

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 269/2010**

**Coram: Dr. Pramod Deo, Chairperson  
Shri S. Jayaraman, Member  
Shri V.S. Verma, Member  
Shri M. Deena Dayalan, Member**

**Date of Hearing: 23.6.2011**

**Date of Order: 16.9.2011**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 for determination of transmission tariff from 01.04.2010 to 31.03.2014 for combined assets of 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee Sub-station (DOCO-01.04.2009) and 315 MVA 400/220 kV ICT-II along with associated bays at Roorkee Sub-station (DOCO-01.04.2010) under System Strengthening Scheme in Roorkee in Northern Region for tariff block 2009-14 period.

**And**

**In the matter of:**

Power Grid Corporation of India Limited, Gurgaon

.....**Petitioner**

**Vs**

1. Uttarakhand Power Corporation Ltd., Dehradun

.....**Respondent**

**The following were present:**

1. Shri S.S.Raju, PGCIL
2. Shri J. Mazumder, PGCIL
3. Shri Rajeev Gupta, PGCIL
4. Shri. M.M. Mondal, PGCIL
5. Shri A.M. Pagvi, PGCIL
6. Shri Mukesh Khanna, PGCIL



## ORDER

This petition has been filed seeking approval for determination of transmission tariff for the combined assets of 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee Sub-station (date of commercial operation 1.04.2009) and 315 MVA 400/220 kV ICT-II along with associated bays at Roorkee Sub-station (date of commercial operation 01.04.2010) under System Strengthening Scheme in Roorkee in Northern Region for tariff block 2009-14 period based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 (hereinafter referred to as "the 2009 regulations"). The petitioner has sought the following additional reliefs:-

- (a) Allow grossing up of base rate of return with the applicable tax rate as per the Finance Act for the relevant year and direct settlement of tax liability between the transmission licensee and the beneficiaries/ long term transmission customers on year to year basis;
- (b) Allow the petitioner to recover full depreciation (90% of the Gross Block) of the assets during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of commercial operation. To permit the petitioner to treat the recovery of depreciation after achieving the useful life by an asset ( to be reckoned from the actual date of commercial operation) in accordance;
- (c) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee and publishing of notices in newspapers in terms of Regulation 42 of the 2009 regulations, and other expenditure (if any) in relation to the filing of petition;
- (d) Allow the petitioner to bill and adjust impact on Interest on Loan,



if any due to change in interest rate on account of floating rate of interest applicable during 2009-14 period, if any, from the respondent;

(e) Allow the petitioner to bill and recover service tax on transmission charges separately from the respondents, if at any time exemption from service tax is withdrawn and transmission is notified as a taxable service; and

(f) Allow the petitioner to bill and recover license fee separately from the respondent.

2. The petitioner has sought approval of transmission tariff for 315 MVA 400/220 kV ICT-I along with associated bays at Roorkee Sub-station (hereinafter referred to as Asset I) and 315 MVA 400/220 kV ICT-II along with associated bays at Roorkee Sub-station (hereinafter referred to as Asset II).

3. Transmission charges for Asset I for the period 1.4.2009 to 31.3.2014 was approved by the Commission vide its order dated 1.12.2010 in Petition No. 79/2010. Tariff claimed under present petition for combined Assets I & II will supersede the tariff approved for Asset I by the order dated 1.12.2010 in Petition No.79/2010.

4. The administrative approval and expenditure sanction for the transmission project was accorded by Board of Directors of the petitioner company vide Memorandum dated 26.12.2005 at an estimated cost of ₹ 109.95 crore, which included IDC of ₹ 4.6 crore, based on 3rd quarter, 2005 price level.



5. Actual date of commercial operation of Asset I and Asset II is 01.04.2009 and 01.04.2010, respectively. Notional date of commercial operation of combined Assets I & II is 01.04.2010. Asset I and Asset II are combined together for the purposes of tariff calculation as per the Commission's letter Ref. No. C-7/189(2040/2009-CERC dated 23.10.2009, wherein the procedure for combining of assets for the purpose of tariff determination for 2009-14 is prescribed.

6. The current petition covers determination of tariff based on actual expenditure incurred upto notional date of commercial operation, i.e. 01.04.2010 and additional capitalization projected to be incurred from notional date of commercial operation to 31.03.2011 and during 2011-12 of the combined assets under System Strengthening Scheme in Roorkee Transmission System in Northern Region.

7. The petitioner has claimed the transmission charges are given as under:-

	(₹ in Lakh)			
	2010-11	2011-12	2012-13	2013-14
Depreciation	322.06	335.99	339.44	339.44
Interest on Loan	443.62	430.92	404.00	372.39
Return on equity	383.32	398.68	402.49	402.49
Interest on Working Capital	39.42	40.69	41.29	41.71
O & M Expenses	343.48	363.14	383.88	405.84
<b>Total</b>	<b>1531.90</b>	<b>1569.42</b>	<b>1571.10</b>	<b>1561.81</b>

8. The details submitted by the petitioner in support of its claim for interest on working capital are given overleaf:-

(₹ in Lakh)

	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	51.52	54.47	57.58	60.88
O&M expenses	28.62	30.26	31.99	33.82
Receivables	255.32	261.57	261.85	260.31
<b>Total</b>	<b>335.46</b>	<b>346.30</b>	<b>351.42</b>	<b>355.01</b>
Interest	39.42	40.69	41.29	41.71
Rate of Interest	11.75%	11.75%	11.75%	11.75%

9. 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 respondent, Uttarakhand Power Corporation Ltd. (UPCL) has also not filed any reply to the petition.

### **CAPITAL COST**

10. Proviso to Regulation 7(1) of the 2009 regulations provides as under:-

*“The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (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 fund deployed, - up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.”*

11. The details of apportioned approved cost as on the date of commercial operation and estimated additional capitalization projected to be incurred for the assets covered in the instant petition are given as under:-

(₹ In Lakh)

Asset	Apportioned Approved Cost	Actual Cost incurred as on Actual/Notional DOCO	Projected Expenditure			Total Estimated completion cost
			2009-10	2010-11	2011-12	
<b>Asset I</b>	4047.19	2948.74	954.09	5.00	0.00	3907.83
<b>Asset II</b>	4047.19	3186.22		435.60	145.19	3767.01
<b>TOTAL</b>	<b>8094.38</b>	<b>7089.05</b>		<b>440.60</b>	<b>145.19</b>	<b>7674.84</b>



12. Capital cost as on the date of commercial operation is inclusive of initial spares of ` 39.73 lakh, which is within ceiling limit specified in Regulation 8 of the 2009 regulations.

### **TIME OVER-RUN**

13. As per investment approval, the project is to be commissioned within 30 months from the date of award of sub-station package. The date of award of sub-station package is 1.1.2006 and accordingly the schedule of completion works out to May, 2009, against which the assets covered under this petition were put under commercial operation w.e.f. 01.04.2010. Thus, there has been a time over-run of 12 months.

14. The petitioner has submitted that the time over-run was due to diversion of ICT meant for Roorkee to Bahadurgarh sub-station. The petitioner vide its affidavit dated 9.12.2010 has clarified that only one ICT at Bahadurgarh feeds 225 MW to HVPNL substation for supply of power to Gurgaon. Since the transformer failed on 28.3.2009 there was no spare transformer, the ICT meant for Roorkee was diverted to Bahadurgarh sub-station to meet the emergency requirement of the Northern Regional Transmission System. It has been submitted that the diversion did not affect the grid operation as the connecting SEB lines were synchronized much after the commissioning of the Roorkee ICT.

15. The Commission during the hearing directed the petitioner to submit the policy regarding prioritization of power supply/commissioning of the project.



16. In response, the petitioner has submitted that as a matter of policy, utmost efforts are made by the petitioner for restoration of transmission elements at the earliest possible time so as to make the system available for power flow. In such cases, flow studies are carried out and if found feasible and spare able transformers are available, then decisions are taken for diversion of transformer to restore the affected system. That on the day of failure of Bahadurgarh ICT on 28.3.2009, the second ICT meant for Roorkee sub-station was in transit from manufacturer's works and due to requirement to service load of about 170 MW to Northern Region Beneficiaries, the ICT was diverted to Bahadurgarh and commissioned.

17. It has also been submitted that the first ICT at Roorkee was commissioned and declared under commercial operation on 1.4.2009 and it was kept floating as no downstream 220 kV system was commissioned by SEB. The second ICT at Roorkee was commissioned and put under commercial operation on 1.4.2010 and this ICT was also kept floating for about 8 months as the 220 kV downstream system was commissioned only on 23.11.2010 by SEB. The ICT meant for Roorkee was diverted purely to meet the load of Northern Region beneficiaries, without affecting the interest of Roorkee as one ICT was already in service.

18. It is observed that the diversion of the ICT to Bahadurgarh was done to meet the emergency requirement of the Northern Regional transmission system which did not affect the grid operation as the connecting SEB lines were synchronised much after the commissioning of the second ICT at Roorkee. Therefore, the delay in commissioning of the ICT has been

condoned. Accordingly, no IDC and IEDC have been deducted from the capital cost of the Asset (315 MVA 400/220 kV ICT-II at Roorkee). The combined capital cost of ` 7089.05 lakh has been considered as opening capital for the purpose of tariff calculation.

### **ADDITIONAL CAPITAL EXPENDITURE**

19. As per Regulation 9(1) of the 2009 regulations:-

*“Additional Capitalisation: (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (i) Undischarged liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8 ;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in law;*

*Provided that the details of works included in the original scope of work along with estimates of expenditure, undischarged liabilities and the works deferred for execution shall be submitted along with the application for determination of the tariff.*

*(2) The capital expenditure incurred on the following counts after the cut-off-date, in its discretion, be admitted by the Commission, subject to prudence check:*

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- (ii) Change in law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (iv) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*
- (v) In case of transmission system any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of the transmission system.*

*Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2009.*



- (vi) *In case of gas/ liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations. Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.*
- (vii) *(vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station.*
- (viii) *Any undischarged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.”*

20. Regulation 3(12) of the 2009 regulations provides as under:-

*“cut-off date means 31<sup>st</sup> march of the year closing after 2 years of the year of commercial operation of the project, and in-case of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation”.*

Therefore, cut-off date for the above mentioned assets is 31.03.2013.

21. The details submitted by the petitioner in support of its claim for projected additional capital expenditure for the transmission asset are given hereunder:-

Year	Work/Equipment proposed to be added after COD upto cut-off date/beyond cutoff date	Amount capitalised and proposed to be capitalised	Justification as per purpose
2010-11	Building	56.46	Balance & Retention Payments
	Substation	361.26	
	Free hold land	22.88	
	<b>Subtotal</b>	<b>440.60</b>	
2011-12	Building	18.82	Balance & Retention Payments
	Substation	118.75	
	Free hold land	7.62	
	<b>Subtotal</b>	<b>145.19</b>	
	<b>Total</b>	<b>585.79</b>	

22. The petitioner has claimed the additional capital expenditure of ` 440.60 and ` 585.79 on account of Balance/Retention payments

incurred/proposed to be incurred during 2010-11 and 2011-12, respectively. The additional capital expenditure incurred /proposed is on account of Balance/Retention Payments and it falls within the cut-off date, i.e. 31.3.2013 and hence it is allowed.

### **DEBT- EQUITY RATIO**

23. Regulation 12 of the 2009 regulations provides that,-

(1) *For a project declared under commercial operation on or after 1.4.2009, 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 where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:*

*Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.*

(2) XXX”

24. The details of opening Debt-Equity considered for the purpose of tariff calculation is as follows:-

	Approved		Cost as on DOCO	
	Amount ( ` Lakh)	%	Amount ( ` in Lakh)	%
Debt	5666.06	70.00	4962.36	70.00
Equity	2428.32	30.00	2126.69	30.00
<b>Total</b>	<b>8094.38</b>	<b>100.00</b>	<b>7089.05</b>	<b>100.00</b>

25. The details of Debt-Equity as on 31.03.2014 is as follows:-

	As on 31.03.2014	
	Amount ( ` Lakh)	%
Debt	5372.42	70.00
Equity	2302.42	30.00
<b>Total</b>	<b>7674.84</b>	<b>100.00</b>

26. The details of additional capital expenditure are as follows:-

	Normative (Projected)	
	Add Cap for 2010-11	
	` in lakhs	%
Debt	308.42	70.00
Equity	132.18	30.00



<b>Total</b>	<b>440.60</b>	<b>100.00</b>
	<b>Add cap for 2011-12</b>	
Debt	101.63	70.00
Equity	43.56	30.00
<b>Total</b>	<b>145.19</b>	<b>100.00</b>

## **RETURN ON EQUITY**

27. Regulation 15 of the 2009 regulations, as amended vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 provides as under:-

*“15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.*

*(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per clause (3) of this regulation:*

*Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:*

*Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.*

*(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.*

*(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:*

*Rate of pre-tax return on equity = Base rate / (1-t)*

*Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.*

*(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge 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 without making any application before the Commission:*

*Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”*

28. The following amount of equity has been considered for calculation of return of equity:-

(` In lakh)

Description	Equity on DOCO/ Notional DOCO	Notional equity due to ACE for the period 2010-11	Total equity considered for tariff calculations for the period 2010-11*	Notional equity due to ACE for the period 2011-12	Total equity considered for tariff calculations for the period 2011-12*	Notional equity due to ACE for the period 2012-14	Total equity considered for tariff calculations for the period 2012-14
Combine Assets 1 & 2	2126.69	132.18	2192.78	43.56	2280.65	-	2302.42

29. Return on equity as admissible has been calculated as under:-

(` in lakh)

	2010-11	2011-12	2012-13	2013-14
Opening Equity	2126.69	2258.87	2302.42	2302.42
Addition due to Additional Capitalisation	132.18	43.56	0.00	0.00
Closing Equity	2258.87	2302.42	2302.42	2302.42
Average Equity	2192.78	2280.65	2302.42	2302.42
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%	17.481%
<b>Return on Equity (Pre-tax)</b>	<b>383.32</b>	<b>398.68</b>	<b>402.49</b>	<b>402.49</b>

### INTEREST ON LOAN

30. Regulation 16 of the 2009 regulations provides that-

*"16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.*

*(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.*

*(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:*

*(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.*



*(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*

*(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

*(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*

*(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

*Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."*

31. The interest on loan has been worked out as detailed below:-

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition.

(b) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period.

(c) Moratorium period availed by the transmission licensee, the repayment of the loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.



(d) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

32. The methodology followed for the calculation of weighted average Rate of Interest in case of floating interest loans in Petition 132/2010 has been adopted in the instant petition. Accordingly, the interest on loan has been calculated on the basis of rate prevailing as on the date of commercial operation, i.e. 1.04.2009. Any change in rate of interest subsequent to the date of commercial will be considered at the time of truing up.

33. As mentioned in Para 10 above, tariff for the Asset-1 is to be allowed for a period of twelve months from April 2009 to March 2010, repayment of normative loan i.e. ₹ 151.60 lakh for Asset-1 for the period from April 2009 to March 2010 has been considered as cumulative repayment of normative loan for Combined Asset-1 & 2 as on the notional date of commercial operation i.e. 01.04.2010.

34. The detailed calculations in support of the weighted revised average rate of interest are contained in the Annexure attached to this order. Based on the above, the year-wise details of interest worked out are given overleaf:-



(₹ in lakh)

Details of loan	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	4962.36	5270.78	5372.42	5372.42
Cumulative Repayment up to Previous Year	151.60	473.66	809.66	1149.10
Net Loan-Opening	4810.76	4797.12	4562.76	4223.32
Addition due to Additional Capitalisation	308.42	101.63	0.00	0.00
Repayment during the year	322.06	335.99	339.44	339.44
Net Loan-Closing	4797.12	4562.76	4223.32	3883.88
Average Loan	4803.94	4679.94	4393.04	4053.60
Weighted Average Rate of Interest on Loan	9.2344%	9.2078%	9.1964%	9.1866%
<b>Interest</b>	<b>443.61</b>	<b>430.92</b>	<b>404.00</b>	<b>372.39</b>

## **DEPRECIATION**

35. Regulation 17 (4) of the 2009 regulations provides for computation of depreciation in the following manner:-

*“Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:*

*Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the asset”.*

36. The notional date of commercial operation of the combined assets is 01.04.2010 and accordingly will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 regulations.

37. Depreciation of Asset-1 i.e. ` 151.60 lakh for the period from April 2009 to March 2010 has been considered as cumulative depreciation for the Combined Asset-1 & 2. Accordingly, annual depreciation has been worked out as given overleaf:-



(` in lakh)

	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	7089.05	7529.65	7674.84	7674.84
Addition during 2009-14 due to Projected Additional Capitalisation	440.60	145.19	0.00	0.00
Closing Gross Block	7529.65	7674.84	7674.84	7674.84
Average Gross Block	7309.35	7602.25	7674.84	7674.84
Rate of Depreciation	4.4062%	4.4196%	4.4228%	4.4228%
Depreciable Value	5768.29	6018.17	6080.08	6080.08
Remaining Depreciable Value	5616.69	5544.50	5270.42	4930.98
Depreciation	322.06	335.99	339.44	339.44
Cumulative Depreciation/ Advance against Depreciation	473.66	809.66	1149.10	1488.54

### **OPERATION & MAINTENANCE EXPENSES**

38. Clause (g) of regulation 19 of the 2009 regulations prescribes the norms for operation and maintenance expenses based on the type of sub-station and line. Norms prescribed in respect of the elements covered in the instant petition are as under:-

Name of Elements	2009-10	2010-11	2011-12	2012-13	2013-14
400kV, bay (` lakh/bay)bay	52.40	55.40	58.57	61.92	65.46
400kV, bay (` lakh/bay)	36.68	38.78	41.00	43.34	45.82

39. Based on the above norms, the petitioner has calculated the following operation and maintenance expenses which are allowed:-

Name of Elements	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
2 nos. 400 kV, bays	Nil	110.80	117.14	123.84	130.92
6 nos. 220 kV, bays	Nil	232.682	246.00	260.04	274.92
<b>Total</b>	<b>Nil</b>	<b>343.48</b>	<b>363.14</b>	<b>383.88</b>	<b>405.84</b>

40. The petitioner has submitted that O & M expenditure for the year 2009-14 had been arrived at on the basis of normalized actual O & M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been



considered while calculating the O & M charges for the tariff period 2009-14. The petitioner has further submitted that it reserves the right to approach the Commission for suitable revision in the norms for O & M expenditure in case the impact of wage hike with effect from 1.1.2007 is more than 50%. The petitioner has further submitted that in O & M norms for the period 2009-14, the cost associated with license fees had not been captured and therefore licence fee be allowed to be recovered separately from the respondents.

41. We observe that these issues have been raised by the petitioner in other petitions also. A view is yet to be taken by the Commission on reimbursement of the cost of wage hike and reimbursement of licence fees. The decision as and when taken will be applicable to the present case also.

#### **INTEREST ON WORKING CAPITAL**

42. As per the 2009 regulations the components of the working capital and the interest thereon are discussed hereunder:-

**(i) Receivables:** As per Regulation 18(1) (c) (i) of the 2009 regulations, receivables will be equivalent to two months' of fixed cost. The petitioner has claimed the receivables on the basis of 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

**(ii) Maintenance spares:** Regulation 18(1)(c)(ii) of the 2009 regulations provides for maintenance spares @ 15% per annum of the O & M expenses from 1.4.2009. The value of maintenance spares has accordingly been worked out.

**(iii) O & M expenses:** Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses 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** As per Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 dated 21.06.2010, for the Assets commissioned before 30.06.2010, SBI PLR rate i.e. 11.75% as on 1.4.2010 is considered as the rate of interest on working capital.

43. Interest on working capital is worked out as under:-

	( ₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	51.52	54.47	57.58	60.88
O & M expenses	28.62	30.26	31.99	33.82
Receivables	255.32	261.57	261.85	260.31
<b>Total</b>	<b>335.46</b>	<b>346.30</b>	<b>351.42</b>	<b>355.01</b>
Interest	39.42	40.69	41.29	41.71

### **TRANSMISSION CHARGES**

44. The transmission charges being allowed for the transmission asset are summarised hereunder:-

	( ₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Depreciation	322.06	335.99	339.44	339.44
Interest on Loan	443.61	430.92	404.00	372.39
Return on Equity	383.32	398.68	402.49	402.49
Interest on Working Capital	39.42	40.69	41.29	41.71
O & M Expenses	343.48	363.14	383.88	405.84
<b>Total</b>	<b>1531.89</b>	<b>1569.42</b>	<b>1571.10</b>	<b>1561.87</b>

### **APPLICATION FEE AND THE PUBLICATION EXPENSES**

45. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. In accordance with our decision in order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee from the beneficiaries.

46. Accordingly, expenses incurred by the petitioner on application filing fees and publication of notices in connection with the present petition shall be directly recovered from the beneficiaries on pro rata basis.

### **LICENCE FEE**

47. The petitioner has prayed that it may be allowed to bill and recover licensee fee separately from the respondents. In this regard, it is clarified that the matter is engaging the attention of the Commission. Any decision on the issue as and when taken shall apply to this case well.

### **SERVICE TAX**

48. The petitioner has made a specific 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 and transmission of power is notified as a taxable service. This prayer of the petitioner is premature. If such a contingency, as foreseen by the petitioner arises, the issue will be decided in accordance with law.

49. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shared by the beneficiaries in

accordance with Regulation 33 of the 2009 regulations upto 30.6.2011. With effect from 1.7.2011, the billing, collection and disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses Regulations, 2010) and the Removal of Difficulties orders issued thereunder.

50. This order disposes of Petition No. 269/2010.

Sd/-	Sd/-	Sd/-	Sd/-
<b>(M.DEENA DAYALAN)</b> <b>MEMBER</b>	<b>(V.S.VERMA)</b> <b>MEMBER</b>	<b>(S.JAYARAMAN)</b> <b>MEMBER</b>	<b>(Dr. PRAMOD DEO)</b> <b>CHAIRPERSON</b>



## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

(` in lakh)

	Details of Loan	2010-11	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond XXVII</b>				
	Gross loan opening	700.00	700.00	700.00	700.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	58.33	116.67
	Net Loan-Opening	700.00	700.00	641.67	583.33
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	58.33	58.33	58.33
	Net Loan-Closing	700.00	641.67	583.33	525.00
	Average Loan	700.00	670.83	612.50	554.17
	Rate of Interest	9.47%	9.47%	9.47%	9.47%
	Interest	66.29	63.53	58.00	52.48
	Rep Schedule	12 Annual Instalment from 31.03.2012			
<b>2</b>	<b>Bond XXVIII</b>				
	Gross loan opening	942.00	942.00	942.00	942.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	78.50
	Net Loan-Opening	942.00	942.00	942.00	863.50
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	78.50	78.50
	Net Loan-Closing	942.00	942.00	863.50	785.00
	Average Loan	942.00	942.00	902.75	824.25
	Rate of Interest	9.33%	9.33%	9.33%	9.33%
	Interest	87.89	87.89	84.23	76.90
	Rep Schedule	12 Annual Instalment from 15.12.2012			
<b>3</b>	<b>Bond XXIX</b>				
	Gross loan opening	977.00	977.00	977.00	977.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	81.42
	Net Loan-Opening	977.00	977.00	977.00	895.58
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	81.42	81.42
	Net Loan-Closing	977.00	977.00	895.58	814.17
	Average Loan	977.00	977.00	936.29	854.88
	Rate of Interest	9.20%	9.20%	9.20%	9.20%
	Interest	89.88	89.88	86.14	78.65
	Rep Schedule	12 Annual Instalment from 12.03.2013			
<b>4</b>	<b>Bond XXIV</b>				

	Gross loan opening	<b>419.00</b>	<b>419.00</b>	<b>419.00</b>	<b>419.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>34.92</b>	<b>69.83</b>	<b>104.75</b>
	Net Loan-Opening	419.00	384.08	349.17	314.25
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	34.92	34.92	34.92	34.92
	Net Loan-Closing	384.08	349.17	314.25	279.33
	Average Loan	401.54	366.63	331.71	296.79
	Rate of Interest	9.95%	9.95%	9.95%	9.95%
	Interest	39.95	36.48	33.00	29.53
	Rep Schedule	12 Annual Instalment from 26.03.2011			
<b>5</b>	<b>Bond XXX</b>				
	Gross loan opening	<b>986.00</b>	<b>986.00</b>	<b>986.00</b>	<b>986.00</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	986.00	986.00	986.00	986.00
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	82.17
	Net Loan-Closing	986.00	986.00	986.00	903.83
	Average Loan	986.00	986.00	986.00	944.92
	Rate of Interest	8.80%	8.80%	8.80%	8.80%
	Interest	86.77	86.77	86.77	83.15
	Rep Schedule	12 Annual instalments from 29.09.2013			
<b>6</b>	<b>Bond XXXIII</b>				
	Gross loan opening	<b>0.00</b>	<b>270.50</b>	<b>270.50</b>	<b>270.50</b>
	Cumulative Repayment upto DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	0.00	270.50	270.50	270.50
	Additions during the year	270.50	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00	0.00
	Net Loan-Closing	270.50	270.50	270.50	270.50
	Average Loan	135.25	270.50	270.50	270.50
	Rate of Interest	8.64%	8.64%	8.64%	8.64%
	Interest	11.69	23.37	23.37	23.37
	Rep Schedule	12 annual installments from 08.07.2014			
	<b>Total Loan</b>				
	Gross loan opening	4024.00	4294.50	4294.50	4294.50
	Cumulative Repayment upto DOCO/previous year	0.00	34.92	128.17	381.33
	Net Loan-Opening	4024.00	4259.58	4166.33	3913.17
	Additions during the year	270.50	0.00	0.00	0.00
	Repayment during the year	34.92	93.25	253.17	335.33
	Net Loan-Closing	4259.58	4166.33	3913.17	3577.83
	Average Loan	4141.79	4212.96	4039.75	3745.50
	Rate of Interest	<b>9.2344%</b>	<b>9.2078%</b>	<b>9.1964%</b>	<b>9.1866%</b>
	<b>Interest</b>	382.47	387.92	371.51	344.09

