

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 34/TT/2011**

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

**Date of Hearing: 15.9.2011**

**Date of Order: 14.2.2012**

**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 date of commercial operation to 31.3.2014 for (i) 400 kV D/C Abdullapur- Sonapat T/L along with 400 kV associated bays at Abdullapur and Sonapat sub-station (anticipated DOCO: 1.3.2011) and; (ii) 400 kV 125 MVAR bus reactor with associated bays at Abdullapur (anticipated DOCO: 1.3.2011) under System Strengthening in Northern Region Grid for Karcham- Wangtoo HEP in Northern Region-II for tariff block 2009-14 period

**And**

**In the matter of:**

Power Grid Corporation of India Ltd., Gurgaon

**.....Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitran Nigam Limited, Jaipur
3. Jaipur Vidyut Vitran Nigam Limited, Jaipur
4. Jodhpur Vidyut Vitran Nigam Limited, Jaipur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Jammu
9. Uttar Pradesh Power Corporation Ltd., Lucknow
10. Delhi Transco Limited, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power limited, New Delhi



13. North Delhi Power Limited, New Delhi
14. Chandigarh Administration, Chandigarh
15. Uttarakhand Power Corporation Ltd., Dehradun
16. North Central Railway, Allahabad
17. New Delhi Municipal Council, New Delhi

.....Respondents

**The following were present:**

1. Shri S.S. Raju, PGCIL
2. Shri Rajeev Gupta, PGCIL
3. Shri Padamjit Singh, PSPCL
4. Shri T.P.S. Bawa, PSPCL
5. Shri Yashwardhan Singh, BYPL

**ORDER**

This petition has been filed seeking approval of transmission tariff for (i) 400 kV D/C Abdullapur- Sonapat T/L along with 400 kV associated bays at Abdullapur and Sonapat sub-station (anticipated date of commercial operation: 1.3.2011); and (ii) 400 kV 125 MVAR bus reactor with associated bays at Abdullapur (anticipated date of commercial operation: 1.3.2011) under System Strengthening in Northern Region Grid for Karcham- Wangtoo HEP in Northern Region-II (hereinafter referred to as "transmission asset") for tariff block 2009-14 period from date of commercial operation to 31.3.2014 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "2009 regulations").

2. The assets covered in the petition and dates of their commercial operation are as given overleaf:-



S. No.	Assets	Actual DOCO ( As per submission dated 04.05.2011)	Length ( in Kms.)
	<b>Transmission Line:</b>		
1	400 kV D/C triple conductor, Abdullapur- Sonepat T/Line	01.04.2011	145.5
	<b>Sub-Station/ Bay:</b>		<b>Nos. of bays</b>
	<b>Abdullapur Sub-Station:</b>		
1	400 kV Bus Reactor bay	01.03.2011	1
2	400 kV Sonepat-I, bay	01.04.2011	1
3	400 kV Sonepat-II, bay	01.04.2011	1
	<b>Sonepat Sub-Station:</b>		
1	400 kV Abdullapur-I, bay	01.04.2011	1
2	400 kV Abdullapur-II, bay	01.04.2011	1

3. The administrative approval and expenditure sanctioned to the transmission project was accorded by Board of Directors of POWERGRID vide memorandum dated 11.12.2008 for ₹ 32897 lakh, including IDC of ₹ 2215 lakh (based on 2nd Quarter, 2008 price level).

4. Details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)	
Asset 1	2010-11 (pro-rata)
Depreciation	2.99
Interest on Loan	3.48
Return on equity	3.06
Interest on Working Capital	0.41
O & M Expenses	4.62
<b>Total</b>	<b>14.56</b>

(₹ in lakh)			
Combined Assets 1 & 2	2011-12	2012-13	2013-14
Depreciation	1060.07	1102.48	1115.68
Interest on Loan	1189.93	1143.94	1061.11
Return on equity	1085.43	1128.87	1142.41
Interest on Working Capital	85.55	87.43	87.45
O & M Expenses	394.85	417.42	441.23
<b>Total</b>	<b>3815.83</b>	<b>3880.14</b>	<b>3847.88</b>



5. The details submitted by the petitioner in support of its claim for interest on working capital are as under:-

(₹ in lakh)	
<b>Asset 1</b>	<b>2010-11 (pro-rata)</b>
Maintenance Spares	8.32
O & M expenses	4.62
Receivables	29.12
<b>Total</b>	<b>42.06</b>
Interest	0.41
Rate of Interest	11.75%

(₹ in lakh)			
<b>Combined Assets 1 &amp; 2</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Maintenance Spares	59.23	62.61	66.18
O & M expenses	32.90	34.79	36.77
Receivables	635.97	646.69	641.31
<b>Total</b>	<b>728.10</b>	<b>744.09</b>	<b>744.27</b>
Interest	85.55	87.43	87.45
Rate of Interest	11.75%	11.75%	11.75%

6. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under section 64 of the Electricity Act, 2003. Reply to the petition has been filed by Punjab State Power Corporation Limited (PSPCL), Respondent No. 6, and Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 9. PSPCL has sought information/ clarification regarding actual dates of commercial operation of Abdullapur-Sonepat line and 125 MVAR bus reactor at Abdullahpur and also pointed out the absence of any approval for the assets in the present petition in the minutes of 25th standing committee meeting on power system planning of Northern Region dated 17.7.2008 and the minutes of 10th NRPC meeting held on 29/30.9.2011 on these assets. UPPCL has raised the issue pertaining to additional rate of return on equity, the grossing up of base rate of return on equity with the applicable MAT rates for the relevant year and realization thereof, service tax, licence fee, filing fees, floating rate of interest, etc. PGCIL have filed

rejoinder to the replies filed by PSPCL and UPPCL, wherein it has clarified the issues raised by these respondents.

7. Having heard the representatives of the parties and perused the material on records, we proceed to dispose of the petition. While doing so, we also take care of the submissions of the respondent in its reply and address them in the relevant paragraphs.

### **CAPITAL COST**

8. As regards capital cost, Regulation 7(1) (a) of the 2009 regulations provides that:-

*“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.”*

9. Petitioner, vide affidavit dated 4.5.2011, submitted that the actual date of commercial operation of Asset-1 and Asset-2 is 1.3.2011 and 1.4.2011 respectively. Petitioner has also submitted on affidavit, dated 19.8.2011 the Tariff Forms as per notional date of commercial operation i.e. 1.4.2011 of Combined Assets-1&2. Details of capital cost as on actual date of commercial operation and estimated additional capital expenditure projected to be incurred for the assets covered in this petition are summarized overleaf:-

(₹ in lakh)

Particular	Capital expenditure incurred up to actual DOCO	Projected Additional-Capital expenditure			Total Estimate Completion cost
		2010-11 March'11	2011-12	2012-13	
400 KV 125 MVAR Bus Reactor with associated bays at Abdullapur (hereinafter " <b>Asset-1</b> ")	674.80	7.31	69.65	-	751.75
400 kV D/C Abdullapur –Sonepat T/L along with 400 kV associated bays at Abdullapur & Sonepat Sub-station (hereinafter " <b>Asset-2</b> ")		18816.81	1035.52	500.00	20352.33
<b>Combined Asset-1&amp;2</b>		<b>19498.92</b>	<b>1105.17</b>	<b>500.00</b>	<b>21104.08</b>

Capital cost as on actual date of commercial operation is inclusive of initial spares of ₹ 17.31 lakh pertaining to sub-station for Asset-1 and ₹ 191.96 lakh and ₹ 85.22 lakh pertaining to transmission line and sub-station respectively for Asset-2

10. The petitioner has claimed the capital cost of ₹ 674.80 lakh vide Auditor's certificate dated 21.1.2011 for Asset-1 and ₹ 18816.81 lakh for Asset-2 vide management certificate (vide affidavit dated 19.8.2011). Capital cost of ₹ 674.80 lakh for Asset-1 and ₹ 19399.20 lakh (excluding excess initial spares claimed) for Combined Asset-1&2 has been considered for the purpose of tariff calculation as on the date of commercial operation.

### **TREATMENT OF INITIAL SPARES**

11. The admissible amount of initial spares pertaining to transmission line and sub-station has been determined as per Regulation 8 of 2009 regulations at 0.75 % and 2.50% respectively. Accordingly, excess initial spares of ₹ 50.39 lakh for transmission line and ₹ 49.33 lakh for sub-station has been deducted from the cost of transmission line and sub-station of Combined Assets 1 and 2



as on date of commercial operation as per details given hereunder:-

(₹ in lakh)					
Description	Capital cost as on cut off date	Initial spares claimed	Ceiling limits as per Regulation 8 of 2009 regulations	Initial spares worked out	Excess initial spares claimed
<b>Combined Assets-1&amp;2</b>	(a)	(b)	(c)	$(d)=((a-b)*c)/(100-c)\%$	$(e)=(b)-(d)$
<b>Transmission line</b>	18926.89	191.96	0.75%	141.57	<b>(50.39)</b>
<b>Sub-station (including PLCC)</b>	2177.20	102.53	2.50%	53.20	<b>(49.33)</b>

Further, the ceiling limit of initial spares shall be reviewed as per Regulation 8 of 2009 regulations at the time of truing up.

### **ADDITIONAL CAPITAL EXPENDITURE**

12. As per Regulation 9(1) of 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) XXX
- (iii) XXX
- (iv) XXX
- (v) XXX”

13. As per 2009 regulations,

*“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 31.3.2014.

14. The petitioner has claimed additional capital expenditure of ₹ 7.31 lakh and ₹ 69.65 lakh for the year 2010-11 (date of commercial operation to 31.3.2011) and 2011-12 respectively for Asset-1 and ₹ 1035.52 lakh and ₹ 500.00 lakh for the years 2011-12 and 2012-13 respectively for Asset-2. Additional capital



expenditure claimed falls within the cut-off date. Hence, the same has been considered for the purpose of tariff calculation.

### **DEBT- EQUITY RATIO**

15. 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."*

16. The details of debt-equity ratio of assets considered for the purpose of tariff calculation as on the date of commercial operation is as follows:-

<b>Capital cost as on 1.3.2011 (Asset-1)</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
Debt	472.36	70.00
Equity	202.44	30.00
<b>Total</b>	<b>674.80</b>	<b>100.00</b>
<b>Capital cost as on 1.4.2011 (Combined Assets-1&amp;2)</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
Debt	13579.45	70.00
Equity	5819.75	30.00
<b>Total</b>	<b>19399.20</b>	<b>100.00</b>



17. Details of debt- equity ratio of assets as on 31.3.2014 is as follows:-

<b>Capital cost as on 31.3.2014</b>		
<b>(Combined Assets-1 &amp; 2)</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
Debt	14703.07	70.00
Equity	6301.31	30.00
<b>Total</b>	<b>21004.37</b>	<b>100.00</b>

18. Details of additional capital expenditure claimed by the Petitioner as follows:-

<b>Asset-1</b>		
<b>Additional capital expenditure for 2010-11</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
<b>Normative</b>		
Debt	5.12	70.00
Equity	2.19	30.00
<b>Total</b>	<b>7.31</b>	<b>100.00</b>
<b>Additional capital expenditure for 2011-12</b>		
Debt	48.76	70.00
Equity	20.90	30.00
<b>Total</b>	<b>69.65</b>	<b>100.00</b>
<b>Asset-2</b>		
<b>Additional capital expenditure for 2011-12</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
<b>Normative</b>		
Debt	724.86	70.00
Equity	310.66	30.00
<b>Total</b>	<b>1035.52</b>	<b>100.00</b>
<b>Additional capital expenditure for 2012-13</b>		
	<b>Amount (₹ in lakh)</b>	<b>%</b>
<b>Normative</b>		
Debt	<b>350.00</b>	70.00
Equity	<b>150.00</b>	30.00
<b>Total</b>	<b>500.00</b>	<b>100.00</b>

## **RETURN ON EQUITY**

19. Regulation 15 of the 2009 regulations provides that:-

*"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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations"*

20 The petitioner has mentioned that, as per Appendix II of 2009 regulations, in case of a scheme having combination of the various types of projects, the qualifying time schedule of the activity having maximum time period shall be considered for the scheme as a whole. In line with this, the time line for this project is same as for 400 kV Triple transmission line, i.e., 30 months for plain area from the date of investment approval which is June 2011. The date of commercial operation of 400 kV Abdullapur-Sonepat T/L along with bays at both ends was 1.4.2011 and date of commercial operation of bus reactor at

Abdullapur was 1.3.2011. This being so, the petitioner claims 0.5% additional return on equity for both Asset-1 and Asset-2.

21. UPPCL, in its reply dated 14.7.2011, has submitted that the claim of additional return on equity made by the petitioner is not admissible since all the assets covered under the scheme have not been commissioned and covered in the petition and also because only part of the project is anticipated to be completed.

22. The petitioner in its rejoinder, vide affidavit dated 16.8.2011, to the reply of the respondent UPPCL submitted that assets in the instant petition covers complete scope of the project and have been declared under commercial operation within the qualifying time line.

23. During the hearing of the petition on 15.9.2011, PSPCL, has submitted that Karcham-Wangtoo HEP-Abdullapur transmission line which is being jointly developed by the petitioner with Jaypee Powergrid Limited has not been commissioned. Since, Abdullapur-Sonepat transmission line covered in the present petition cannot be utilized for evacuation of power from the Karcham-Wangtoo HEP without the commissioning of Karcham- Wangtoo HEP-Abdullapur transmission line, the additional return on equity claimed in the petition for early commissioning of this transmission line is not justified.

24. PGCIL, vide its rejoinder dated 16.12.2011, has submitted that in the 25th Standing Committee Meeting (SCM) on Power System Planning of Northern Region it was decided that the 400 kV D/C Abdullapur-Sonepat transmission

line covered under Karcham-Wangtoo scheme has been taken up by PGCIL as system strengthening scheme and that both the lines would have to be preponed in order to shift the lines at Bawana at an early date. Considering the technical requirements and useful purpose of the project, it was therefore decided that the line covered under Karcham-Wangtoo scheme to be constructed by PGCIL as part of a Regional System Strengthening Scheme shall be commissioned from an early date. Thus an additional return of 0.5% is being claimed on account of early commissioning of the assets.

25. It is observed that as per SCM and NRPC meeting, the 400 kV D/C Abdullapur-Sonepat transmission line was agreed to be considered as system strengthening scheme and preponement was also agreed by the constituents. Therefore, the objection of the respondent, PSPCL to the claim of petitioner for additional Return of Equity on the ground that these assets are related to Karcham-Wangtoo HEP, is not reasonable. The qualifying time schedule for 0.5% additional return on equity for the whole project is 30 months from the date of investment approval. The complete project under the scheme has been commissioned before the stipulated completion time of 30 months, and hence the transmission line qualifies for additional return on equity of 0.5%.

26. The additional return on equity of 0.5% however is not being allowed for the extension of the Sub-station. No time line is given for it in the 2009 regulations and the decision for not allowing the additional return on equity has been taken in respect of assets in which only the extension of the Sub-stations are covered.

27. The amount of equity has been considered for calculation of return of equity @ 16% i.e. 15.5% plus 0.5% on the ground that the project is commissioned within the stipulated time period and qualifies for additional return on equity as per 2009 regulations as per details given hereunder:-

(₹ in lakh)

Description	Equity on 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 calculation for the period 2011-12*	Notional equity due to ACE for the period 2012-13	Total equity considered for tariff calculation for the period 2012-13*	Notional equity due to ACE for the period 2013-14	Total equity considered for tariff calculation for the period 2013-14*
Asset-1	202.44	2.19	203.54	-	-	-	-	-	-
Combined Asset-1&2	5819.75	-	-	331.55	5985.53	150.00	6226.31	0.00	6301.31

\* Average equity corresponding to additional capital expenditure has been considered for working out return of equity during these periods. Return on Equity has been calculated as follows- Base rate / (1-t), where Base rate is 16 % and 't' is normal tax rate for the period 2008-09 applicable to PGCIL which is under MAT i.e. 10% + surcharge @ 10% + 3 % Education Cess.

28. In view of the above, the following amount of equity has been considered for calculation of return of equity:-

(₹ in lakh)

Asset-1	2010-11 (pro-rata)
Opening Equity	202.44
Addition due to Additional capital expenditure	2.19
Closing Equity	204.63
Average Equity	203.54
Return on Equity (Base Rate )	16.00%
Tax rate for the year 2008-09 (MAT)	11.33%
Rate of Return on Equity (Pre Tax )	18.044%
<b>Return on Equity (Pre Tax)</b>	<b>3.06</b>



(₹ in lakh)			
<b>Combined Assets-1 and 2</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
Opening Equity	5819.75	6151.31	6301.31
Addition due to additional capital expenditure	331.55	150.00	0.00
Closing equity	6151.31	6301.31	6301.31
Average equity	5985.53	6226.31	6301.31
Return on equity (Base Rate )	16.00%	16.00%	16.00%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of return on equity (Pre Tax )	18.044%	18.044%	18.044%
<b>Return on Equity (Pre Tax)</b>	<b>1080.03</b>	<b>1123.47</b>	<b>1137.01</b>

## **INTEREST ON LOAN**

29. 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.”*

30. In these calculations, interest on loan has been worked out as per details given hereunder:-

(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) 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;

(c) The repayment for the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that period; and

(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.

31. Detailed calculations of the weighted revised average rate of interest have been given in Annexure I and II to this order.

32. Details of the interest on loan worked on the above basis are given as under:-

(₹ in lakh)

Asset-1	2010-11 (pro-rata)
Gross Normative Loan	472.36
Cumulative Repayment upto previous year	0.00
Net Loan-Opening	472.36
Addition due to additional capital expenditure	5.12
Repayment during the year	2.99
Net Loan-Closing	474.49
Average loan	473.43
Weighted average rate of interest on loan	8.8315%
<b>Interest</b>	<b>3.48</b>

(₹ in lakh)

Combined Asset-1&2	2011-12	2012-13	2013-14
Gross Normative Loan	13579.45	14353.07	14703.07
Cumulative repayment upto previous year	2.99	1057.79	2155.01
Net Loan-Opening	13576.46	13295.27	12548.06
Addition due to additional capital expenditure	773.62	350.00	0.00
Repayment during the year	1054.81	1097.22	1110.42
Net Loan-Closing	13295.27	12548.06	11437.64
Average loan	13435.87	12921.66	11992.85
Weighted Average Rate of Interest on Loan	8.8123%	8.8107%	8.8063%
<b>Interest</b>	<b>1184.01</b>	<b>1138.49</b>	<b>1056.12</b>

## **DEPRECIATION**

33. Petitioner has claimed actual depreciation as a component of Annual Fixed Charges. However, Regulation 17 (4) of the 2009 regulations provides as under:-

*"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 31th 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".*

34. Asset in the current petition was put under commercial operation as on 1.3.2011 and 1.4.2011. 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 2009 regulations.



35. Details of the depreciation worked out are as given hereunder:-

(₹ in lakh)	
Asset-1	2010-11 (pro-rata)
Opening Gross Block	674.80
Addition during 2009-14 due to additional capital expenditure	7.31
Closing Gross Block	682.11
Average Gross Block	678.46
Rate of Depreciation	5.2800%
Depreciable Value	610.61
Remaining Depreciable Value	610.61
<b>Depreciation</b>	<b>2.99</b>

(₹ in lakh)			
Combined Assets-1&2	2011-12	2012-13	2013-14
Opening Gross Block	19399.20	20504.37	21004.37
Addition during 2009-14 due to Projected Additional Capitalisation	1105.17	500.00	0.00
Closing Gross Block	20504.37	21004.37	21004.37
Average Gross Block	19951.79	20754.37	21004.37
Rate of Depreciation	5.2868%	5.2867%	5.2866%
Depreciable Value	17956.61	18678.93	18903.93
Remaining Depreciable Value	17953.62	17621.14	16748.92
<b>Depreciation</b>	<b>1054.81</b>	<b>1097.22</b>	<b>1110.42</b>

### **OPERATION & MAINTENANCE EXPENSES**

36. 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:-

(₹ in lakh)					
Element	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C triple conductor, T/Line ( kms.)	0.627	0.663	0.701	0.741	0.783
400 kV bay (bay)	52.40	55.40	58.57	61.92	65.46

37. As per the above mentioned norms the allowable O&M expenses for the assets covered in the petition works out as under:-

(₹ in lakh)

Element (Asset-1)	2009-10	2010-11 (Pro-rata for one month)
1 no., 400 kV bay	Nil	4.62
<b>Total O&amp;M Expenses</b>	<b>Nil</b>	<b>4.62</b>

(₹ in lakh)

Element (Asset-2)	2009-10	2010-11	2011-12	2012-13	2013-14
145.5 kms, 400 kV, D/C, triple conductor T/Line	Nil	Nil	102.00	107.82	113.93
5 nos., 400 kV bays	Nil	Nil	292.85	309.60	327.30
<b>Total O&amp;M Expenses</b>	<b>Nil</b>	<b>Nil</b>	<b>394.85</b>	<b>417.42</b>	<b>441.23</b>

38 The Petitioner has stated that O&M expenditure for 2009-14 tariff block has been arrived on the basis of normalized actual O&M expenses of the petitioner during the year 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking was also considered while calculating the O&M charges for tariff period 2009-14. The petitioner has submitted that it would approach the Commission for suitable revision in the norms for O&M expenditure in case the impact of wage hike w.e.f 1.1.2007 is more than 50%. The petitioner further submitted that on O & M norms for tariff block 2009-14 the cost associated with license fees had been captured and the license fee may be allowed to be recovered from the respondents.

39. The respondents PSPCL and UPPCL submitted that the O&M expenses should be allowed as per existing norms only.

40. In the instant petition O & M expenses is allowed on the basis of existing norms. If any application for revision of norms of O&M expenditure is filed by the petitioner in future, it will be dealt with in accordance with law.

## **INTEREST ON WORKING CAPITAL**

41. As per the 2009 regulations the components of the working capital and the interest thereon are discussed are given as under:-

**(i) Receivables:** As per Regulation 18(1) (c) (i) of the 2009 regulations the receivables will be equivalent to two months of fixed cost. The petitioner has claimed 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 annual 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 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 21.6.2010, SBI Base Rate (7.50%) plus 350 Bps i.e. 11.00 % for Asset-I and SBI Base Rate (8.25%) Plus 350 Bps i.e. 11.75 % have been considered for Combined Assets-1&2 as the rate of interest on working capital.

42. Necessary computations in support of interest on working capital are appended hereunder:

(₹ in lakh)	
Asset-1	2010-11 (Pro-rata for one month)
Maintenance spares	8.32
O & M expenses	4.62
Receivables	29.07
<b>Total</b>	<b>42.01</b>
Interest	0.39

(₹ in lakh)			
Combined Assets-1 & 2	2011-12	2012-13	2013-14
Maintenance Spares	59.23	62.61	66.18
O & M expenses	32.90	34.79	36.77
Receivables	633.15	643.95	638.65
<b>Total</b>	<b>725.29</b>	<b>741.35</b>	<b>741.61</b>
Interest	85.22	87.11	87.14

### TRANSMISSION CHARGES

43. The transmission charges being allowed for the transmission lines is as per details given hereunder:-

(₹ in lakh)	
Asset-I	2010-11 (Pro-rata for one month)
Depreciation	2.99
Interest on Loan	3.48
Return on equity	3.06
Interest on Working Capital	0.39
O & M Expenses	4.62
<b>Total</b>	<b>14.53</b>

(₹ in lakh)			
Combined Asset-I&II	2011-12	2012-13	2013-14
Depreciation	1054.81	1097.22	1110.42
Interest on Loan	1184.01	1138.49	1056.12
Return on equity	1080.03	1123.47	1137.01
Interest on Working Capital	85.22	87.11	87.14
O & M Expenses	394.85	417.42	441.23
<b>Total</b>	<b>3798.92</b>	<b>3863.71</b>	<b>3831.91</b>

## **FILING FEE AND THE PUBLICATION EXPENSES**

44. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. UPPCL has submitted that the filing fee shall be governed as per the Commission's order. In accordance with the Commission's order dated 11.1.2010 in Petition No. 109/2009, the petitioner shall be entitled to recover the filing fee directly from the beneficiaries on *pro-rata* basis. The petitioner shall also be entitled for reimbursement of the publication expenses in connection with the present petition directly from the beneficiary on *pro-rata* basis.

## **LICENCE FEE**

45. The petitioner has submitted that they be allowed to bill and recover the licence fee separately from the Respondent.

46. The respondent, UPPCL has submitted that the petitioner's request for reimbursement for licence fee should be rejected as the payment of license fee is the onus of the petitioner. Under the CERC (Payment of Fees) Regulations, 2008, the deemed licensee is required to pay the licence fee. Moreover, there is no specific provision in the 2009 regulations for recovery of licence fee, from the beneficiaries. It is clarified that the same shall be dealt with in accordance with our order dated 25.10.2011 in Petition No. 21/2011 and 22/2011.

## **SERVICE TAX**

47. The petitioner has made a prayer to be allowed to bill and recover the service tax on transmission charges separately from the respondents if it is subjected to such service tax in future. The respondent, UPPCL objects to

levying of service tax on the beneficiaries as the issue of service tax is pending before Hon'ble Supreme Court. The respondent has submitted that it is premature for the petitioner to move any such claim. We consider the prayer of the petitioner pre-mature and accordingly this prayer is rejected.

### **SHARING OF TRANSMISSION CHARGES**

48. The transmission system was initially conceived for Karcham- Wangtoo HEP, but subsequently, in different meetings of standing committee for power system planning and Northern Regional Power Committee, the constituents of Northern Region agreed to consider it as part of the system strengthening scheme and to pay transmission charges.

49. The transmission charges for the Assets shall be borne 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 the CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010.

50. This order disposes of Petition No.34/2011.

Sd/-

**(M. Deena Dayalan)**  
**Member**

Sd/-

**(V.S. Verma)**  
**Member**

Sd/-

**(S. Jayaraman)**  
**Member**

Sd/-

**(Dr. Pramod Deo)**  
**Chairperson**



## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR ASSET-1

(₹ in lakh)

Details of Loan		2010-11
<b>1</b>	<b>Bond XXIX</b>	
	Gross loan opening	<b>100.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	100.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	100.00
	Average Loan	100.00
	Rate of Interest	9.20%
	Interest	9.20
	Rep Schedule	12 annual installments from 12.03.2013
<b>2</b>	<b>Bond XXXIII</b>	
	Gross loan opening	<b>200.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	200.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	200.00
	Average Loan	200.00
	Rate of Interest	8.64%
	Interest	17.28
	Rep Schedule	12 annual installments from 08.07.2014
<b>3</b>	<b>Bond XXXIV</b>	
	Gross loan opening	<b>172.35</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>
	Net Loan-Opening	172.35
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	172.35
	Average Loan	172.35
	Rate of Interest	8.84%
	Interest	15.24
	Rep Schedule	12 annual installments from 21.10.2014
	<b>Total Loan</b>	
	Gross loan opening	472.35
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	472.35
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	472.35
	Average Loan	472.35
	Rate of Interest	<b>8.8315%</b>
	<b>Interest</b>	41.72

**CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR COMBINED ASSETS-1 & 2**

(₹in lakh)

	<b>Details of Loan</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>
<b>1</b>	<b>Bond XXIX</b>			
	Gross loan opening	<b>1373.00</b>	<b>1373.00</b>	<b>1373.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>114.42</b>
	Net Loan-Opening	1373.00	1373.00	1258.58
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	114.42	114.42
	Net Loan-Closing	1373.00	1258.58	1144.17
	Average Loan	1373.00	1315.79	1201.38
	Rate of Interest	9.20%	9.20%	9.20%
	Interest	126.32	121.05	110.53
	Rep Schedule	12 annual installments from 12.03.2013		
<b>2</b>	<b>Bond XXX</b>			
	Gross loan opening	<b>1920.00</b>	<b>1920.00</b>	<b>1920.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1920.00	1920.00	1920.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	160.00
	Net Loan-Closing	1920.00	1920.00	1760.00
	Average Loan	1920.00	1920.00	1840.00
	Rate of Interest	8.80%	8.80%	8.80%
	Interest	168.96	168.96	161.92
	Rep Schedule	12 Annual installments from 29.09.2013		
<b>3</b>	<b>Bond XXXI</b>			
	Gross loan opening	<b>4086.00</b>	<b>4086.00</b>	<b>4086.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	4086.00	4086.00	4086.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	340.50
	Net Loan-Closing	4086.00	4086.00	3745.50
	Average Loan	4086.00	4086.00	3915.75
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	363.65	363.65	348.50
	Rep Schedule	12 Annual installments from 25.02.2014		
<b>4</b>	<b>Bond XXXIII</b>			
	Gross loan opening	<b>5200.00</b>	<b>5200.00</b>	<b>5200.00</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>





	Net Loan-Opening	5200.00	5200.00	5200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	5200.00	5200.00	5200.00
	Average Loan	5200.00	5200.00	5200.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	449.28	449.28	449.28
	Rep Schedule	12 Annual installments from 08.07.2014.		
<b>5</b>	<b>Bond XXXIV</b>			
	Gross loan opening	<b>1064.35</b>	<b>1064.35</b>	<b>1064.35</b>
	Cumulative Repayment up to DOCO/previous year	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
	Net Loan-Opening	1064.35	1064.35	1064.35
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	1064.35	1064.35	1064.35
	Average Loan	1064.35	1064.35	1064.35
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	94.09	94.09	94.09
	Rep Schedule	12 annual installments from 21.10.2014		
	<b>Total Loan</b>			
	Gross loan opening	13643.35	13643.35	13643.35
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	114.42
	Net Loan-Opening	13643.35	13643.35	13528.93
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	114.42	614.92
	Net Loan-Closing	13643.35	13528.93	12914.02
	Average Loan	13643.35	13586.14	13221.48
	Rate of Interest	<b>8.8123%</b>	<b>8.8107%</b>	<b>8.8063%</b>
	<b>Interest</b>	1202.30	1197.04	1164.32

