portion</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Annual Capital Recovery Charges- Total	940.15	940.15	940.15	940.15
O&M Expenses	357.30	369.16	381.42	394.08
Interest on Working Capital	41.38	42.03	42.71	43.41
<b>Total Charges</b>	<b>1338.83</b>	<b>1351.35</b>	<b>1364.28</b>	<b>1377.64</b>



(₹ in lakh)

<b>Non-Microwave: State Portion (After replacing SCADA / EMS)</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Annual Capital Recovery Charges- Total	1235.17	1235.17	1235.17	1235.17
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	28.43	28.43	28.43	28.43
<b>Total Charges</b>	<b>1263.60</b>	<b>1263.60</b>	<b>1263.60</b>	<b>1263.60</b>

38. The petitioner has submitted that the claim for transmission charges and other charges is exclusive of incentive, late payment surcharge, FERV, any statutory taxes, levies, duties, cess filing fees, license fee, RLDC fees and charges or any other kind of impositions etc. The same if imposed shall be borne and additionally paid by the respondents. The petitioner is entitled to FERV as provided under Regulation 50 of the 2014 Tariff Regulations and the petitioner can make other claims as per the 2014 Tariff Regulations.

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

39. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with clause (1) of Regulation 52 of the 2014 Tariff Regulations.

#### **Licence Fee and RLDC Fees and Charges**

40. The petitioner has requested to allow the petitioner to bill and recover Licence fee and RLDC fees and charges, separately from the respondents. The Petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2)(b) and (2)(a), respectively, of Regulation 52 of the 2014 Tariff Regulations.



### **Service Tax**

41. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We have considered the submission of the petitioner. Service tax is not levied on transmission services. Further, service tax is subsumed by GST and hence petitioner's prayer has become infructuous.

### **Goods and Services Tax**

42. The petitioner has prayed for reimbursement of tax, if any, on account of proposed implementation of GST. GST is not levied on transmission services at present. Hence, we are of the view that petitioner's prayer is premature.

### **Sharing of Transmission Charges**

43. 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 shall be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges & Losses) Regulations, 2010 as amended time to time. The fees and charges for the Unified Scheme under the State Sector shall also be shared by the respective State as provided under Regulation 43 of the 2014 Tariff Regulations.

44. This order disposes of Petition No. 218/TT/2017

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

Sd/-  
**(A.S. Bakshi)**  
Member

Sd/-  
**(A.K. Singhal)**  
Member

Sd/-  
**(P. K. Pujari)**  
Chairperson



**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN**

(₹ in lakh)

Name of the Element:	Tariff for Unified Load Dispatch & Communication (ULDC) Scheme in Northern Region			
Actual DOCO:	1.8.2002			
2014-19				
Loan	Opening (Net O/S as on 01.04.2014)	Rate of interest	Interest	Weighted Average Rate of Interest
LIC Tranche 2 (Replacement of GOI Loan in 2003-04)	2793.53	6.3000%	175.99	
Bond X	583.33	10.9000%	63.58	
Bond XII	47.25	9.7000%	4.58	
Oriental Bank of Commerce	207.50	12.3500%	25.63	
PNB II	248.33	11.6000%	28.81	
IBRD-II	3582.33	1.7500%	62.69	
<b>Total Loan</b>	<b>7462.27</b>		<b>361.28</b>	<b>4.8414%</b>

