

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 545/TT/2014

Coram:

Shri Gireesh B. Pradhan, Chairperson

Shri A.K. Singhal, Member

Shri A.S. Bakshi, Member

Dr. M.K. Iyer, Member

Date of Hearing : 22.03.2016

Date of Order : 15.07.2016

In the matter of:

Miscellaneous petition for approval under sub-section 4 of Section 28 of the Electricity Act, 2003 for determination of (i) Truing up of fee and charges for the period 2009-14 block and (ii) fee and charges for the period 2014-19 block for Unified Load Despatch and Communication Scheme (PGCIL portion i.e. Communication system portion and SLDC system retained by PGCIL after formation of POSOCO) in Southern Region.

And in the matter of:

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

.....Petitioner

Vs

1. NTPC Limited,
NTPC Bhawan, Core-7, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110 003
2. Neyvelli Lignite Corporation Limited,
P.O. Neyvelli-607 801,
Cuddalore District, Tamil Nadu
3. Nuclear Power Corporation of India Limited,
Nabhkiya Bhawan, Anu-Shakti Nagar,
Mumbai-400 094
4. LANCO-Kondapalli Power Private Limited,
Plot No. 4, Software Units Layout,
Hitech City, Madhapur, Hyderabad-500 081



5. NTPC Tamil Nadu Energy Company Limited,
Vallur Thermal Power Station,
Vellivoyalchavadi P.O, Ponneri Taluk,
Thiruvallur Dist., Chennai-600 103
6. Simhapuri Energy Private Limited,
Madhucon Green Lands,
6-3-866/2, 3rd Floor, Begumpet,
Hyderabad-500 016
7. Meenakshi Energy Private Limited,
8-2-418, Meenakshi House,
Road No. 7, Banjara Hills,
Hyderabad-500 034
8. Andhra Pradesh Power Co-ordination Committee,
APTRANSCO, Vidyut Soudha,
Hyderabad-500 082
9. Telangana state Power Co-ordination committee,
TSTRANSCO, Vidyut Soudha,
Hyderabad-500 082
10. Power Company of Karnataka Limited,
Room No; 503, KPTCL Building, Kaveri Bhavan,
Bangalore-560 009, Karnataka State
11. Kerala State Electricity Board,
Vydyuthi Bhavanam, Pattom,
Thiruvananthapuram-695 004
12. TANGEDCO,
7th Floor, Eastern Wing,
144, Anna Salai, Chennai-600 002
13. Electricity Department,
Government of Poducherry,
Poducherry-605 001
14. Electricity Department,
Government of Goa,
Curti-Ponda-Goa-403 40

Respondents

For petitioner : Shri S.S Raju, PGCIL
Shri Jasbir Singh, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Shri Anshul Garg, PGCIL



For respondents : None

ORDER

The petition has been filed by Power Grid Corporation of India Limited (PGCIL) under sub-section (4) of Section 28 and Section 79(1)(d) of Electricity Act, 2003 for truing up of annual fee and charges for Communication System Portion and SLDC System retained in Southern Region for the 2009-14 period based on actual expenditure for the period 1.4.2009 to 31.3.2014 and for determination of tariff for the period from 1.4.2014 to 31.3.2019.

2. The details of the assets covered in the instant petition are given in the table below. The tariff for the 2009-14 tariff period for the instant assets was allowed vide order dated 24.12.2013 in Petition No. 60/TT/2012. The instant assets are in operation since 1.7.2002.

Details of the Asset
Communication & SLDC system retained by PGCIL

3. This order has been issued after considering the petitioner's affidavit dated 25.4.2016.

4. 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"). The petitioner has served the petition on the respondents. None of the respondents have filed any reply.



5. The hearing in the matter was held on 22.3.2016. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.

Brief Background

6. As per the directives of Government of India vide order dated 4.7.2008, Power System Operation Corporation Ltd. (POSOCO), a wholly owned subsidiary of Power Grid Corporation of India Ltd. was created and POSOCO is responsible for system operation of National Load Despatch Centre (NLDC) and Regional Load Despatch Centres (RLDCs). Pursuant to Satnam Singh Committee's report, the assets pertaining to system operations have been transferred to POSOCO for which separate tariff orders had been issued by the Commission.

7. Government of India had also 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 the system operation. The Task Force made certain recommendations with regard to the ownership of the assets. The petitioner constituted committees at the regional level, subsequent to the Task Force's report, to identify the assets to be transferred to POSOCO.

8. Thereafter, the petitioner filed a Miscellaneous Petition No. 68/2010 under sub-section (4) of Section 28 of Electricity Act 2003 and Regulations 44 "Power to Relax" of the CERC (Terms and Conditions of Tariff) Regulations 2009 for fixation of tariff norms for recovery of cost for the assets ("Communication system" and "Sub-Load Dispatch Centre system") to be retained/to be installed by the petitioner after formation of POSOCO for the period 2009-14 block.



9. The Commission in Petition No. 68/2010 vide order dated 8.12.2011, had observed as under:-

“9.....Since the communication system and SLDC system form part of the assets of the CTU, there is a requirement to specify regulations for determination of tariff of these assets. We direct the staff of the Commission to undertake the exercise separately and include these assets of CTU in the tariff regulations applicable for the next tariff period i.e.2014-19. As regards the tariff of these assets for the period 2009-14, we are not inclined to determine the tariff of these assets by exercising our power to relaxation under Regulation 44 of the 2009 regulations since there is no provision for determination of tariff for the assets covered under the communication system and ULDC system. We are of the view that the tariff of these assets shall be determined under our general power of determination of tariff for inter-State transmission system under section 79(1)(d) of the Act.....”

“.....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.”

“21. We have considered the submission of the petitioner and the respondents. We are of the view that replacement of microwave links with fibre optic links should be implemented as agreed by the beneficiaries to ensure safe and reliable operation of the power system. Moreover, the petitioner has submitted that surrender of the microwave frequencies would save substantial cost and the fibre optic system would be beneficial in the long run as the fibre optic communication network is required for implementation of new technologies like Wide Area Measurement System (WAMS), Special Protection Schemes (SPS) etc. in view of fast development and complexity of the power system in the country. As regards the regulatory approval, we are of the view that since the project has been agreed to be implemented by the constituents of each of the regions, regulatory approval is not considered necessary. The petitioner is granted liberty to approach the Commission for determination of tariff for the fibre optic network being installed in lieu of microwave links for each of the region separately. As regards the submission of UPPTCL, it is clarified that if the state portion is not being implemented by it separately as proposed earlier, the same shall be implemented by the petitioner and UPPTCL would be required to share the tariff in proportion to the assets being utilised by it. It is however made clear that the timeline for replacement of the digital microwave by optical fibre should be strictly complied with.”

10. In the absence of any provision in the 2009 Tariff Regulations regarding determination of tariff of communication system and ULDC system of the petitioner and to continue with the levelised tariff for the instant assets, the annual fee and



charges of the communication system and SLDC System retained were approved vide order dated 24.12.2013 in Petition No. 60/TT/2012, as per the principles approved by the Commission vide order dated 8.12.2011 in Petition No 68/2010.

11. The net capital cost as on 1.4.2009 of the instant assets as approved vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 is as under:-

(₹ in lakh)

Particulars	Capital	Microwave		Non-Microwave	
		Central Portion	State Portion	Central Portion	State Portion
Retained Gross Capital Cost as on 31.3.2009	Loan	1540.73	7939.95	6928.72	28067.08
	Equity	185.65	1073.47	834.89	3794.62
	Total	1726.39	9013.42	7763.62	31861.70
Capital Cost Recovered up to 31.3.2009	Loan	512.33	2631.81	2303.95	9303.24
	Equity	38.76	220.55	174.31	779.63
	Total	551.09	2852.36	2478.26	10082.87
Net Capital Cost as on 1.4.2009	Loan	1028.41	5308.14	4624.77	18763.84
	Equity	146.89	852.92	660.58	3014.99
	Total	1175.30	6161.06	5285.35	21778.83

12. The annual fee and charges for 2009-14 as approved, vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 for Microwave system and for Non-Microwave system for both Central Portion and State Portion respectively are as hereunder:-

(₹ in lakh)

Particulars	Microwave-Central Portion		
	2009-10	2010-11	2011-12
Annual Capital Recovery Charge-Loan	377.41	377.41	377.41
Annual Capital Recovery Charge-Equity	61.54	61.54	61.54
Annual Capital Recovery Charge-Total	438.94	438.94	438.94
O&M Expenses	-	-	-
Interest on Working Capital	9.15	9.15	9.15
Total Fee & Charges	448.09	448.09	448.09
Particulars	Microwave-State Portion		
	2009-10	2010-11	2011-12
Annual Capital Recovery Charge-Loan	1947.98	1947.98	1947.98
Annual Capital Recovery Charge-Equity	357.31	357.31	357.31
Annual Capital Recovery Charge-Total	2305.29	2305.29	2305.29
O&M Expenses	-	-	-



Interest on Working Capital	48.05	48.05	48.05
Total Fee & Charges	2353.34	2353.34	2353.34

(₹ in lakh)

Particulars	Non-Microwave-Central Portion				
	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Capital Recovery Charge-Loan	721.68	721.68	721.68	721.68	721.68
Annual Capital Recovery Charge-Equity	142.34	142.34	142.34	142.34	142.34
Annual Capital Recovery Charge-Total	864.02	864.02	864.02	864.02	864.02
O&M Expenses	298.20	314.06	239.91	541.13	510.92
Interest on Working Capital	32.92	33.72	30.01	45.08	43.56
Total Fee & Charges	1195.15	1211.80	1133.94	1450.23	1418.51
Particulars	Non-Microwave-State Portion				
	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Capital Recovery Charge-Loan	2928.04	2928.04	2928.04	2928.04	2928.04
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	649.67	649.67
Annual Capital Recovery Charge-Total	3577.70	3577.70	3577.70	3577.70	3577.70
O&M Expenses	-	-	-	-	-
Interest on Working Capital	74.57	74.57	74.57	74.57	74.57
Total Fee & Charges	3652.27	3652.27	3652.27	3652.27	3652.27

Truing-up of Fee and Charges for 2009-14 Tariff Period

Capital cost

13. The net capital cost as approved vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 has been considered as on 1.4.2009 for the purpose of truing up of fee and charges for the instant assets as discussed at para-11. The petitioner has not claimed any additional capital expenditure during 2009-14 tariff period.

Debt-Equity ratio

14. The debt: equity ratio as on 1.4.2009, as approved vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 has been considered for the purpose of truing up and it is as follows:-



(₹ in lakh)

Particulars	Microwave					
	Central portion		State portion		Total	
	Amount	%	Amount	%	Amount	%
Loan/Debt	1028.41	87.50	5308.14	86.16	6336.55	86.37
Equity	146.89	12.50	852.92	13.84	999.81	13.63
Total	1175.30	100.00	6161.06	100.00	7336.36	100.00
Particulars	Non-Microwave					
	Central portion		State portion		Total	
	Amount	%	Amount	%	Amount	%
Loan/Debt	4624.77	87.50	18763.84	86.16	23388.61	86.42
Equity	660.58	12.50	3014.99	13.84	3675.57	13.58
Total	5285.35	100.00	21778.83	100.00	27064.19	100.00

15. The total capital cost in respect of Microwave Portion has been recovered during the period 2009-14, in line with order dated 8.12.2011 in Petition No. 68/TT/2010. Thus, the debt; equity ratio as on 31.3.2014 for Non-Microwave system is as follows:-

(₹ in lakh)

Particulars	Non-Microwave					
	Central portion		State portion		Total	
	Amount	%	Amount	%	Amount	%
Loan/Debt	2046.05	84.98	8375.95	83.54	10421.99	83.82
Equity	361.63	15.02	1650.52	16.46	2012.15	16.18
Total	2407.68	100.00	10026.47	100.00	12434.15	100.00

Rates for Recovery of loan and equity

16. The Capital Recovery Factor for loan in respect of instant assets has been calculated by applying weighted average rate of interest on the basis of the impact due to change in floating rate of interest of loan and it works out to be 5.9799%, 5.5776% and 5.2412% for 2009-10, 2010-11 and 2011-12 in respect of Microwave system and 5.9799%, 5.5776%, 5.2412%, 4.5764% and 3.1806% for 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 in respect of Non-Microwave system respectively. Thus, the rates considered on annual basis, have been converted to monthly rates. The details of weighted average rate of interest calculation are



attached at Annexure-3 to this order. Thus, monthly recovery factors for loan for Central Portion and State Portion for instant assets are as under:-

CRF for loan to be considered for Fee & Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Microwave-Central Portion	0.030413	0.044131	0.085718	-	-
Microwave-State Portion	0.030413	0.044131	0.085718	-	-
Non-Microwave-Central Portion	0.012821	0.014001	0.015665	0.017886	0.020989
Non-Microwave-State Portion	0.012821	0.014001	0.015665	0.017886	0.020989

17. The Capital Recovery Factor for equity has been considered on the same basis as approved vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 and on post-tax return on equity of 15.50%. Thus, monthly recovery factors for equity for Central Portion and State Portion for instant assets are as under:-

CRF for equity to be considered for Fee & Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Microwave-Central Portion	0.034911	0.048725	0.090494	-	-
Microwave-State Portion	0.034911	0.048725	0.090494	-	-
Non-Microwave-Central Portion	0.017957	0.019204	0.020898	0.023295	0.026892
Non-Microwave-State Portion	0.017957	0.019204	0.020898	0.023295	0.026892

18. In view of above, the amount of monthly capital recovery charges for loan and equity both for Central and State portions for instant assets have been considered by using respective Capital Recovery Factors and are as follows:-

(₹ in lakh)

Monthly capital recovery charges for loan					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Microwave-Central Portion	31.28	31.15	31.09	-	-
Microwave-State Portion	161.44	160.78	160.49	-	-
Non-Microwave-Central Portion	59.30	58.49	57.91	56.94	55.29
Non-Microwave-State Portion	240.58	237.31	234.94	233.08	226.34



(₹ in lakh)

Monthly capital recovery charges for equity					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Microwave-Central Portion	5.13	5.13	5.13	-	-
Microwave-State Portion	29.78	29.78	29.78	-	-
Non-Microwave-Central Portion	11.86	11.86	11.86	11.86	11.86
Non-Microwave-State Portion	54.14	54.14	54.14	54.14	54.14

19. Accordingly, the recovery of capital during 2009-14 has been worked out. Further, in line with order dated 8.12.2011 in Petition No. 68/TT/2010, the total capital cost in respect of Microwave Portion has been recovered during the period 2009-14. The details are as under:-

Particulars	(₹ in lakh)		
	Capital	Central Portion	State Portion
Capital Cost Recovered during 2009-14-“Microwave”	Loan	1028.41	5308.14
	Equity	146.89	852.92
	Total	1175.30	6161.06
Capital Cost Recovered during 2009-14-“Non-Microwave”	Loan	2578.72	10387.89
	Equity	298.95	1364.47
	Total	2877.68	11752.36

Operation & Maintenance Expenses (O&M Expenses)

20. The petitioner has not submitted any claim for O&M Expenses in case of Microwave system for Central Portion. The petitioner has submitted claim for O&M Expenses in case of Non-Microwave system for Central Portion on actual basis. The details of O&M Expenses claimed earlier by the petitioner on actual basis for 2009-10, 2010-11 and 2011-12 but on projected basis for 2012-13 and 2013-14 and allowed vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 are as follows:-



(₹ in lakh)

Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed by petitioner in P. No. 60/TT/2012	299.22	318.02	317.62	542.77	512.72
Amount allowed vide order dated 24.12.2013 and corrigendum dated 19.6.2014	298.20	314.06	239.91	541.13	510.92
Amount disallowed	1.02	3.96	77.71	1.64	1.80

21. The claim for actual O&M Expenses amounting to ₹1.02 lakh, ₹3.96 lakh and ₹77.71 lakh for 2009-10, 2010-11 and 2011-12 was disallowed as the petitioner had not submitted details of the amounts claimed as “miscellaneous expenses”. The petitioner in the instant petition has not revised its claim of O&M Expenses for 2009-10, 2010-11 and 2011-12 and has submitted the details of miscellaneous expenses earlier disallowed in Petition No. 60/TT/2012 for 2009-10, 2010-11 and 2011-12. In line with decision earlier taken vide order dated 11.6.2014 in Petition No. 3/RP/2014 we are of the view that in case of details submitted, the O&M Expenses claimed on actual basis for 2009-10, 2010-11 and 2011-12 are to be allowed for determination of fee and charges.

22. However, the petitioner vide Auditors' Certificate dated 17.6.2014 has submitted detailed break-up of actual O&M Expenses for 2009-10, 2010-11 and 2011-12 and for its revised claim of O&M Expenses on actual basis for ₹489.61 lakh and ₹750.52 lakh for 2012-13 and 2013-14 respectively. It is noted that the petitioners' claim for O&M Expenses include amounts of ₹76.86 lakh, ₹372.53 lakh and ₹511.77 lakh for 2011-12, 2012-13 and 2013-14 respectively towards Foreign Exchange Rate Variation (FERV). Further, the petitioners' claim for O&M Expenses also include amounts of ₹0.31 lakh, ₹4.59 lakh and ₹77.78 lakh for 2009.10, 2012-13 and 2013-14 respectively as one time lease charges, which are not allowable as O&M Expenses in line with the principles approved by the Commission vide order



dated 8.12.2011 in Petition No. 68/2010. Accordingly, the details of O&M Expenses allowed in the instant petition are as follows:-

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Claimed by petitioner	299.22	318.02	317.62	489.61	750.52
Amount now allowed	298.91	318.02	240.76	112.49	160.97
Amount disallowed as O&M Expenses	0.31	-	76.86	377.12	589.55

23. The petitioners' claim for ₹76.86 lakh, ₹372.52 lakh and ₹511.77 lakh for 2011-12, 2012-13 and 2013-14 respectively on account of FERV and ₹0.31 lakh, ₹4.59 lakh and ₹77.78 lakh for 2009-10, 2012-13 and 2013-14 respectively on account of one time lease charges was further examined. As per principles laid down vide order dated 8.12.2011 in Petition No. 68/2010, such non-recurring expenditure is not allowable as O&M Expenses as it would make them a part of actual O&M Expenses and hence broaden the base for O&M Expenses to be allowed/ escalated for the purpose of determination of fee and charges during 2014-19.

24. However, we allow the amounts of ₹0.31 lakh, ₹4.59 lakh and ₹77.78 lakh for 2009-10, 2012-13 and 2013-14 respectively, on account of one time lease charges separately to be recovered directly from the beneficiaries or the long term transmission customers/DICs, as the case maybe.

25. As regards FERV, Regulation 41 of the 2009 Tariff Regulations specifies as under:-

“41. Recovery of cost of hedging Foreign Exchange Rate Variation.

Recovery of cost of hedging and foreign exchange rate variation shall be made directly by the generating company or the transmission licensee, as the case may be,



from the beneficiaries the transmission customers, as the case may be, without making any application before the Commission:

Provided that in case of any objections by the beneficiaries to the amounts claimed on account of cost of hedging or foreign exchange rate variation, the generating company or the transmission licensee, as the case may be, may make an appropriate application before the Commission for its decision.”

26. Drawing analogy from Regulation 41 of the 2009 Tariff Regulations, the petitioner is allowed to recover amounts of ₹76.86 lakh, ₹372.53 lakh and ₹511.77 lakh for 2011-12, 2012-13 and 2013-14 respectively, on account of FERV directly from the beneficiaries or the long term transmission customers/DICs, as the case maybe, without making any application before the Commission.

Interest on working capital

27. The petitioner has not submitted any claim for O&M Expenses in case of Microwave system-Central Portion. Further, in the case of State Portion of both Microwave system and Non-Microwave system, O&M expenses are to borne by the concerned states. Accordingly, no O&M expenses and no maintenance spares have been considered for working out interest on working capital. Receivables for two months and SBI Base Rate as on 1.4.2009 i.e. 8.75% Plus 350 bps (12.25%) have been considered as the rate of interest on working capital for the Microwave system-Central Portion, Microwave system-State Portion and Non-Microwave system-State Portion. The necessary computations in support of interest on working capital for Microwave system-Central Portion, Microwave system-State Portion and Non-Microwave system-State Portion are as under:-

Particulars	Microwave-Central Portion			Microwave-State Portion		
	2009-10	2010-11	2011-12	2009-10	2010-11	2011-12
Maintenance Spares	-	-	-	-	-	-
O & M Expenses	-	-	-	-	-	-
Receivables	74.33	74.07	73.95	390.39	389.05	388.46
Total	74.33	74.07	73.95	390.39	389.05	388.46



Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	9.11	9.07	9.06	47.82	47.66	47.59

(₹ in lakh)

Particulars	Non-Microwave-State Portion				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	-	-	-	-	-
O & M Expenses	-	-	-	-	-
Receivables	601.72	595.05	590.22	586.41	572.66
Total	601.72	595.05	590.22	586.41	572.66
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	73.71	72.89	72.30	71.84	70.15

28. However, in the case of Non-Microwave system-Central Portion, the petitioner has claimed O&M Expenses and accordingly O&M Expenses for 1 month, Maintenance spares @15% of O&M Expenses, receivables for two months and SBI Base Rate as on 1.4.2009 i.e. 8.75% Plus 350 bps (12.25%) have been considered as the rate of interest on working capital for the Non-Microwave system-Central Portion. The necessary computations of interest on working capital for Non-Microwave system-Central Portion are as under:-

(₹ in lakh)

Particulars	Non-Microwave-Central Portion				
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	44.84	47.70	36.11	16.87	24.15
O & M Expenses	24.91	26.50	20.06	9.37	13.41
Receivables	197.59	199.29	184.58	160.15	165.27
Total	267.34	273.50	240.76	186.40	202.83
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest	32.75	33.50	29.49	22.83	24.85

Annual Fee and charges-2009-14

29. The detailed computation of the various components of the trued up annual fee and charges for the instant assets for the tariff period 2009-14 is summarised as under:-

(₹ in lakh)

Microwave-Central Portion-fee and charges			
Particulars	2009-10	2010-11	2011-12
Opening Gross Capital Cost	1726.39	1726.39	1726.39
Opening Gross Notional Loan	1540.73	1540.73	1540.73



Opening Gross Equity	185.65	185.65	185.65
Recovered Gross Capital Cost (As on 1st April)	551.09	915.30	1306.98
Recovered Gross Notional Loan	512.33	834.90	1178.00
Recovered Gross Equity	38.76	80.41	128.99
Opening Net Capital Cost	1175.30	811.09	419.40
Opening Net Notional Loan	1028.41	705.84	362.74
Opening Net Equity	146.89	105.25	56.67
Recovered Capital Cost (During the Year)	364.21	391.68	419.40
Recovered Notional Loan	322.57	343.10	362.74
Recovered Equity	41.65	48.58	56.67
Closing Net Capital Cost	811.09	419.40	0.00
Closing Net Notional Loan	705.84	362.74	0.00
Closing Net Equity	105.25	56.67	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 (Capital to be recovered up to 31.3.2012)	3.00	2.00	1.00
Months	36.00	24.00	12.00
Weighted Average Rate of Interest p.a.	5.9799%	5.5776%	5.2412%
Weighted Average Rate of Interest p.m.	0.4983%	0.4648%	0.4368%
Monthly Recovery Factors-Loan	0.030413	0.044131	0.085718
Monthly Capital Recovery Charge-Loan	31.28	31.15	31.09
Annual Capital Recovery Charge-Loan	375.32	373.79	373.12
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%
Monthly Recovery Factors-Equity	0.034911	0.048725	0.090494
Monthly Capital Recovery Charge-Equity	5.13	5.13	5.13
Annual Capital Recovery Charge-Equity	61.54	61.54	61.54
Monthly Capital Recovery Charge-Total	36.40	36.28	36.22
Annual Capital Recovery Charge-Total	436.86	435.33	434.65
O&M Expenses (Annualized)	0.00	0.00	0.00
Allowable Fee & Charges			
Particulars	2009-10	2010-11	2011-12
Annual Capital Recovery Charge-Loan	375.32	373.79	373.12
Annual Capital Recovery Charge-Equity	61.54	61.54	61.54
Annual Capital Recovery Charge-Total	436.86	435.33	434.65
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	9.11	9.07	9.06
Total Fee & Charges	445.96	444.40	443.71
Microwave-State Portion-fee and charges			
Particulars	2009-10	2010-11	2011-12
Opening Gross Capital Cost	9013.42	9013.42	9013.42
Opening Gross Notional Loan	7939.95	7939.95	7939.95
Opening Gross Equity	1073.47	1073.47	1073.47



Recovered Gross Capital Cost (As on 1st April)	2852.36	4759.12	6812.12
Recovered Gross Notional Loan	2631.81	4296.76	6067.69
Recovered Gross Equity	220.55	462.36	744.43
Opening Net Capital Cost	6161.06	4254.30	2201.30
Opening Net Notional Loan	5308.14	3643.19	1872.27
Opening Net Equity	852.92	611.11	329.04
Recovered Capital Cost (During the Year)	1906.76	2053.00	2201.30
Recovered Notional Loan	1664.95	1770.93	1872.27
Recovered Equity	241.81	282.07	329.04
Closing Net Capital Cost	4254.30	2201.30	0.00
Closing Net Notional Loan	3643.19	1872.27	0.00
Closing Net Equity	611.11	329.04	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 (Capital to be recovered up to 31.3.2012)	3.00	2.00	1.00
Months	36.00	24.00	12.00
Weighted Average Rate of Interest p.a.	5.9799%	5.5776%	5.2412%
Weighted Average Rate of Interest p.m.	0.4983%	0.4648%	0.4368%
Monthly Recovery Factors-Loan	0.030413	0.044131	0.085718
Monthly Capital Recovery Charge-Loan	161.44	160.78	160.49
Annual Capital Recovery Charge-Loan	1937.23	1929.31	1925.84
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%
Monthly Recovery Factors-Equity	0.034911	0.048725	0.090494
Monthly Capital Recovery Charge-Equity	29.78	29.78	29.78
Annual Capital Recovery Charge-Equity	357.31	357.31	357.31
Monthly Capital Recovery Charge-Total	191.21	190.55	190.26
Annual Capital Recovery Charge-Total	2294.54	2286.62	2283.16
O&M Expenses (Annualized)	0.00	0.00	0.00
Allowable Fee & Charges			
Particulars	2009-10	2010-11	2011-12
Annual Capital Recovery Charge-Loan	1937.23	1929.31	1925.84
Annual Capital Recovery Charge-Equity	357.31	357.31	357.31
Annual Capital Recovery Charge-Total	2294.54	2286.62	2283.16
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	47.82	47.66	47.59
Total Fee & Charges	2342.36	2334.28	2330.74

(₹ in lakh)

Non-Microwave: Central Portion-fee and Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Capital Cost	7763.62	7763.61	7763.61	7763.61	7763.61
Opening Gross Notional Loan	6928.72	6928.72	6928.72	6928.72	6928.72
Opening Gross Equity	834.89	834.89	834.89	834.89	834.89



Recovered Gross Capital Cost (As on 1st April)	2478.26	2968.29	3499.40	4071.15	4688.25
Recovered Gross Notional Loan	2303.95	2751.06	3232.11	3745.47	4294.44
Recovered Gross Equity	174.31	217.23	267.29	325.69	393.81
Opening Net Capital Cost	5285.35	4795.32	4264.22	3692.46	3075.36
Opening Net Notional Loan	4624.77	4177.66	3696.61	3183.25	2634.28
Opening Net Equity	660.58	617.66	567.60	509.21	441.09
Recovered Capital Cost (During the Year)	490.03	531.11	571.75	617.10	667.69
Recovered Notional Loan	447.11	481.05	513.36	548.98	588.23
Recovered Equity	42.92	50.06	58.40	68.12	79.46
Closing Net Capital Cost	4795.32	4264.22	3692.46	3075.36	2407.68
Closing Net Notional Loan	4177.66	3696.61	3183.25	2634.28	2046.05
Closing Net Equity	617.66	567.60	509.21	441.09	361.63
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 (Capital to be recovered up to 30.6.2017)	8.25	7.25	6.25	5.25	4.25
Months	99.00	87.00	75.00	63.00	51.00
Weighted Average Rate of Interest p.a.	5.9799%	5.5776%	5.2412%	4.5764%	3.1806%
Weighted Average Rate of Interest p.m.	0.4983%	0.4648%	0.4368%	0.3814%	0.2650%
Monthly Recovery Factors-Loan	0.012821	0.014001	0.015665	0.017886	0.020989
Monthly Capital Recovery Charge-Loan	59.30	58.49	57.91	56.94	55.29
Annual Capital Recovery Charge-Loan	711.55	701.89	694.89	683.24	663.49
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors-Equity	0.017957	0.019204	0.020898	0.023295	0.026892
Monthly Capital Recovery Charge-Equity	11.86	11.86	11.86	11.86	11.86
Annual Capital Recovery Charge-Equity	142.34	142.34	142.34	142.34	142.34
Monthly Capital Recovery Charge-Total	71.16	70.35	69.77	68.80	67.15
Annual Capital Recovery Charge-Total	853.89	844.23	837.23	825.58	805.83
O&M Expenses (Annualized)	298.91	318.02	240.76	112.49	160.97
Allowable Fee & Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Capital Recovery Charge-Loan	711.55	701.89	694.89	683.24	663.49



Annual Capital Recovery Charge-Equity	142.34	142.34	142.34	142.34	142.34
Annual Capital Recovery Charge-Total	853.89	844.23	837.23	825.58	805.83
O&M Expenses	298.91	318.02	240.76	112.49	160.97
Interest on Working Capital	32.75	33.50	29.49	22.83	24.85
Total Fee & Charges	1185.55	1195.75	1107.48	960.90	991.64
Non-Microwave: State Portion-fee and Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Capital Cost	31861.70	31861.70	31861.70	31861.70	31861.70
Opening Gross Notional Loan	28067.08	28067.08	28067.08	28067.08	28067.08
Opening Gross Equity	3794.62	3794.62	3794.62	3794.62	3794.62
Recovered Gross Capital Cost (As on 1st April)	10082.87	12092.79	14273.01	16506.26	19064.53
Recovered Gross Notional Loan	9303.24	11117.29	13069.02	15035.74	17283.10
Recovered Gross Equity	779.63	975.50	1203.99	1470.52	1781.42
Opening Net Capital Cost	21778.83	19768.91	17588.69	15355.44	12797.17
Opening Net Notional Loan	18763.84	16949.79	14998.06	13031.34	10783.98
Opening Net Equity	3014.99	2819.12	2590.63	2324.10	2013.20
Recovered Capital Cost (During the Year)	2009.92	2180.22	2233.25	2558.27	2770.70
Recovered Notional Loan	1814.05	1951.73	1966.72	2247.36	2408.03
Recovered Equity	195.87	228.49	266.53	310.91	362.67
Closing Net Capital Cost	19768.91	17588.69	15355.44	12797.17	10026.47
Closing Net Notional Loan	16949.79	14998.06	13031.34	10783.98	8375.95
Closing Net Equity	2819.12	2590.63	2324.10	2013.20	1650.52
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 (Capital to be recovered up to 30.6.2017)	8.25	7.25	6.25	5.25	4.25
Months	99.00	87.00	75.00	63.00	51.00
Weighted Average Rate of Interest p.a.	5.9799%	5.5776%	5.2412%	4.5764%	3.1806%
Weighted Average Rate of Interest p.m.	0.4983%	0.4648%	0.4368%	0.3814%	0.2650%
Monthly Recovery Factors - Loan	0.012821	0.014001	0.015665	0.017886	0.020989
Monthly Capital Recovery Charge-Loan	240.58	237.31	234.94	233.08	226.34
Annual Capital Recovery Charge-Loan	2886.93	2847.72	2819.34	2796.98	2716.12
Rate of Return on Equity p.a.	15.500%	15.500%	15.500%	15.500%	15.500%
Rate of Return on Equity p.m.	1.292%	1.292%	1.292%	1.292%	1.292%
Monthly Recovery Factors-	0.017957	0.019204	0.020898	0.023295	0.026892



Equity					
Monthly Capital Recovery Charge-Equity	54.14	54.14	54.14	54.14	54.14
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	649.67	649.67
Monthly Capital Recovery Charge-Total	294.72	291.45	289.08	287.22	280.48
Annual Capital Recovery Charge-Total	3536.60	3497.39	3469.01	3446.65	3365.79
O&M Expenses (Annualized)	0.00	0.00	0.00	0.00	0.00
Allowable Fee & Charges					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Capital Recovery Charge-Loan	2886.93	2847.72	2819.34	2796.98	2716.12
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	649.67	649.67
Annual Capital Recovery Charge-Total	3536.60	3497.39	3469.01	3446.65	3365.79
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	73.71	72.89	72.30	71.84	70.15
Total Fee & Charges	3610.31	3570.28	3541.31	3518.48	3435.94

Determination of Annual Fee and Charges for 2014-19

30. 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 Clause (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 Regulation 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.

31. 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, the tariff of the communication system and ULDC system of the petitioner, 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 annual fee and charges of Non-Microwave system are determined in this order.

32. The annual fee and charges claimed by the petitioner are as hereunder:-

(₹ in lakh)

Particulars	Non-Microwave-Central Portion			
	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Annual Capital Recovery Charges-total	805.21	805.21	805.21	201.30
O & M Expenses	775.44	801.18	827.78	213.82
Interest on working capital	61.37	62.79	64.26	12.97
Total	1642.02	1669.19	1697.26	428.09

(₹ in lakh)

Particulars	Non-Microwave-State Portion			
	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Annual Capital Recovery Charges-total	3343.66	3343.66	3343.66	835.92
O & M Expenses	-	-	-	-
Interest on working capital	76.96	76.96	76.96	19.24
Total	3420.63	3420.63	3420.63	855.16

Capital cost

33. The net capital cost as trued-up and allowed in this order for 2009-14 has been considered as on 1.4.2014 for the purpose of determination of fee and charges for the instant asset. The petitioner has not claimed any additional capital expenditure during 2014-19 tariff period. Accordingly, the capital cost considered for determining fee and charges for 2014-19 tariff period is as under:-

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion
Retained Gross Capital Cost as on 1.4.2014-“Non-Microwave”	Loan	6928.72	28067.08
	Equity	834.89	3794.62
	Total	7763.62	31861.70
Capital Cost Recovered up to 31.3.2014-“Non-Microwave”	Loan	4882.67	19691.13
	Equity	473.27	2144.10
	Total	5355.94	21835.23



Net Capital Cost as on 1.4.2014- “Non-Microwave”	Loan	2046.05	8375.95
	Equity	361.63	1650.52
	Total	2407.68	10026.47

Debt-equity ratio

34. The debt: equity as determined as on 31.3.2014 as discussed at para-15 has been considered as on 1.4.2014 and it is as under:-

(₹ in lakh)

Particulars	Non-Microwave system					
	Central portion		State portion		Total	
	Amount	%	Amount	%	Amount	%
Loan/Debt	2046.05	84.98	8375.95	83.54	10421.99	83.82
Equity	361.63	15.02	1650.52	16.46	2012.15	16.18
Total	2407.68	100.00	10026.47	100.00	12434.15	100.00

Rates for Recovery of loan and equity

35. The Capital Recovery Factor for loan in respect of instant asset has been calculated by applying weighted average rate of interest and it works out to be 2.2926% in case of the instant asset. The details are attached at Annexure-4 of the order. Thus, the rates considered on annual basis, have been converted to monthly rates and are as under:-

CRF for loan to be considered for Fee & Charges				
Particulars	2014-15	2015-16	2016-17	2017-18
Non-Microwave-Central Portion	0.026633	0.038036	0.067690	0.334608
Non-Microwave-State Portion	0.026633	0.038036	0.067690	0.334608

36. The Capital Recovery Factor for equity has been considered on the same basis as approved vide order dated 24.12.2013 and corrigendum dated 19.6.2014 in Petition No. 60/TT/2012 and on post-tax return on equity of 15.50%. Thus, the rates considered on annual basis, have been converted to monthly rates and are as follows:-

CRF for equity to be considered for Fee & Charges				
Particulars	2014-15	2015-16	2016-17	2017-18



Non-Microwave-Central Portion	0.032801	0.044106	0.073762	0.341981
Non-Microwave-State Portion	0.032801	0.044106	0.073762	0.341981

37. In view of above, the amount of monthly capital recovery charges for loan and equity both for Central and State portions for instant asset have been considered by using respective Capital Recovery Factors and are as follows:-

(₹ in lakh)

Monthly capital recovery charges for loan				
Particulars	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Non-Microwave-Central Portion	54.49	54.49	54.49	54.49
Non-Microwave-State Portion	223.07	223.07	223.07	223.07

(₹ in lakh)

Monthly capital recovery charges for equity				
Particulars	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Non-Microwave-Central Portion	11.86	11.86	11.86	11.86
Non-Microwave-State Portion	54.14	54.14	54.14	54.14

38. Accordingly, the recovery of capital during 2014-19 has been worked out. The date of commercial operation of instant asset was 1.7.2002, hence, the instant asset shall complete 15 years as on 30.6.2017. Further, in line with order dated 8.12.2011 in Petition No. 68/TT/2010, the total capital cost in respect of Non-Microwave system shall be recovered upto 30.6.2017 i.e. during 2017-18. The details are as under:-

(₹ in lakh)

Particulars	Capital	Central Portion	State Portion
Capital Cost Recovered during 2014-19-“Non-Microwave”	Loan	2046.05	8375.95
	Equity	361.63	1650.52
	Total	2407.68	10026.47

39. The petitioner has submitted that RoE has been calculated at the rate of 19.610% after grossing up the RoE with MAT rate of 20.961% as per the above Regulations. The petitioner has further submitted that the grossed up RoE is subject



to truing up based on the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up RoE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

40. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/adjustable after completion of income tax assessment of the financial year.

41. The Commission in its order dated 18.3.2011 in Petition No. 28/2010 approved the fees and charges for the period upto 31.3.2009 by considering CRF corresponding to equity on the basis of return on equity at the rate of 14% per annum (post-tax) in accordance with the terms and conditions for determination of tariff applicable during 2004-09. Whereas, during 2009-14, consequent to creation of POSOCO, fees and charges of the assets transferred to POSOCO were allowed as per RLDC Regulations 2009, the assets retained with the CTU are neither covered under the RLDC Regulations nor under the 2009 Tariff Regulations. The tariff regulations applicable for the period 2009-14 provide for recovery of RoE (pre-tax), calculated by grossing up the base rate (normally @ 15.5% per annum) with the Corporate Tax/MAT rate for the year 2008-09 and is to be trued up subsequently with reference to the actual tax rate applicable under the provisions of the relevant Finance Act each year during the tariff period. As already mentioned earlier in this order, PGCIL filed a miscellaneous Petition No. 68/2010 for fixation of



tariff norms for recovery of cost of assets (“Communication System” and “Sub-Load Despatch Centre System”) to be retained or to be installed by the petitioner after formation of POSOCO for the tariff period 2009-14. It was decided, vide order dated 8.12.2011 in Petition No. 68/2010, to continue with the levelised tariff for the existing assets in the absence of any provision in the 2009 Tariff Regulations regarding determination of tariff of communication system and ULDC system of the petitioner. In our opinion, the concept of grossing up linked with the tariff determination for ordinary assets cannot *per se* be applied for calculating fees and charges in accordance with the Capital Recovery Factor (CRF) concept. By considering the grossed-up value of RoE, CRF gets distorted because of factoring of tax component. Therefore, in departure from the provisions for recovery of RoE specified under the tariff regulations presently applicable, post-tax RoE of 15.50% per annum, converted to monthly rates has been considered. As RoE has been considered post-tax, the petitioner shall be entitled to recover income-tax from the respondents in proportion of the fees and charges shared by them in accordance with this order.

Operation & Maintenance Expenses (O&M Expenses)

42. 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 actual expenditure at the time of truing-up. Accordingly, the O&M Expenses are allowed in this order which shall be subject to review at the time of truing-up. The details are as follows:-



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Claimed by petitioner	775.44	801.18	827.78	213.82
Amount allowed	166.31	171.84	177.54	45.86

Interest on working capital

43. The petitioner has claimed O&M Expenses in the case of Central Portion and accordingly O&M Expenses for 1 month, Maintenance spares @15% of O&M Expenses, receivables for two months and SBI Base Rate as on 1.4.2014 i.e. 10.00% Plus 350 bps (13.50%) have been considered as the rate of interest on working capital for the Central Portion only.

44. The necessary computations of interest on working capital (annualized) for Non-Microwave system-Central Portion are as under:-

(₹ in lakh)

Particulars	Central Portion			
	2014-15	2015-16	2016-17	2017-18
Maintenance Spares	24.95	25.78	26.63	27.52
O & M Expenses	13.86	14.32	14.80	15.29
Receivables	165.01	165.98	166.99	168.02
Total	203.82	206.08	208.41	210.82
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	27.52	27.82	28.14	28.46

(₹ in lakh)

Particulars	State Portion			
	2014-15	2015-16	2016-17	2017-18
Maintenance Spares	-	-	-	-
O & M Expenses	-	-	-	-
Receivables	567.19	567.19	567.19	567.19
Total	567.19	567.19	567.19	567.19
Rate of Interest	13.50%	13.50%	13.50%	13.50%
Interest	76.57	76.57	76.57	76.57

Annual Fee and charges

45. The detailed calculations of fee and charges being allowed for the instant asset are attached at Annexure-1 to Annexure-2 of this order and are summarized hereinafter:-



(₹ in lakh)

Particulars	Central Portion			
	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Annual capital recovery charge-Loan	653.90	653.90	653.90	163.47
Annual capital recovery charge-Loan	142.34	142.34	142.34	35.59
Annual capital recovery charge-Total	796.24	796.24	796.24	199.06
O&M expenses	166.31	171.84	177.54	45.86
Interest on working capital	27.52	27.82	28.14	7.12
Total fee and charges	990.07	995.90	1001.92	252.03
Particulars	State Portion			
	2014-15	2015-16	2016-17	2017-18 (pro-rata)
Annual capital recovery charge-Loan	2676.88	2676.88	2676.88	669.22
Annual capital recovery charge-Loan	649.67	649.67	649.67	162.42
Annual capital recovery charge-Total	3326.55	3326.55	3326.55	831.64
O&M expenses	-	-	-	-
Interest on working capital	76.57	76.57	76.57	19.14
Total fee and charges	3403.12	3403.12	3403.12	850.78

46. The Commission is of the view that there is a need to review the Capital Recovery Factor methodology applied while determining fee and charges for Communication system. Accordingly, Commission directs the staff to examine the issue and submit to the Commission for appropriate directions.

Filing fee and Publication Expenses

47. The petitioner has sought reimbursement of fee paid by it for filing the petition and any other expenditure in relation to the filing of petition. 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

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

Service tax

49. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents, if at any time exemption from service tax is withdrawn from the negative list and any additional taxes are to be paid on account of demand from Government/Statutory authorities. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Deferred Tax Liability

50. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized. The deferred tax liability shall be dealt as per Regulations 49 of the 2014 Tariff Regulations, as amended. Accordingly, the petitioner is entitled to recover the deferred tax liability upto 31.3.2009 whenever the same materializes, directly from the beneficiaries or long term transmission customers /DICs.

Sharing of Annual Fees and Charges

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 Fee 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.

53. This order disposes of Petition No. 545/TT/2014.

sd/-
(M.K. Iyer)
Member

sd/-
(A.S. Bakshi)
Member

sd/-
(A.K. Singhal)
Member

sd/-
(Gireesh B. Pradhan)
Chairperson



Annexure-1

(₹ in lakh)

Non-Microwave: Central Portion-Charges-2014-19				
Particulars	2014-15	2015-16	2016-17	2017-18
Opening Gross Capital Cost	7763.61	7763.61	7763.61	7763.61
Opening Gross Notional Loan	6928.72	6928.72	6928.72	6928.72
Opening Gross Equity	834.89	834.89	834.89	834.89
Recovered Gross Capital Cost (As on 1st April)	5355.94	6062.04	6797.79	7566.08
Recovered Gross Notional Loan	4882.67	5496.08	6123.70	6765.87
Recovered Gross Equity	473.27	565.96	674.08	800.21
Opn.Net Capital Cost	2407.68	1701.58	965.83	197.54
Opn. Net Notional Loan	2046.05	1432.64	805.02	162.85
Opn. Net Equity	361.63	268.94	160.81	34.69
Recovered Capital Cost (During the Year)	706.10	735.75	768.29	197.54
Recovered Notional Loan	613.41	627.62	642.16	162.85
Recovered Equity	92.69	108.12	126.13	34.69
Cl. Net Capital Cost	1701.58	965.83	197.54	0.00
Cl. Net Notional Loan	1432.64	805.02	162.85	0.00
Cl. Net Equity	268.94	160.81	34.69	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 (Capital to be recovered up to 31.7.2017)	3.25	2.25	1.25	0.25
Months	39.00	27.00	15.00	3.00
Weighted Average Rate of Interest p.a.	2.2926%	2.2926%	2.2926%	2.2926%
Weighted Average Rate of Interest p.m.	0.1911%	0.1911%	0.1911%	0.1911%
Monthly Recovery Factors-Loan	0.026633	0.038036	0.067690	0.334608
Monthly Capital Recovery Charge-Loan	54.49	54.49	54.49	54.49
Annual Capital Recovery Charge-Loan	653.90	653.90	653.90	653.90
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	0.032801	0.044106	0.073762	0.341981
Monthly Capital Recovery Charge-Equity	11.86	11.86	11.86	11.86
Annual Capital Recovery Charge-Equity	142.34	142.34	142.34	142.34
Monthly Capital Recovery Charge-Total	66.35	66.35	66.35	66.35
Annual Capital Recovery Charge-Total	796.24	796.24	796.24	796.24
Fee & Charges (2014-19) (Annualised)				
Particulars	2014-15	2015-16	2016-17	2017-18
Annual Capital Recovery Charge- Loan	653.90	653.90	653.90	653.90
Annual Capital Recovery Charge- Equity	142.34	142.34	142.34	142.34
Annual Capital Recovery Charge-Total	796.24	796.24	796.24	796.24
O&M Expenses (Escalated at the basis of 3.32% p.a.)	166.31	171.84	177.54	183.44



Interest on Working Capital	27.52	27.82	28.14	28.46
Total Fee & Charges (Annualized)	990.07	995.90	1001.92	1008.14
Interest on Working Capital (Annualised)				
Particular	2014-15	2015-16	2016-17	2017-18
Maintenance Spares (15% of O&M)	24.95	25.78	26.63	27.52
O&M Expenses (1 Month)	13.86	14.32	14.80	15.29
Receivables (2 months)	165.01	165.98	166.99	168.02
Total	203.82	206.08	208.41	210.82
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	27.52	27.82	28.14	28.46
Allowable Fee & Charges-2014-19				
Particulars	2014-15	2015-16	2016-17	2017-18 (Pro-rata)
Annual Capital Recovery Charge- Loan	653.90	653.90	653.90	163.47
Annual Capital Recovery Charge- Equity	142.34	142.34	142.34	35.59
Annual Capital Recovery Charge- Total	796.24	796.24	796.24	199.06
O&M Expenses	166.31	171.84	177.54	45.86
Interest on Working Capital	27.52	27.82	28.14	7.12
Total Fee & Charges (Applicable)	990.07	995.90	1001.92	252.03



Annexure-2

(₹ in lakh)

Non-Microwave: State Portion-Charges-2014-19				
Particulars	2014-15	2015-16	2016-17	2017-18
Opening Gross Capital Cost	31861.70	31861.70	31861.70	31861.70
Opening Gross Notional Loan	28067.08	28067.08	28067.08	28067.08
Opening Gross Equity	3794.62	3794.62	3794.62	3794.62
Recovered Gross Capital Cost (As on 1st April)	21835.23	24769.42	27832.22	31036.72
Recovered Gross Notional Loan	19691.13	22202.26	24771.57	27400.41
Recovered Gross Equity	2144.10	2567.15	3060.65	3636.31
Opn.Net Capital Cost	10026.47	7092.28	4029.48	824.98
Opn. Net Notional Loan	8375.95	5864.82	3295.51	666.67
Opn. Net Equity	1650.52	1227.47	733.97	158.31
Recovered Capital Cost (During the Year)	2934.19	3062.80	3204.50	824.98
Recovered Notional Loan	2511.13	2569.31	2628.84	666.67
Recovered Equity	423.06	493.50	575.66	158.31
Cl. Net Capital Cost	7092.28	4029.48	824.98	0.00
Cl. Net Notional Loan	5864.82	3295.51	666.67	0.00
Cl. Net Equity	1227.47	733.97	158.31	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 (Capital to be recovered up to 31.7.2017)	3.25	2.25	1.25	0.25
Months	39.00	27.00	15.00	3.00
Weighted Average Rate of Interest p.a.	2.2926%	2.2926%	2.2926%	2.2926%
Weighted Average Rate of Interest p.m.	0.1911%	0.1911%	0.1911%	0.1911%
Monthly Recovery Factors-Loan	0.026633	0.038036	0.067690	0.334608
Monthly Capital Recovery Charge-Loan	223.07	223.07	223.07	223.07
Annual Capital Recovery Charge-Loan	2676.88	2676.88	2676.88	2676.88
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	0.032801	0.044106	0.073762	0.341981
Monthly Capital Recovery Charge-Equity	54.14	54.14	54.14	54.14
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	649.67
Monthly Capital Recovery Charge-Total	277.21	277.21	277.21	277.21
Annual Capital Recovery Charge-Total	3326.55	3326.55	3326.55	3326.55
Fee & Charges (2014-19) (Annualised)				
Particulars	2014-15	2015-16	2016-17	2017-18
Annual Capital Recovery Charge-Loan	2676.88	2676.88	2676.88	2676.88
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	649.67
Annual Capital Recovery Charge-Total	3326.55	3326.55	3326.55	3326.55



O&M Expenses (Escalated at the basis of 3.32% p.a.)	0.00	0.00	0.00	0.00
Interest on Working Capital	76.57	76.57	76.57	76.57
Total Fee & Charges (Annualized)	3403.12	3403.12	3403.12	3403.12
Interest on Working Capital (Annualised)				
Particular	2014-15	2015-16	2016-17	2017-18
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)	567.19	567.19	567.19	567.19
Total	567.19	567.19	567.19	567.19
Rate of Interest on Working Capital	13.50%	13.50%	13.50%	13.50%
Total Interest on Working Capital (Annualized)	76.57	76.57	76.57	76.57
Allowable Fee & Charges-2014-19				
Particulars	2014-15	2015-16	2016-17	2017-18 (Pro-rata)
Annual Capital Recovery Charge-Loan	2676.88	2676.88	2676.88	669.22
Annual Capital Recovery Charge-Equity	649.67	649.67	649.67	162.42
Annual Capital Recovery Charge-Total	3326.55	3326.55	3326.55	831.64
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	76.57	76.57	76.57	19.14
Total Fee & Charges (Applicable)	3403.12	3403.12	3403.12	850.78



Annexure-3

(₹ in lakh)

Wt. Average Rate of Interest (for 2009-14)						
Loan	2009-10					
	Opening (Net O/S as on 1.4.2009)	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	0.00	0.00	13.64%	0.00	
Bond IX	1046.80	785.10	915.95	12.25%	112.20	
Bond XII	49.33	43.17	46.25	9.70%	4.49	
Bond XIII-II	0.00	0.00	0.00	7.85%	0.00	
Bond XVIII	116.10	106.43	111.27	8.15%	9.07	
ICICI	1857.60	1393.20	1625.40	7.32%	118.98	
PNB I	214.80	161.10	187.95	8.95%	16.82	
PNB II	341.83	293.00	317.42	8.89%	28.22	
OBC	284.67	244.00	264.34	9.60%	25.38	
Corporation Bank	121.05	94.15	107.60	10.60%	11.41	
BOI(FC)	4170.32	3872.44	4021.38	2.77%	111.39	
IBRD-I	3193.42	2571.51	2882.47	8.41%	242.42	
IBRD-II	3583.71	3388.54	3486.13	2.54%	88.55	
EIB-Tr. I	603.54	497.24	550.39	7.43%	40.89	
EIB-Tr. II	1292.09	1063.29	1177.69	7.20%	84.79	
EIB-Tr. III	2492.63	2050.97	2271.80	7.19%	163.34	
EIB-Tr. IV	1075.18	882.22	978.70	6.56%	64.20	
EIB-Tr. V	1744.85	1431.84	1588.35	6.59%	104.67	
EIB-Tr. VI	327.08	268.14	297.61	6.33%	18.84	
Total Loan	22515.00	19146.34	20830.67		1245.66	5.9799%
Loan	2010-11					
	Opening	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	0.00	0.00	13.64%	0.00	
Bond IX	785.10	523.40	654.25	12.25%	80.15	
Bond XII	43.17	37.00	40.09	9.70%	3.89	
Bond XIII-II	0.00	0.00	0.00	7.85%	0.00	
Bond XVIII	106.43	96.75	101.59	8.15%	8.28	
ICICI	1393.20	928.80	1161.00	7.32%	84.99	
PNB I	161.10	107.40	134.25	9.72%	13.05	
PNB II	293.00	244.17	268.59	9.65%	25.92	
OBC	244.00	203.23	223.62	10.22%	22.85	
Corporation Bank	94.15	67.25	80.70	10.57%	8.53	
BOI(FC)	3872.44	3574.56	3723.50	2.17%	80.80	
IBRD-I	2571.51	1902.55	2237.03	8.75%	195.74	
IBRD-II	3388.54	3180.81	3284.68	1.98%	65.04	
EIB-Tr. I	497.24	384.29	440.77	7.43%	32.75	
EIB-Tr. II	1063.29	820.41	941.85	7.20%	67.81	
EIB-Tr. III	2050.97	1582.65	1816.81	7.19%	130.63	



EIB-Tr. IV	882.22	678.91	780.57	6.56%	51.21	
EIB-Tr. V	1431.84	1101.91	1266.88	6.59%	83.49	
EIB-Tr. VI	268.14	206.07	237.11	6.33%	15.01	
Total Loan	19146.34	15640.16	17393.25		970.12	5.5776%
Loan	2011-12					
	Opening	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	0.00	0.00	13.64%	0.00	
Bond IX	523.40	261.70	392.55	12.25%	48.09	
Bond XII	37.00	30.83	33.92	9.70%	3.29	
Bond XIII-II	0.00	0.00	0.00	7.85%	0.00	
Bond XVIII	96.75	87.08	91.92	8.15%	7.49	
ICICI	928.80	464.40	696.60	7.32%	50.99	
PNB I	107.40	53.70	80.55	11.86%	9.55	
PNB II	244.17	195.33	219.75	11.80%	25.93	
OBC	203.23	162.67	182.95	12.32%	22.54	
Corporation Bank	67.25	40.35	53.80	12.55%	6.75	
BOI(FC)	3574.56	3276.68	3425.62	2.11%	72.28	
IBRD-I	1902.55	1183.05	1542.80	8.95%	138.08	
IBRD-II	3180.81	2959.68	3070.25	1.94%	59.56	
EIB-Tr. I	384.29	264.06	324.18	7.43%	24.09	
EIB-Tr. II	820.41	562.91	691.66	7.20%	49.80	
EIB-Tr. III	1582.65	1086.11	1334.38	7.19%	95.94	
EIB-Tr. IV	678.91	464.56	571.74	6.56%	37.51	
EIB-Tr. V	1101.91	754.00	927.96	6.59%	61.15	
EIB-Tr. VI	206.07	140.80	173.44	6.33%	10.98	
Total Loan	15640.16	11987.91	13814.04		724.02	5.2412%
Loan	2012-13					
	Opening	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	0.00	0.00	13.64%	0.00	
Bond IX	261.70	0.00	130.85	12.25%	16.03	
Bond XII	30.83	24.67	27.75	9.70%	2.69	
Bond XIII-II	0.00	0.00	0.00	7.85%	0.00	
Bond XVIII	87.08	77.40	82.24	8.15%	6.70	
ICICI	464.40	0.00	232.20	7.32%	17.00	
PNB I	53.70	0.00	26.85	11.90%	3.20	
PNB II	195.33	146.50	170.92	11.84%	20.24	
OBC	162.67	122.00	142.34	12.37%	17.61	
Corporation Bank	40.35	13.45	26.90	13.00%	3.50	
BOI(FC)	3276.68	2978.80	3127.74	2.28%	71.31	
IBRD-I	1183.05	409.01	796.03	8.97%	71.40	
IBRD-II	2959.68	2724.25	2841.97	2.10%	59.68	
EIB-Tr. I	264.06	136.30	200.18	7.43%	14.87	
EIB-Tr. II	562.91	289.71	426.31	7.20%	30.69	
EIB-Tr. III	1086.11	558.73	822.42	7.19%	59.13	



EIB-Tr. IV	464.56	238.49	351.53	6.56%	23.06	
EIB-Tr. V	754.00	387.05	570.53	6.59%	37.60	
EIB-Tr. VI	140.80	72.13	106.47	6.33%	6.74	
Total Loan	11987.91	8178.49	10083.20		461.45	4.5764%
Loan	2013-14					
	Opening	Closing	Average	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	0.00	0.00	13.64%	0.00	
Bond IX	0.00	0.00	0.00	12.25%	0.00	
Bond XII	24.67	18.50	21.59	9.70%	2.09	
Bond XIII-II	0.00	0.00	0.00	7.85%	0.00	
Bond XVIII	77.40	67.73	72.57	8.15%	5.91	
ICICI	0.00	0.00	0.00	7.32%	0.00	
PNB I	0.00	0.00	0.00	0.00%	0.00	
PNB II	146.50	97.67	122.09	11.60%	14.16	
OBC	122.00	81.33	101.67	12.35%	12.56	
Corporation Bank	13.45	0.00	6.73	13.00%	0.87	
BOI(FC)	2978.80	2680.92	2829.86	2.02%	57.16	
IBRD-I	409.01	0.00	204.51	8.68%	17.75	
IBRD-II	2724.25	2473.67	2598.96	1.82%	47.30	
EIB-Tr. I	136.30	0.00	68.15	7.43%	5.06	
EIB-Tr. II	289.71	0.00	144.86	7.20%	10.43	
EIB-Tr. III	558.73	0.00	279.37	7.19%	20.09	
EIB-Tr. IV	238.49	0.00	119.25	6.56%	7.82	
EIB-Tr. V	387.05	0.00	193.53	6.59%	12.75	
EIB-Tr. VI	72.13	0.00	36.07	6.33%	2.28	
Total Loan	8178.49	5419.82	6799.16		216.25	3.1806%



(₹ in lakh)

Wt. Average Rate of Interest (for 2014-19)				
Loan	2014-19			
	Opening (Net O/S as on 1.4.2014)	Rate of interest	Interest	Weighted Average Rate of Interest
Bond VII	0.00	13.64%	0.00	
Bond IX	0.00	12.25%	0.00	
Bond XII	18.50	9.70%	1.79	
Bond XIII-II	0.00	7.85%	0.00	
Bond XVIII	67.73	8.15%	5.52	
ICICI	0.00	7.32%	0.00	
PNB I	0.00	0.00%	0.00	
PNB II	97.67	11.60%	11.33	
OBC	81.33	12.35%	10.04	
Corporation Bank	0.00	13.00%	0.00	
BOI(FC)	2680.92	1.95%	52.28	
IBRD-I	0.00	8.68%	0.00	
IBRD-II	2473.67	1.75%	43.29	
EIB-Tr. I	0.00	7.43%	0.00	
EIB-Tr. II	0.00	7.20%	0.00	
EIB-Tr. III	0.00	7.19%	0.00	
EIB-Tr. IV	0.00	6.56%	0.00	
EIB-Tr. V	0.00	6.59%	0.00	
EIB-Tr. VI	0.00	6.33%	0.00	
Total Loan	5419.82		124.26	2.292616%

