

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No.294/2010

Coram:

1. Dr. Pramod Deo, Chairperson
2. Shri S.Jayaraman, Member
3. Shri V.S.Verma, Member
4. Shri M.Deena Dayalan, Member

DATE OF HEARING: 8.2.2011

DATE OF ORDER: 5.7.2011

In the matter of

Determination of transmission tariff from date of commercial operation to 31.3.2014 for Northern Region System Strengthening Scheme-V (Part) for tariff block 2009-14 in Northern Region.

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 (Haryana)
8. Power Development Deptt., Jammu
9. Uttar Pradesh Power Corporation Ltd., Lucknow
10. Delhi Transco Ltd., New Delhi
11. BSES Yamuna Power Ltd., 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 R. Prasad, PGCIL
2. Shri M.M. Mondal, PGCIL
3. Shri Shasank Kumar, PGCIL



ORDER

The petition has been filed by Power Grid Corporation of India Limited for approval of the transmission charges under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as 'the 2009 regulations'), in respect of the Northern Region System Strengthening Scheme-V (Part) in the Northern Region from the date of commercial operation to 31.3.2014. The petitioner has made the following additional prayers:-

- (a) Approve the projected additional capitalization from the date of commercial operation to 31.3.2012;
- (b) 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;
- (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) In case of the assets being combined to calculate the transmission charges, 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 the date of commercial operation. Hon'ble 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 actual the date of commercial operation);

- (e) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in interest rate on account of floating rate of interest applicable during 2009-14 period, if any, from the respondent;
- (f) 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;
- (g) Allow the petitioner to bill and recover licensee fee separately from the respondents.

2. Project scope of the transmission system associated with Barh Generation Project is as follows:

Transmission Lines

- (i) LILO of 400 kV S/C Hissar-Jaipur Line at Bhiwadi- 80 Km
- (ii) 400 kV D/C Bhiwadi-Agra Line- 216 km
- (iii) 400 kV D/C Bhiwadi-Moga Line- 370 km



Sub-Station

- (a) Extension of 400 kV Agra (PGCIL) Sub-station
- (b) Extension of 400/220 kV Moga (PGCIL) Sub-station
- (c) Extension of 400/220 kV Bhiwadi (PGCIL) Sub-station

3. The administrative approval and expenditure sanction to the transmission project was accorded by Government of India vide Ministry of Power letter No. 12/15/2004-PG dated 9.6.2006 at an estimated cost of ₹ 72125 lakh, including IDC of ₹ 3266 lakh based on 4th quarter, 2005 price level.

4. The present petition covers determination of tariff based on actual expenditure incurred up to the date of commercial operation and additional capitalisation projected to be incurred from date of commercial operation to 31.3.2011 and during 2011-12 for the following assets under transmission system associated with Northern Region System Strengthening Scheme Part- V:

Sl. No.	Name of the asset	Actual date of commercial operation
1	LILO of 400 kV S/C Hissar-Bassi line at Bhiwadi (Asset-1)	1.4.2009
2	400 kV D/C Bhiwadi-Agra line (Asset-2)	1.9.2009
3	400 kV D/C Bhiwadi-Moga transmission line (Asset-3)	1.4.2010

5. Notional date of commercial operation of the transmission asset is 1.4.2010.



6. Tariff for the first asset of the Northern Region System Strengthening Scheme-V LILO of 400 kV Hissar Bassi Transmission Line at Bhiwadi and 400 kV D/C Agra-Bhiwadi Line have been clubbed in Petition No. 251/2010 and accordingly, the tariff has been determined by the Commission vide order dated 25.5.2011.

7. The Asset 3 was declared for commercial operation on 1.4.2010 and it has been clubbed with the other two assets, in the present petition, with notional date of commercial operation as 1.4.2010 for the purpose for tariff determination for the period 1.4.2010 to 31.3.2014.

8. The details of apportioned approved cost as on the date of commercial operation and estimated additional capital expenditure projected to be incurred for the assets covered in this petition are summarized as under:

(₹ in lakh)

Name of Assets	Apportioned FR cost	Actual cost incurred as on Date of commercial operation	Projected Additional capital expenditure			Total estimated completion cost	
			Date of commercial operation to 31.3.2010	2010-11	2011-12		2012-13
Asset-1	9290.43	7132.56*	212.98	1454.98	534.47	-	9334.99
Asset-2	23400.32	20850.00*	298.42	1315.00	64.05	-	22527.47
Asset-3	38247.39	33302.70*	-	1333.94	449.30	-	35085.94
Total	70938.14	61285.26	511.40	4103.92	1047.82	-	66948.40

*Capital Cost as on date of commercial operation is inclusive of initial spares of ₹ 29.00 lakh, ₹152.11 lakh and ₹ 296.25 lakh for Asset-1, Asset-2 and Asset-3 respectively which are within the ceiling limit as specified in Regulation 8 of 2009 regulations.



9. Total estimated completion cost for the Asset-1 exceeds the apportioned approved capital cost. However, total estimated completion cost falls within the apportioned approved capital cost of the project.

10. The petitioner has claimed the transmission charges for the period 2010-14 as under:

(₹ in lakh)				
	2010-11	2011-12	2012-13	2013-14
Depreciation	3374.50	3510.82	3538.51	3538.51
Interest on Loan	1192.05	1145.16	1053.30	951.04
Return on Equity	3348.41	3483.50	3510.98	3510.98
Interest on Working Capital	204.92	212.09	214.19	215.12
O & M Expenses	976.79	1032.72	1091.73	1153.91
Total	9096.67	9384.29	9408.71	9369.56

11. The details submitted by the petitioner in support of its claim for Interest on Working Capital are given as under:

(₹ in lakh)				
	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	146.52	154.91	163.76	173.09
O & M expenses	81.40	86.06	90.98	96.16
Receivables	1516.11	1564.05	1568.12	1561.59
Total	1744.03	1805.02	1822.86	1830.84
Rate of Interest	11.75%	11.75%	11.75%	11.75%
Interest	204.92	212.09	214.19	215.12

12. 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. Replies to the petition have been filed by Uttar Pradesh Power Corporation Limited (UPPCL), respondent No. 9, and Punjab State Power Corporation Ltd., (PSPCL) the successor of Punjab State Electricity Board, respondent No.6.



13. Uttar Pradesh Power Corporation Limited (UPPCL), respondent No.9 has filed reply, vide affidavit dated 2.2.2011 to the petition. The submissions made by the respondent No. 9 are as follows:

- (a) That there was a time over run of 3 months and cost over-run of ₹ 44.56 lakh in case of 400 kV D/C Bhiwadi-Agra Line, and time over-run of 9 months in case of 400 kV D/C Bhiwadi-Moga Line. The Commission should decide the validity of the time and cost overrun.
- (b) The tariff for Assets 1 and 2 has been claimed in petition No. 251/2010 and has also been combined with Asset 3 in this petition. The Commission may approve the tariff for Assets 1 and 2 in petition No. 251/2010 up to 31.3.2010 and the tariff for Assets 1, 2 and 3 in this petition w.e.f. 1.4.2010 to 31.3.2014 to avoid duplication of billing.
- (c) That the grossing up of the yearly MAT rates with the base rate of return on equity may be considered as per the amendment made to the 2009 regulations, as directed by the Commission in the order dated 3.8.2010 in petition No. 38/2010.
- (d) The date of commercial operation of the asset is 1.4.2010 and the benefits under Section 80-1A of Income Tax Act, 1961 are admissible and hence no tax is leviable on the asset. Therefore, grossing up of base rate of return with equity is not justified.



- (e) As regards the petitioner's prayer for hike in O & M expenses if the impact of wage revision is more than 50%, UPPCL has submitted that once the normative parameters have been defined, the question of considering the 'actuals' does not arise. The 2009 regulations have been framed after detailed consultation, discussion and public hearing and its sanctity should be maintained.
- (f) That filing fee may be approved as decided by the Commission in earlier orders.
- (g) The onus of the license fee is of the licensee and therefore there is no justification of passing over its burden to the consumers.
- (h) That the prayer of the petitioner for reimbursement of service tax is not tenable in view of the notification no. 11/2010 – Service Tax dated 27.2.2010 and 45/2010 – Service Tax dated 20.7.2010 and the order of the Commission dated 23.9.2010 in Petition No. 62/2009.

14. Punjab State Power Corporation Limited (PSPCL), the successor of Punjab State Electricity Board, respondent No.6, in its reply filed vide affidavit dated 20.6.2011 has made the following submissions-

- (a) That the petitioner has submitted that there has not been any cost over-run in case of Asset 3 and has shown reduced cost. However, the reduction in cost is primarily



due to reduction in actual length from 370 km to 355.525 km.

- (b) That the justifications given for delay in commissioning of Asset Nos. 2 and 3 are not valid.
- (c) Though the petitioner has claimed higher O&M charges, it should be allowed only as per the 2009 regulations.
- (d) That ROE should be allowed on actual equity subject to 30% limit.

15. The petitioner has not filed any rejoinder to the above replies. As regards the concern of the respondents regarding duplication of billing, it is clarified that the annual transmission charges approved vide our order dated 25.5.2011 in respect of Asset No.1 and 2 shall be applicable from the date of their commercial operation of the assets till 31.3.2010 and for the period 1.4.2010 to 31.3.2014, transmission charges in respect of Asset Nos.1, 2 and 3 shall be governed by this order. Other objections raised by the respondents have been discussed in the relevant parts of this order.

CAPITAL COST

16. Clause (1) of Regulation 7 of the 2009 regulations provides for the calculation of capital cost 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.”

17. Capital cost of ₹ 61796.66 lakh as on 1.4.2010 (₹ 28493.96 lakh for combined Asset-1 and Asset-2 as admitted in the order dated 25.5.2011 in petition No 251/2010 and ₹ 33302.70 lakh for Asset-3 as per Chartered Accountant certificate dated 10.6.2010) has been considered for the purpose of tariff calculation.

Time and Cost over-run

18. There was a time over-run of three months in respect of 400kV D/C Bhiwadi-Agra transmission line. The Commission in its order dated 25.5.2011 in Petition No. 251/2010 has already condoned the time and cost over-run of the transmission line being beyond the control of the petitioner.

19. In respect of 400kV D/C Bhiwadi-Moga transmission line, there was a time over-run of nine months. The petitioner has submitted that the reasons of time over run in 400 kV D/C Bhiwadi-Moga transmission line are mainly due to ROW problem and court case at two locations no. 154/1 and 155/2 during the period from 4.10.2007 to 4.11.2009. The certified copy of the Hon'ble High Court of Punjab and Haryana's decision was received on 16.11.2009 and work started in both the locations on 19.11.2009. The line was ready for charging on 12.3.2010 and was finally charged on 31.3.2009.



20. It has also been submitted that the work at location 64/7 and 65/0 was stayed by Lower/ Sessions court on 8.8.2008 and stay was vacated by Hon'ble High Court of Punjab and Haryana on 31.3.2009 and the work was completed in September, 2009 with the help of police. As per the petitioner's submissions, another reason for delay was heavy rains in the area during August, 2008 which caused a flood like situation in the area, which had hampered the erection work adversely.

21. The reasons given by the petitioner for delay in this transmission line are justified as work was delayed due to court cases at location nos. 154/1 and 155/2. The final orders were received in November, 2009 and the transmission line was charged in March, 2010. Time over-run of 9 months, in the case of Asset-3, is condoned.

22. There was no delay in commissioning of Asset 1. Delay of 3 months in commissioning Asset 2 has already been considered and condoned in order dated 25.2.2011 in petition No. 251/2010. The delay of 9 months in the case of Asset 3 is justified and is condoned as stated hereinabove. The cost over-run of ₹ 44.56 lakh in the case of Asset 1 has been condoned in the order dated 25.2.2011 in petition No. 251/2010. There is no cost over-run in the case of Assets 2 and 3.



ADDITIONAL CAPITAL EXPENDITURE

23. Regulation 9(1) of 2009 regulations provides as under:

"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;"

24. The notional date of commercial operation of the transmission assets is 1.4.2010. The cut-off date for the assets is 31.3.2013 as per Regulation 3 (11) of the 2009 regulations.

25. The petitioner has claimed additional capital expenditure of ₹ 4103.92 lakh, ₹ 1047.82 lakh for the year 2010-11 (date of commercial operation to 31.3.2011) and 2011-12, respectively. Additional capital expenditure claimed falls within the cut-off date. Hence, the same has been considered for the purpose of tariff calculation as under:

	(₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	61796.66	65900.58	66948.40	66948.40
Addition during 2009-14	4103.92	1047.82	0.00	0.00
Gross Block	65900.58	66948.40	66948.40	66948.40



DEBT- EQUITY RATIO

26. Regulation 12 of the 2009 regulations provides as under:-

“(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) 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.”

27. The detail of Debt-Equity of combined asset claimed by the petitioner is as given hereunder:

(₹ in lakh)

	Approved		Capital cost as on date of commercial operation/ 1.4.2010	
Combined Assets of NRSS-V				
	(₹ in lakh)	%	(₹ in lakh)	%
Debt	49656.70	70.00	43257.66	70.000
Equity	21281.44	30.00	18539.00	30.000
Total	70938.14	100.00	61796.66	100.00

28. Detail of Debt-Equity considered for the purpose of tariff calculation as on date of commercial operation are as per following:-

(₹ in lakh)

	Approved		Capital Cost as on date of commercial operation	
Asset-1				
Particulars	Amount (₹ in lakh)	%	Amount (₹ in lakh)	%
Debt	6503.30	70.00	4992.70	70.00
Equity	2787.13	30.00	2139.86	30.00
Total	9290.43	100.00	7132.56	100.00
Asset-2				
Debt	16380.22	70.00	14595.80	70.00
Equity	7020.09	30.00	6254.20	30.00
Total	23400.31	100.00	20850.00	100.00
Asset-3				
Debt	26773.17	70.00	23669.16	70.00
Equity	11474.22	30.00	10144.94	30.00
Total	38247.39	100.00	33814.10	100.00



Combined Assets 1,2 and 3				
Debt	49656.70	70.00	43258.37	70.001
Equity	21281.44	30.00	18538.29	29.999
Total	70938.14	100.00	61796.66	100.00

29. Details of projected additional capital expenditure claimed by the petitioner is as given hereunder:

(₹ in lakh)				
	Actual		Normative	
	(₹ in lakh)	%	(₹ in lakh)	%
Additional capital expenditure for 2010-11				
Debt	0.00	0.00	2872.74	70.00
Equity	0.00	0.00	1231.18	30.00
Total	0.00	0.00	4103.92	100.00
Additional capital expenditure for 2011-12				
Debt	0.00	0.00	733.47	70.00
Equity	0.00	0.00	314.35	30.00
Total	0.00	0.00	1047.82	100.00

RETURN ON EQUITY

30. 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."

31. The petitioner has computed return on equity on pre-tax basis on 11.33% MAT in accordance with tax rate applicable for the year 2008-09 and claimed return on equity of @ 17.481%.

32. The petitioner has prayed for grossing up of base rate of return with MAT rate as per the applicable Finance Act. The petitioner shall be entitled to recover the shortfall, if any, in the annual fixed charges on account of Return on Equity due to change in applicable Minimum Alternate Tax in accordance with clause (5) of Regulation 15 of the 2009 regulations.

33. In view of the above and Para 30, the following amount of equity has been considered for calculation of return of equity:-

(₹ in lakh)

Description	Equity on DOCO 1.4.2010	Notional equity due to ACE for the period 2010-11	Average equity considered for tariff calculations for the period 2010-11	Total Equity	Notional equity due to ACE for the period 2011-12	Average equity considered for tariff calculations for the period 2011-12	Total Equity	Notional equity due to ACE for the period 2012-14	Total equity considered for tariff calculations for the period 2012-14
Combined Assets 1, 2 and 3	18538.29	1231.18	19153.88	19769.47	314.35	19926.64	20083.81	0.00	20083.81



INTEREST ON LOAN

34. 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."

35. 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 (a) above is applied on the notional average loan during the year to arrive at the interest on loan.

The methodology followed for the calculation of weighted average Rate of Interest in case of floating interest loans in Petition No. 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 1.4.2009/date of commercial operation. Any change



in rate of interest subsequent to 1.4.2009/ date of commercial operation will be considered at the time of truing up.

36. Based on the above, Interest on Loan has been worked out for the period 2009-14 as given hereunder:

	(₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	43258.37	46131.11	46864.59	46864.59
Cumulative Repayment up to Previous Year	1030.06	4404.56	7915.37	11453.88
Net Loan-Opening	42228.31	41726.55	38949.21	35410.70
Addition due to Additional Capitalization	2872.74	733.47	0.00	0.00
Repayment during the year	3374.50	3510.82	3538.51	3538.51
Net Loan-Closing	41726.55	38949.21	35410.70	31872.19
Average Loan	41977.43	40337.88	37179.96	33641.45
Weighted Average Rate of Interest on Loan	2.8398%	2.8390%	2.8330%	2.8271%
Interest	1192.07	1145.18	1053.32	951.06

37. The detailed calculations in support of the weighted average rates of interest on loan have been computed as per the Annexure to this order.

DEPRECIATION

38. Regulation 17 of the 2009 regulations provides for computation of depreciation in the following manner, namely:

" 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.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(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."

39. The Notional date of commercial operation for all three assets covered in the petition is 1.0.2010, and accordingly, will complete 12 years beyond 2013-14 and therefore, depreciation during the tariff block has been calculated as per straight line method and rates as specified in Appendix-III of the 2009 regulations.

40. For the period 1.4.2009 to 31.3.2014 the depreciation of the transmission assets has been worked out as given hereunder:

(₹ in lakh)					
Details of Depreciation	Up to DOCO	2010-11	2011-12	2012-13	2013-14
Opening Gross block	61796.66	61796.66	65900.58	66948.40	66948.40
Addition during 2009-14 due to projected Additional Capital Expenditure		4103.92	1047.82	0.00	0.00
Gross block as on 31.3.2009		65900.58	66948.40	66948.40	66948.40
Average gross block		63848.62	66424.49	66948.40	66948.40
Rate of Depreciation		5.2852%	5.2854%	5.2854%	5.2854%
Depreciable Value 90%		57463.76	59782.04	60253.56	60253.56
Remaining Depreciable Value		56433.70	55377.48	52338.19	48799.68
Depreciation		3374.50	3510.82	3538.51	3538.51
Cumulative Depreciation/ Advance against Depreciation		0.00	0.00	0.00	0.00
Addition due to Additional Capitalisation		0.00	0.00	0.00	0.00
Cumulative Depreciation/ Advance against Depreciation		4404.56	7915.37	11453.88	14992.39



OPERATION & MAINTENANCE EXPENSES

41. In accordance with clause (g) of Regulation 19 of the 2009 regulations, the following norms have been specified for operation and maintenance expenses:

Transmission line/Bays:	Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV D/C (twin conductor transmission) line (₹ in lakh/per kms.)	0.627	0.663	0.701	0.741	0.783
400 kV S/C (twin conductor transmission) line (₹ in lakh/per kms.)	0.358	0.378	0.400	0.423	0.447
400 KV bay (₹ lakh/bay)	52.40	55.40	58.57	61.92	65.46

42. As per the existing norms of 2009 regulations allowable O&M expenses for the assets covered in this petition are as given overleaf:

	(₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
400 KV Double Circuit, twin conductor transmission line {635.27 207.158+350.525+76.485+1.10 2) Kms.}	421.18	445.32	470.74	497.42
400 KV Single Circuit, twin conductor transmission line {4.242 (1.25+2.352+0.640) Kms.,}	1.60	1.70	1.79	1.90
400 KV bays (10 bays)	554.00	585.70	619.20	654.60
Total	976.79	1032.72	1091.72	1153.91

43. The petitioner intends to 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%. UPPCL and PSPCL have opposed the claim of the petitioner. It is clarified that any application filed by the petitioner for revision of O & M norms on account of pay revision will be dealt with in accordance with law.



INTEREST ON WORKING CAPITAL

44. 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 annual transmission charges. The petitioner has claimed the receivables on the basis two months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis two 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.

(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 one month of O&M expenses of the respective year which has been considered in 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 interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 11.75% based on SBI PLR as on 1.4.2010, which is in accordance with the 2009 regulations and has been allowed.

45. The necessary computations in support of interest on working capital as under:

	(₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Maintenance Spares	146.52	154.91	163.76	173.09
O & M expenses	81.40	86.06	90.98	96.16
Receivables	1516.10	1564.03	1568.10	1561.58
Total	1744.01	1805.00	1822.83	1830.82
Rate of Interest	11.75%	11.75%	11.75%	11.75%
Interest	204.92	212.09	214.18	215.12

TRANSMISSION CHARGES

46. The transmission charges being allowed for the transmission asset are summarised overleaf:

	(₹ in lakh)			
	2010-11	2011-12	2012-13	2013-14
Depreciation	3374.50	3510.82	3538.51	3538.51
Interest on Loan	1192.07	1145.18	1053.32	951.06
Return on Equity	3348.29	3483.38	3510.85	3510.85
Interest on Working Capital	204.92	212.09	214.18	215.12
O & M Expenses	976.79	1032.72	1091.72	1153.91
Total	9096.57	9384.18	9408.58	9369.46



Application fee and the publication expenses

47. 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 on *pro rata* basis. The petitioner shall also be entitled for reimbursement of expenses in connection with publication of notices from the beneficiaries on *pro rata* basis.

Service Tax

48. The petitioner has prayed for reimbursement of service tax if it is subjected such tax in future. We have already decided in our order dated 23.9.2010 in Petition No. 62/2009 that the petitioner is exempted from service tax as per the extant policy of the Government of India. As regards the reimbursement of service tax if it is imposed on the petitioner in future, the prayer is premature at this stage and if any application is made by the petitioner in connection with service tax, the same will be dealt with in accordance with law.

Licence Fee

49. The petitioner has prayed for reimbursement of licence fee separately from the respondents. UPPCL in its reply has submitted that licence fee being the onus of licensee should not be passed over to the beneficiaries. In this connection it is clarified that the matter is



under consideration and decision as and when taken will be applicable in this case.

50. The transmission charges allowed shall be recovered on monthly basis in accordance with Regulation 23 and shall be shared by the respondent in accordance with Regulation 33 of the 2009 regulations up to 30.6.2011. With effect from 1.7.2011, 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 hereunder.

51. This order disposes of Petition No. 294/2010.

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					
					(₹ in lakh)
	Details of Loan	2010-11	2011-12	2012-13	2013-14
1	ADB III (Exchange Rate @ 55.51)				
	Gross loan opening	4762.70	4762.70	4762.70	4762.70
	Cumulative Repayment up to DOCO/previous year	71.92	226.23	396.26	583.91
	Net Loan-Opening	4690.79	4536.48	4366.45	4178.80
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	154.31	170.03	187.65	206.70
	Net Loan-Closing	4536.48	4366.45	4178.80	3972.10
	Average Loan	4613.63	4451.46	4272.62	4075.45
	Rate of Interest	2.715%	2.715%	2.715%	2.715%
	Interest	125.26	120.86	116.00	110.65
	Rep Schedule	Half Yearly Installments from 15.01.2010			
2	ADB III (Exchange Rate @ 45.67)				
	Gross loan opening	23310.42	23310.42	23310.42	23310.42
	Cumulative Repayment up to DOCO/previous year	351.99	1107.25	1939.43	2857.86
	Net Loan-Opening	22958.44	22203.18	21371.00	20452.57
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	755.26	832.18	918.43	1011.67
	Net Loan-Closing	22203.18	21371.00	20452.57	19440.89
	Average Loan	22580.81	21787.09	20911.78	19946.73
	Rate of Interest	2.715%	2.715%	2.715%	2.715%
	Interest	613.07	591.52	567.75	541.55
	Rep Schedule	Half Yearly Installments from 15.1.2010			
3	ADB III (Exchange Rate @ 49.29)				
	Gross loan opening	14037.79	14037.79	14037.79	14037.79
	Cumulative Repayment upto DOCO/previous year	211.97	666.80	1167.94	1721.03
	Net Loan-Opening	13825.82	13371.00	12869.85	12316.76
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	454.82	501.15	553.09	609.24
	Net Loan-Closing	13371.00	12869.85	12316.76	11707.52
	Average Loan	13598.41	13120.42	12593.30	12012.14
	Rate of Interest	2.715%	2.715%	2.715%	2.715%
	Interest	369.20	356.22	341.91	326.13
	Rep Schedule	Half Yearly Installments from 15.1.2010			
4	Bond XXVI				
	Gross loan opening	788.00	788.00	788.00	788.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00	65.67	131.33
	Net Loan-Opening	788.00	788.00	722.33	656.67
	Additions during the year	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	65.67	65.67	65.67
	Net Loan-Closing	788.00	722.33	656.67	591.00
	Average Loan	788.00	755.17	689.50	623.83
	Rate of Interest	9.30%	9.30%	9.30%	9.30%
	Interest	73.28	70.23	64.12	58.02
	Rep Schedule	12 Annual Installments from 07.03.2012			



Total Loan				
Gross loan opening	42898.92	42898.92	42898.92	42898.92
Cumulative Repayment up to DOCO/previous year	635.87	2000.27	3569.30	5294.13
Net Loan-Opening	42263.05	40898.65	39329.63	37604.79
Additions during the year	0.00	0.00	0.00	0.00
Repayment during the year	1364.39	1569.03	1724.84	1893.28
Net Loan-Closing	40898.65	39329.63	37604.79	35711.51
Average Loan	41580.85	40114.14	38467.21	36658.15
Weighted Average Rate of Interest	2.8398%	2.8390%	2.8330%	2.8271%
Interest	1180.81	1138.83	1089.79	1036.35

