

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No.319/2010**

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

**Date of Hearing: 5.4.2011**

**Date of Order: 30.5.2011**

**In the matter of**

Determination of transmission tariff for combined assets of transmission system associated with Rihand Stage-II in Northern Region for the period from 1.4.2009 to 31.3.2014.

**And**

**In the matter of**

Power Grid Corporation of India Limited, Gurgaon

**..Petitioner**

**Vs**

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Jaipur
3. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jaipur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Power Corporation Ltd., Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Govt. of J&K, Jammu
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Delhi Transco Ltd, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Ltd., 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 U.K.Tyagi, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri Rajiv Gupta, PGCIL
4. Shri S. Raju, PGCIL



5. Shri T.P.S. Bawa, PSPCL

**ORDER**

The petition has been filed for determination of transmission tariff for combined assets of (a) 400 KV D/C Rihand-Allahabad, Allahabad-Mainpuri and Mainpuri-Ballabgarh transmission line with associated bays; (b) ICT-I at Patiala sub-station, LLO of one circuit of Nalagarh-Hissar transmission line at Kaithal, 400 KV S/C Patiala-Malerkotla transmission and ICT- III at Abdullapur sub-station with associated bays; (c) ICT-I and II at Kaithal and 4 no 220 kV line bays at Kaithal sub-station; (d) ICT-II at Patiala sub-station and LLO of one circuit (400 kV) of Nalagarh-Hissar transmission line at Patiala Sub-Station with associated bays; (e) 315 MVA, 400/220 kV ICT-I and ICT-II along with associated bays and 4 nos 220 kV line bays at Mainpuri Sub-Station; (f) 400 kV S/C Dadri-Panipat transmission line with associated bays; and (g) 2 nos. of 220 kV bays at Abdullapur sub-station (hereinafter collectively referred to as the "transmission assets") under transmission system associated with Rihand Stage-II (hereinafter referred to as 'the transmission system') in Northern Region for the period from 1.4.2009 to 31.3.2014, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 regulations") after accounting for additional capital expenditure incurred/projected to be incurred during 2009-10 and 2010-11. The petitioner has made the following additional prayers:-

- (a) To approve reimbursement of petition filing fee and publication of notices in the newspaper as per the 2009 regulations;



- (b) Allow to bill and adjust impact on interest on loan due to change in interest rate on account of floating rate of interest applicable during 2009-14, if any from the respondents;
- (c) Allow reimbursement of licence fee separately from the respondents;
- (d) In case of assets being combined to calculate the transmission charges, allow it to recover full depreciation (90% of the gross block) of the asset during its useful life (25 years for sub-station and 35 years for transmission lines) reckoning from its actual date of the commercial operation. Commission may also be pleased 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 with para 7.2 of the petition;
- (e) Allow to bill and recover the service tax on transmission charges separately from the respondents, if the petitioner is subjected to such service tax; and
- (f) Allow the petitioner to bill and recover the annual lease rent, pertaining to the forest in line with the order dated 27.9.2007 in Petition No. 2/2007.

2. The petitioner has submitted that in accordance with the procedure for combining of assets as decided by the Commission in the letter reference No. C-7/189(204)/2009-CERC, dated 23.10.2009, the following elements under Transmission system associated with Rihand Stage-II in Northern Region have been clubbed for the purpose of determination of transmission charges:

Assets	Name of the asset	Date of commercial operation
Asset-I	400 KV D/C Rihand-Allahabad, Allahabad-Mainpuri and Mainpuri-Ballabgarh transmission line with associated bays	1.6.2005
Asset-II	ICT-I at Patiala sub-station, LILO of one circuit of Nalagarh-Hissar transmission line at Kaithal, 400 KV S/C Patiala-Malerkotla transmission and ICT-III at Abdullapur sub-station with associated bays	1.10.2005
Asset-III	ICT-I and II at Kaithal and 4 no 220 kV line bays at Kaithal sub-station	1.11.2005
Asset-IV	ICT-II at Patiala sub-station and LILO of one circuit (400 kV) of Nalagarh-Hissar transmission line at Patiala sub-station with associated bays	1.12.2005
Asset-V	315 MVA, 400/220 kV ICT-I and ICT-II along with associated bays and 4 nos 220 kV line bays at Mainpuri sub-station	1.1.2006
Asset-VI	400 kV S/C Dadri-Panipat transmission line with associated bays	1.4.2006
Asset-VII	2 nos. of 220 kV bays at Abdullapur sub-station	1.11.2006

3. The petitioner has submitted that the notional date of commercial operation of the combined assets has been considered as 1.11.2006.

4. The annual transmission charges up to 31.3.2009 in respect of the Asset-I, Asset-III, Asset-IV, Asset-V, Asset-VI and Asset-VII of transmission system were approved vide order dated 15.2.2010 in Petition No. 236/2009 and for Asset-II were approved vide order dated 27.9.2007 in Petition No. 2/2007.

5. The petitioner has claimed the transmission charges as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	4721.62	4732.53	4743.04	4743.04	4743.04
Interest on Loan	3630.95	3302.34	2971.36	2629.86	2288.47
Return on Equity	4672.33	4683.53	4694.10	4694.10	4694.10
Interest on Working Capital	407.65	409.06	410.84	412.42	414.49
O & M Expenses	2722.45	2878.33	3043.17	3217.06	3400.66
<b>Total</b>	<b>16155.00</b>	<b>16005.79</b>	<b>15862.51</b>	<b>15696.48</b>	<b>15540.76</b>

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

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	408.37	431.75	456.48	482.56	510.10
O & M expenses	226.87	239.86	253.60	268.09	283.39
Receivables	2692.50	2667.63	2643.75	2616.08	2590.13
<b>Total</b>	<b>3327.74</b>	<b>3339.24</b>	<b>3353.83</b>	<b>3366.73</b>	<b>3383.62</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	407.65	409.06	410.84	412.42	414.49

7. 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 Ltd (PSPCL), Haryana Power Purchase Centre (HPPC) and Uttar Pradesh Power Corporation Limited (UPPCL). The main issues raised by respondents pertain to the petitioner's claim of additional capital expenditure after cut off date, change in interest due to floating rate of interest, lease rent, treatment of depreciation, reimbursement of filing fee, service tax and licence fee. etc. The issues have been addressed in relevant paras of this order.

8. The petitioner has prayed to allow to bill and recover the annual lease rent pertaining to the forest in line with the order dated 27.9.2007 in Petition No. 2/2007. In this it is clarified that the Commission vide order dated 27.9.2007 in Petition No. 2/2007 directed the petitioner to file an affidavit with regard to details of payment towards annual lease rent as and when actually made every year. However, the petitioner has not submitted the requisite information, the recovery of lease rent has not been allowed. The petitioner is directed to furnish the necessary information with regard to lease rent which shall be considered at the time of truing up.

### **CAPITAL COST**

9. The last proviso to clause (2) of Regulation 7 of the 2009 regulations provides as under:

*“Provided that in case of the existing projects, capital cost admitted by the Commission prior to 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14 as may be admitted by the Commission, shall form the basis for determination of tariff”.*

10. The Capital cost admitted by the Commission up to 31.3.2009 is as under:

(₹ in lakh)			
Name of the Asset	Apportioned approved cost	Capital cost as on 31.3.2009	Orders of the Commission
Asset-I	72537.88	61043.44	15.2.2010 in Petition No. 236/2009
Asset-II	12269.03	11139.76	27.9.2007 in Petition No. 70/2009
Asset-III	4490.94	3979.28	15.2.2010 in Petition No. 236/2009
Asset-IV	5458.33	4141.39	15.2.2010 in Petition No. 236/2009
Asset-V	4064.18	3993.29	15.2.2010 in Petition No. 236/2009
Asset-VI	5622.76	5838.64	15.2.2010 in Petition No. 236/2009
Asset-VII	-	424.59	15.2.2010 in Petition No. 236/2009
	<b>104443.12</b>	<b>90560.39</b>	

11. The above admitted capital cost of ₹ 90560.39 lakh as on 31.3.2009 has been considered for determination of transmission tariff.

12. The petitioner has claimed the tariff after accounting for additional capital expenditure as under:

(₹ in lakh)			
Admitted capital cost as on 31.3.2009	Capital expenditure incurred during 2009-10	Capital expenditure incurred during 2010-11	Total estimated capital expenditure
90560.39	24.10	403.21	90987.70

### **ADDITIONAL CAPITAL EXPENDITURE**

13. Regulation 9 of the 2009 regulations provides as under:

*“(1) The capital expenditure incurred or projected to be incurred, on the following counts within 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) \*\*\*\*\**
- (iv) \*\*\*\*\**

- (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."*

14. The details submitted by the petitioner in support of its claim for projected additional capital expenditure for the Asset-I, Asset-III, Asset-IV, Asset-V and Asset-VI are given hereunder:

Years	Years	Nature and details of expenditure	Amount (₹ in lakh)
Asset-I	2009-10	Transmission line- Retention/Balance payments	0.10
Asset-III	2009-10	Land- Retention/Balance payments	7.05
	2010-11	Sub-station- Retention/Balance payments	65.30
Asset-IV	2009-10	Building and Civil works - Retention/Balance payments	5.36
		Sub-station- Retention/Balance payments	9.73
	2010-11	Building and Civil works - Retention/Balance payments	13.95
		Sub-station- Retention/Balance payments	135.50
Asset-V	2010-11	Sub-station- Retention/Balance payments	188.46
Asset-VI	2009-10	Transmission line- Retention/Balance payments	1.86
	Total		427.31

15. Punjab State Power Corporation Ltd. (PSPCL), the successor of PSEB in its reply has submitted that the additional capital expenditure for balance and retention payment after cut-off date is not permissible under the 2009 regulations. UPPCL has submitted that the petitioner should explain the contractual exigencies and other reasons beyond its control before the



expenditure is admitted. In response, the petitioner in its rejoinder has submitted that additional expenditure projected is the legitimate expenditure which is within original scope of work and pertains to balance/retention payment for which work has already been completed.

16. The petitioner has claimed the additional capital expenditure of ₹ 427.31 lakh under Regulation 9 (2) of the 2009 regulations on account of balance/retention payments incurred/proposed to be incurred during 2009-10 and 2010-11 towards freehold land, building, transmission line and sub-station. The petitioner has requested for relaxation of Regulations 9 (2) of the 2009 regulations to allow the additional capital expenditure incurred/proposed to be incurred during 2009-10 and 2010-11 on account of undischarged liabilities after cut-off date is allowed.

17. With regard to admissibility of undischarged liabilities, it is observed that the cut off date of the transmission assets reckoned from the notional date of commercial operation as per the 2004 tariff regulations is 31.3.2009. As such the expenditure projected to be incurred during 2009-10 and 2010-11 are beyond the cut off date for which there is no provision in Regulation 9 (2) of the 2009 regulations. We have decided in our order dated 8.2.2011 in Petition No. 176/2010 to relax Regulation 9 (2) of the 2009 regulations to admit the expenditure incurred after the cut-off date, particularly the expenditure pertaining to balance and retention payments. Accordingly, the expenditure of ₹ 427.31 lakh projected to be incurred during 2009-10 and

2010-11 is allowed by relaxing the provisions of Regulation 9 (2) of the 2009 regulations.

### **TOTAL CAPITAL COST**

18. Based on the above, gross block as given below, has been considered for the purpose of tariff for the transmission assets, after allowing projected additional capital expenditure as claimed by the petitioner:

(₹ in lakh)

Admitted capital cost as on 31.3.2009	Projected additional capital expenditure incurred during 2009-10	Projected additional capital expenditure incurred during 2010-11	Total capital expenditure as on 1.4.2014
90560.39	24.10	403.21	90987.70

### **DEBT- EQUITY RATIO**

19. Clause (2) of Regulation 12 of the 2009 regulations *inter-alia* provides that,-

*“(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.”*

20. The petitioner has claimed tariff based on debt-equity ratio of 70.49:29.51 as admitted on 31.3.2009 vide order dated 27.9.2007 in Petition 70/2009 and order dated 15.2.2010 in Petition No. 236/2009. The petitioner has further claimed the amount of additional capital expenditure in the debt-

equity ratio of 70:30 for the years 2009-10 and 2010-11. For the purpose of tariff, equity considered for the transmission asset is as under:

(₹ in lakh)						
Equity as on 1.4.2009	Notional equity due to additional capital expenditure for the period 2009-10	Average equity for 2009-10	Notional equity due to additional capital expenditure for the period 2010-11	Average equity for 2010-11	Equity for the period 2011-14	Average equity for 2011-14
26724.41	7.23	26728.03	120.96	26792.12	26852.60	26852.60

### RETURN ON EQUITY

21. 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 normal tax rate for the year 2008-09 applicable to the concerned generating company or the transmission licensee, as the case may be:*

*Provided that return on equity with respect to the actual 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 separately for each year of the tariff period along with the tariff petition filed for the next tariff period.*

*(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."*

22. In regard to MAT, the Commission vide its order dated 3.8.2010 in Petition No. 17/2010 has taken a decision to amend the 2009 regulations. The relevant portion of the said order is extracted as under:

*“We are of the view that this issue of ‘grossing up the base rate with the normal tax rate for the year 2008-09’ is generic in nature and therefore, it will be appropriate to make suitable provisions in the 2009 regulations to cater to any future changes in the tax rate. Accordingly, we direct the staff of the Commission to prepare and submit draft amendment to the 2009 regulations for allowing 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 generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis. Any under/over recovery on account of direct settlement of tax liability shall be subject to the final adjustment at the time of true up exercise.”*

23. Accordingly, the return on equity has been computed as per the existing provision of Regulation 15 (3) of 2009 regulation as under:

(₹ in lakh)					
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Equity as on 1.4.2009	26724.41	26731.64	26852.60	26852.60	26852.60
Addition due to Additional Capitalisation	7.23	120.96	0.00	0.00	0.00
Closing Equity	26731.64	26852.60	26852.60	26852.60	26852.60
Average Equity	26728.03	26792.12	26852.60	26852.60	26852.60
Return on Equity (Base Rate )	15.50%	15.50%	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	<b>4672.33</b>	<b>4683.53</b>	<b>4694.10</b>	<b>4694.10</b>	<b>4694.10</b>

### **INTEREST ON LOAN**

24. 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."*

25. HPPC has submitted that the issue of change in interest due to floating rate of interest applicable on floating interest rate loan may be dealt in the same manner as the issue of change of tax rate as per the

relevant Finance Act as decided by the Commission in its order dated 3.8.2010 in Petition No. 38/2010. UPPCL has sought a direction to the petitioner not to negotiate any floating rates of interest in future which could add to the burden of the consumers. In response, the petitioner has submitted that the Commission had allowed direct settlement with the beneficiaries any change in interest on account of floating rate of interest for the tariff during 2004-09 and the rate of interest may increase or decrease during the tariff period. Thus, it would be equitable and fair to allow annual adjustment of the difference in interest rate. The petitioner has submitted that PGCIL has followed the same practice with regard to claiming change in interest due to floating rate of interest for the period 2009-14. It is clarified that interest on loan has been calculated in this order on the basis of rate prevailing as on 1.4.2009. Any change in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

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

- (i) 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;
- (ii) The repayment for the tariff period 2009-14 have been deemed to be equal to the depreciation allowed for that period;
- (iii) Where Moratorium period has been 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.;

- (iv) Weighted average rate of interest on actual loan has been worked out as per (i) above and applied on the average loan during the year to arrive at the interest on loan; and
- (v) The interest on loan has been calculated on the basis of rate prevailing as on 1.4.2009. Any change in rate of interest subsequent to 1.4.2009 will be considered at the time of truing up.

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

(₹ in lakh)						
Details of loan	Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	63835.98	63835.98	63852.85	64135.10	64135.10	64135.10
Cumulative Repayment up to Previous Year		11235.90	15957.52	20690.06	25433.10	30176.14
Net Loan-Opening		52600.08	47895.32	43445.04	38702.00	33958.96
Addition due to Additional Capitalisation		16.87	282.25	0.00	0.00	0.00
Repayment during the year		4721.62	4732.53	4743.04	4743.04	4743.04
Net Loan-Closing		47895.32	43445.04	38702.00	33958.96	29215.92
Average Loan		50247.70	45670.18	41073.52	36330.48	31587.44
Weighted Average Rate of Interest on Loan		7.2261%	7.2309%	7.2342%	7.2387%	7.2449%
<b>Interest</b>		<b>3630.95</b>	<b>3302.34</b>	<b>2971.36</b>	<b>2629.86</b>	<b>2288.47</b>

## **DEPRECIATION**

28. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner:

*"17. (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.*

*(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

*xxxx*

*(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*

*(4) 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 assets.*

*(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.*

*(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis."*

29. UPPCL has submitted that the rate of depreciation for gross block is found out and applied to the average value of gross block of the year and in view of the divergent views the issue of treatment of depreciation in case of combined assets is required to be clarified. In response, the petitioner has submitted that in case of the assets being combined to calculate the transmission charges, it has prayed to allow 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. It is clarified that the notional date of commercial operation of the combined assets has been considered as 1.11.2006. Accordingly, they will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and at rates specified in **Appendix-III** of the 2009 regulations. Accordingly, depreciation works out as under:

(₹ in lakh)							
Details of Depreciation		Up to 31.3.2009	2009-10	2010-11	2011-12	2012-13	2013-14
Gross block as per last order		90560.39	90560.39	90584.49	90987.70	90987.70	90987.70
Addition during 2009-14 due to projected Additional Capitalisation			24.10	403.21	0.00	0.00	0.00
Gross block			90584.49	90987.70	90987.70	90987.70	90987.70
Average gross block			90572.44	90786.10	90987.70	90987.70	90987.70
Rate of Depreciation			5.2131%	5.2128%	5.2128%	5.2128%	5.2128%
Depreciable Value	90%		80931.02	81120.14	81301.58	81301.58	81301.58
Remaining Depreciable Value			69699.45	65166.94	60615.86	55872.82	51129.78
<b>Depreciation</b>			<b>4721.62</b>	<b>4732.53</b>	<b>4743.04</b>	<b>4743.04</b>	<b>4743.04</b>

### OPERATION & MAINTENANCE EXPENSES

30. In accordance with clause (g) of Regulation 19 the 2009 regulations, the following norms for 400 kV D/C, 400 kV S/C twin/three conductor transmission line and 400 kV bay and 220 kV bay are prescribed for O & M expenses:

Year	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C twin/three conductor transmission line (₹ in lakh /km)	0.627	0.663	0.701	0.741	0.783
400 kV S/C twin conductor transmission line (₹ in lakh /km)	0.358	0.378	0.400	0.423	0.447
400 kV bays (₹ in lakh/ bay)	52.40	55.40	58.57	61.92	65.46
220 kV bay (₹ in lakh/bay)	36.68	38.78	41.00	43.34	45.82

31. The petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(₹ in lakh)					
Year	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses for 400 KV twin/three conductor D/C transmission line (279.245+363.429+235.952+31.852+11.436=921.914 ckt/km)	578.04	611.23	646.26	683.14	721.86
O&M expenses for 400 KV S/C twin conductor transmission line	64.13	67.72	71.66	75.78	80.08
O&M expenses for 440 kV bays (25 bays)	1310.00	1385.00	1464.25	1548.00	1636.50
O&M expenses for 220 kV ( 21 bays)	770.28	814.38	861.00	910.14	962.22
<b>Total</b>	<b>2722.45</b>	<b>2878.33</b>	<b>3043.17</b>	<b>3217.06</b>	<b>3400.66</b>

32. PSPCL has submitted that O & M expenses should be allowed as per 2009 regulations. The petitioner has submitted that O & M expenditure for 2009-14 tariff block had 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 2009-14 periods. The petitioner has submitted that it would approach the Commission for suitable revision in the norms of O & M expenses in case the impact of wage hike w.e.f. 1.1.2007 is more than 50%. With reference to the submission of the petitioner, it is clarified that if any such application is made, it will be dealt with in accordance with law.

## **INTEREST ON WORKING CAPITAL**

33. 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 annual transmission charges. 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 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 specified in Regulation 19 of the 2009 regulations. The value of maintenance spares has been accordingly 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 O&M expenses of the respective year which has been considered for computing the working capital.

(iv) **Rate of interest on working capital:** As per Regulation 18(3) of the 2009 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate

of State Bank of India as on 1.4.2009 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2009, which is in accordance with the 2009 regulations and has been allowed.

34. The necessary computations in support of interest on working capital are given as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	408.37	431.75	456.48	482.56	510.10
O & M expenses	226.87	239.86	253.60	268.09	283.39
Receivables	2692.50	2667.63	2643.75	2616.08	2590.13
<b>Total</b>	<b>3,327.74</b>	<b>3,339.24</b>	<b>3,353.83</b>	<b>3,366.73</b>	<b>3,383.61</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on working capital	<b>407.65</b>	<b>409.06</b>	<b>410.84</b>	<b>412.42</b>	<b>414.49</b>

### TRANSMISSION CHARGES

35. The transmission charges being allowed for the transmission asset are summarised below:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	4721.62	4732.53	4743.04	4743.04	4743.04
Interest on Loan	3630.95	3302.34	2971.36	2629.86	2288.47
Return on Equity	4672.33	4683.53	4694.10	4694.10	4694.10
Interest on Working Capital	407.65	409.06	410.84	412.42	414.49
O & M Expenses	2722.45	2878.33	3043.17	3217.06	3400.66
<b>Total</b>	<b>16155.00</b>	<b>16005.79</b>	<b>15862.52</b>	<b>15696.49</b>	<b>15540.77</b>

### **Application fee and the publication expenses**

36. UPPCL has submitted that the filing fee should be governed by the Hon'ble Commission's order dated 11.9.2008 in Petition No. 129/2005. It is

clarified that the said decision was applicable to the tariff period 2004-09. However, Regulation 42 of the 2009 regulation provides for reimbursement of filing fees and expenses on publication of notices as may be allowed at the discretion of the Commission. We have decided the following in our order dated 11.1.2010 in Petition No. 109/2009:

*"85. The Commission after careful consideration has decided that filing fee will be reimbursed in the following cases:*

- (a) Main petitions for determination of tariff;*
- (b) Petitions for revisions of tariff due to additional capital expenditure.;*
- (c) Petitions for truing up of expenditure.*

*Filing fees paid for filing the Review Petitions, Interlocutory Applications and other Miscellaneous Applications will not be reimbursed in tariff. The Commission has decided to reimburse the expenses on publication of notices as such expenses are incurred to meet the statutory requirement of transparency in the process of determination of tariff."*

37. In accordance with the said decision, the petitioner shall be entitled to recover the filing fee from the beneficiaries on pro rata basis. The petitioner shall also be entitled for reimbursement of publication expenses from the beneficiaries on pro-rata basis.

### **Service Tax**

38. The petitioner has prayed to allow 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 is notified as a taxable service. The prayer of the petitioner has been opposed by UPPCL. As the petitioner has no liability for service tax at present, the prayer is infructuous and is accordingly rejected.

### **Licence fee**

39. UPPCL has submitted that the payment of licence fee is the onus of the petitioner and the claim is not tenable. In this regard, it is clarified that the matter is under consideration of the Commission and any decision on the issue as and when taken will be applicable to this petition.

40. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondents in accordance with Regulation 33 of the 2009 regulations.

41. This order disposes of Petition No. 319/2010.

**Sd/-**  
**(V.S.Verma)**  
**Member**

**Sd/-**  
**(S.Jayaraman)**  
**Member**

**Sd/-**  
**(Dr. Pramod Deo)**  
**Chairperson**



## Annexure

## CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

		(₹ in lakh)				
	Details of Loan	2009-10	2010-11	2011-12	2012-13	2013-14
<b>1</b>	<b>Bond XIII Option-I</b>					
	Gross loan opening	5124.00	5124.00	5124.00	5124.00	5124.00
	Cumulative Repayment up to DOCO/previous year	1281.00	1708.00	2135.00	2562.00	2989.00
	Net Loan-Opening	3843.00	3416.00	2989.00	2562.00	2135.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	427.00	427.00	427.00	427.00	427.00
	Net Loan-Closing	3416.00	2989.00	2562.00	2135.00	1708.00
	Average Loan	3629.50	3202.50	2775.50	2348.50	1921.50
	Rate of Interest	8.63%	8.63%	8.63%	8.63%	8.63%
	Interest	313.23	276.38	239.53	202.68	165.83
	Rep Schedule	12 Annual instalments from 31.7.2006				
<b>2</b>	<b>Bond XIV</b>					
	Gross loan opening	52.00	52.00	52.00	52.00	52.00
	Cumulative Repayment up to DOCO/previous year	21.67	26.00	30.33	34.67	39.00
	Net Loan-Opening	30.33	26.00	21.67	17.33	13.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	4.33	4.33	4.33	4.33	4.33
	Net Loan-Closing	26.00	21.67	17.33	13.00	8.67
	Average Loan	28.17	23.83	19.50	15.17	10.83
	Rate of Interest	6.10%	6.10%	6.10%	6.10%	6.10%
	Interest	1.72	1.45	1.19	0.93	0.66
	Rep Schedule	12 Annual instalments from 17.7.2004				
<b>3</b>	<b>Bond XV</b>					
	Gross loan opening	23942.00	23942.00	23942.00	23942.00	23942.00
	Cumulative Repayment up to DOCO/previous year	3990.33	5985.50	7980.67	9975.83	11971.00
	Net Loan-Opening	19951.67	17956.50	15961.33	13966.17	11971.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	1995.17	1995.17	1995.17	1995.17	1995.17
	Net Loan-Closing	17956.50	15961.33	13966.17	11971.00	9975.83
	Average Loan	18954.08	16958.92	14963.75	12968.58	10973.42
	Rate of Interest	6.68%	6.68%	6.68%	6.68%	6.68%
	Interest	1266.13	1132.86	999.58	866.30	733.02
	Rep Schedule	12 Annual instalments from 23.2.2008				
<b>4</b>	<b>BOND XVI</b>					
	Gross loan opening	24904.00	24904.00	24904.00	24904.00	24904.00
	Cumulative Repayment up to DOCO/previous year	2490.40	4980.80	7471.20	9961.60	12452.00
	Net Loan-Opening	22413.60	19923.20	17432.80	14942.40	12452.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	2490.40	2490.40	2490.40	2490.40	2490.40
	Net Loan-Closing	19923.20	17432.80	14942.40	12452.00	9961.60
	Average Loan	21168.40	18678.00	16187.60	13697.20	11206.80
	Rate of Interest	7.10%	7.10%	7.10%	7.10%	7.10%



	Interest	1502.96	1326.14	1149.32	972.50	795.68
	Rep Schedule	10 Annual instalments from 18.2.2009				
<b>5</b>	<b>BOND XVII</b>					
	Gross loan opening	3750.00	3750.00	3750.00	3750.00	3750.00
	Cumulative Repayment up to DOCO/previous year	0.00	375.00	750.00	1125.00	1500.00
	Net Loan-Opening	3750.00	3375.00	3000.00	2625.00	2250.00
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	375.00	375.00	375.00	375.00	375.00
	Net Loan-Closing	3375.00	3000.00	2625.00	2250.00	1875.00
	Average Loan	3562.50	3187.50	2812.50	2437.50	2062.50
	Rate of Interest	7.39%	7.39%	7.39%	7.39%	7.39%
	Interest	263.27	235.56	207.84	180.13	152.42
	Rep Schedule	10 Annual instalments from 22.9.2009				
<b>6</b>	<b>BOND XVIII (ADDCAP FOR 2005-06)</b>					
	Gross loan opening	5606.00	5606.00	5606.00	5606.00	5606.00
	Cumulative Repayment up to DOCO/previous year	0.00	467.17	934.33	1401.50	1868.67
	Net Loan-Opening	5606.00	5138.83	4671.67	4204.50	3737.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	467.17	467.17	467.17	467.17	467.17
	Net Loan-Closing	5138.83	4671.67	4204.50	3737.33	3270.17
	Average Loan	5372.42	4905.25	4438.08	3970.92	3503.75
	Rate of Interest	8.15%	8.15%	8.15%	8.15%	8.15%
	Interest	437.85	399.78	361.70	323.63	285.56
	Rep Schedule	12 Annual instalments from 9.3.2010				
<b>7</b>	<b>Bond XIX (add cap for 2006-07)</b>					
	Gross loan opening	170.00	170.00	170.00	170.00	170.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	14.17	28.33	42.50
	Net Loan-Opening	170.00	170.00	155.83	141.67	127.50
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	14.17	14.17	14.17	14.17
	Net Loan-Closing	170.00	155.83	141.67	127.50	113.33
	Average Loan	170.00	162.92	148.75	134.58	120.42
	Rate of Interest	9.25%	9.25%	9.25%	9.25%	9.25%
	Interest	15.73	15.07	13.76	12.45	11.14
	Rep Schedule	12 Annual instalments from 24-7-2010				
<b>8</b>	<b>Bond XXII (add cap for 2006-07)</b>					
	Gross loan opening	1410.72	1410.72	1410.72	1410.72	1410.72
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	117.56	235.12	352.68
	Net Loan-Opening	1410.72	1410.72	1293.16	1175.60	1058.04
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	117.56	117.56	117.56	117.56
	Net Loan-Closing	1410.72	1293.16	1175.60	1058.04	940.48
	Average Loan	1410.72	1351.94	1234.38	1116.82	999.26
	Rate of Interest	8.68%	8.68%	8.68%	8.68%	8.68%
	Interest	122.45	117.35	107.14	96.94	86.74
	Rep Schedule	12 Annual instalments from 7-12-2010				
<b>9</b>	<b>Bond XXXI</b>					



Gross loan opening	0.00	16.87	16.87	16.87	16.87
Cumulative Repayment up to DOCO/previous year	0.00	0.00	0.00	0.00	0.00
Net Loan-Opening	0.00	16.87	16.87	16.87	16.87
Additions during the year	16.87	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00	0.00	1.41
Net Loan-Closing	16.87	16.87	16.87	16.87	15.46
Average Loan	8.44	16.87	16.87	16.87	16.17
Rate of Interest	8.90%	8.90%	8.90%	8.90%	8.90%
Interest	0.75	1.50	1.50	1.50	1.44
Rep Schedule	12 Annual instalments from 25-2-2014				
<b>Total Loan</b>					
Gross loan opening	64958.72	64975.59	64975.59	64975.59	64975.59
Cumulative Repayment up to DOCO/previous year	7783.39	13542.46	19433.25	25324.05	31214.84
Net Loan-Opening	57175.33	51433.13	45542.34	39651.54	33760.75
Additions during the year	16.87	0.00	0.00	0.00	0.00
Repayment during the year	5759.07	5890.79	5890.79	5890.79	5892.20
Net Loan-Closing	51433.13	45542.34	39651.54	33760.75	27868.55
Average Loan	54304.23	48487.73	42596.94	36706.15	30814.65
<b>Weighted Average Rate of Interest</b>	<b>7.2261%</b>	<b>7.2309%</b>	<b>7.2342%</b>	<b>7.2387%</b>	<b>7.2449%</b>
<b>Interest</b>	<b>3924.08</b>	<b>3506.08</b>	<b>3081.57</b>	<b>2657.06</b>	<b>2232.48</b>