CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 93/TT/2011

Coram: Shri S. Jayaraman, Member Shri V.S. Verma, Member Shri M. Deena Dayalan, Member

Date of Hearing: 6.3.2012

Date of Order: 7.9.2012

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 revised anticipated date of commercial operation (1.5.2011) to 31.3.2014 of 400 kV Bawa-Bahadurgarh-Hissar Line at Bhiwani sub-station under 765 kV system for central part of Northern Grid Part-III for tariff block 2009-14 period in Northern Region.

And

In the matter of:

Power Grid Corporation of India Ltd., GurgaonPetitioner

Vs

- 1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
- 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 18. M/s. Adani Power Limited, Ahmedabad

.....Respondents

The following were present:

- 1. Shri S.S. Raju, PGCIL
- 2. Shri Mukesh Khanna, PGCIL
- 3. Shri Rajeev Gupta, PGCIL
- 4. Shri Prashant Sharma, PGCIL
- 5. Shri M.M. Mondal, PGCIL
- 6. Shri R.B. Sharma, Advocate, BRPL
- 7. Shri Sanjay Srivastav, BRPL
- 8. Shri T.P.S. Bawa, PSPCL

<u>ORDER</u>

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of transmission tariff from anticipated date of commercial operation i.e. 1.5.2011 to 31.3.2014 of 400 kV Bawana-Bahadurgarh-Hissar line at Bhiwani sub-station under 765 kV system for Central Part of Northern Grid Part-III (hereinafter referred to as "transmission project") for tariff block 2009-14 period in Northern Region under Regulation 86 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2009 (hereinafter referred to as "2009 tariff regulations").

2. The administrative approval and expenditure sanction to the transmission project was accorded by Board of Directors of POWERGRID vide Memorandum: Ref.: C/CP/765 kV system in Northern Grid dated 3.11.2009 for `107512 lakh, including IDC of `7712 lakh at 3rd Quarter, 2009 price level.



3. The transmission project includes construction of following transmission line and sub-station:-

Transmission Lines:-

- (i) Meerut Bhiwani 765 kV S/C line -175 km.
- (ii) LILO of Bareilly Mandola 400 kV D/C Line at Meerut -103 km.
- LILO of both circuits of Bawana/Bahadurgarh- Hissar 400 kV D/C line at Bhiwani-15 km.

Sub Stations:-

- New 2X1000 MVA, 765/400 kV and 2X 500 MVA, 400/220 kV Bhiwani
 765/400/220 kV Substation.
- (ii) Extension of Meerut 765/400 kV sub-station.
- (iii) Extension of Mandola 400/220 kV sub- station.
- (iv) Extension of of Ballabhgarh 400/220 kV sub-station- Realignment works.

Reactive Compensation:-

Line Reactors

(i) Meerut – Bhiwani 765 kV S/C Line(240 MVAR switchable)

Bus Reactor

(ii) Bhiwani- 2X 240 MVAR

4. The details of asset covered in the instant petition and its date of commercial operation are given overleaf:-



Asset : Transmission Line: 1st LILO of 400 kV Bawana- Bahadurgarh- Hissar line at Bhiwani Sub-station	Date commercial operation	of
400 kV D/C twin conductor, 1st LILO of 400 kV Bawana- Bahadurgarh- Hissar line at Bhiwani Sub-station	1.9.2011	

5. The petitioner has initially claimed transmission tariff for the asset as per the anticipated date of commercial operation i.e. 1.5.2011. Later, vide affidavit dated 25.11.2011, the petitioner has submitted that the actual date of commercial operation was i.e. 1.9.2011. The petitioner has also submitted that Management Certificate and revised tariff forms of the transmission asset. Jd.VVNL, JVVNL and AVVNL have raised the issue of date of commercial operation in their replies. It is clarified that the actual date of commercial operation has been considered for the purpose of tariff determination.

6. The details of apportioned approved cost, capital expenditure incurred upto date of commercial operation and estimated additional capital expenditure claimed by the petitioner, are summarized below:-

					(` in lakh)
Asset	Apportioned approved	Actual cost claimed as on	Projected expenditure		Total estimated
	cost	commercial operation	Date of commercial operation to 31.3.2013	2012-13	completion cost
LILO of both circuits of Bawana/Bhadaurgarh- Hissar 400 kV D/C line at Bhiwani-15 km (herein after referred as "transmission asset")	1340.65	1297.83	123.25	33.62	1454.70

7. The petitioner has not claimed any spares in the instant petition. As total estimated completion cost exceeds the apportioned approved cost, the petitioner was directed to submit the RCE. The petitioner, vide affidavit dated 12.7.2011, has submitted that RCE of the project is under approval and the same would be submitted after approval. In the absence of the RCE the total capital cost of the project has been restricted to the apportioned approved cost i.e. `1340.65 lakh and shall be re-examined after the submission of RCE.

		(` in lakh)
Particulars	2011-12	2012-13	2013-14
Depreciation	41.87	75.92	76.81
Interest on Loan	47.56	81.17	75.52
Return on equity	42.93	77.83	78.84
Interest on Working Capital	2.90	5.17	5.11
O & M Expenses	5.45	9.87	10.43
Total	140.71	249.96	246.61

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

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

	-	(` in lakh)		
Particulars	2011-12	2012-13	2013-14	
Maintenance Spares	1.40	1.48	1.56	
O & M expenses	0.78	0.82	0.87	
Receivables	40.20	41.66	41.10	
Total	42.38	43.96	43.53	
Interest	2.90	5.17	5.11	
Rate of Interest	11.75%	11.75%	11.75%	

10. 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 have been filed by Respondent No. 2- Ajmer Vidyut Vitran Nigam Limited, Respondent No.3- Jaipur Vidyut Vitran Nigam Limited, Respondent No. 4-Jodhpur Vidyut Vitran Nigam limited, Respondent No.6- Punjab State Electricity Board (PSPCL), Respondent No.9-Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 12-BSES Rajdhani Power Limited (BRPL) and Respondent No. 18-Adani Power Ltd. (APL). Respondents have raised issues like additional return on equity, service tax, licence fee, publication fee and actual date of commercial operation etc. The petitioner has filed rejoinder to replies filed by UPPCL, BRPL and Adani Power Limited. The objections raised by the respondents and the clarifications given by the petitioner have been dealt in relevant paragraphs of this order.

11. Having heard the representatives of the parties and perused the material on records, we proceed to dispose of the petition.

12. The respondent, BSES Rajdhani Power Ltd. (BRPL) in its reply, vide affidavit dated 5.3.2012, and during the hearing on 6.3.2012, has submitted that the present asset is not complete as per the approved scheme. The present asset is a temporary arrangement and it may last for a year. There is no provision in the 2009 Tariff Regulations to determine the tariff of the temporary assets created purely to meet the exigencies and hence the petitioner may be directed to approach the Commission as and when the asset has been completed in accordance with the Investment Approval. In response, the petitioner in its rejoinder has clarified that the present asset has been executed as per the scope of the approved scheme with the exception that instead of



terminating the line at Bhiwani sub-station, it is temporarily connected directly to APL's transmission line. The present arrangement was discussed and agreed in NRPC meeting.

13. During the hearing on 6.3.2012, the petitioner was directed to submit the provisions in the Regulations under which the present interim arrangement is made, which allows flow of ISTS power other than that from the APL's generating station through the dedicated transmission line of Adani Power Ltd. (APL), which is not a transmission licensee. In response, the petitioner has submitted, vide affidavit dated 20.4.2012, that the interim arrangement is effectively Loop in Loop out of existing 400kV line Bahdurgarh-Bhiwani (BBMB) at Mohindergarh HVDC Bipole sub-station for providing connectivity. LTOA is not applicable with this connectivity, as this is an interim arrangement. In the interim arrangement there is no transmission line of APL of dedicated nature. Interim arrangement has been carried out for connectivity, ahead of commissioning of Bhiwani 765/400 kV sub-station. After the commissioning of Bhiwani 765/400 kV sub-station with proposed 765 kV and 400 kV planned interconnections, adequate margin shall exist for transfer of 342 MW of power from Mohindergarh sub-station of APL and accordingly LTOA shall be applicable. It has been further submitted that in a similar case the Commission has approved the transmission tariff, vide order dated 24.2.2012 in Petition No.30/TT/2011.

14. The respondent, UPPCL in its reply has submitted that the burden of IDC from 1.3.2011 to 1.5.2011 should be borne by APL. The petitioner in its rejoinder, vide affidavit dated 26.4.2012 has clarified that there is no time overrun in commissioning



of the subject asset. The transmission charges for the asset covered under this scheme shall be borne by APL till it becomes part of the regional system as agreed to in the transmission agreement dated 22.6.2011.

15. The respondent, APL in its reply vide affidavit dated 22.3.2012, has submitted that the tariff is to be determined based on actual date of commercial operation instead of anticipated date of commercial operation. The respondent has not commenced transmission of power through LILO arrangement since, HVDC line between Mundra-Mohindergarh is yet to be commissioned pending Ministry of Environment & Forests clearance. Other beneficiaries connected with ISTS have been continuously using the LILO line since its commissioning, which is clear from the details available regarding power flow on the meters installed at Mohindergarh substation of APL.

16. Petitioner in its rejoinder, vide affidavit dated 1.5.2012, has clarified that as per the approved scheme, LILO of Bahdurgarh-Bhiwani (BBMB) is to be carried out at Bhiwani (POWERGRID) sub-station as ISTS scheme. Long Term Open Access for 342 MW was granted to APL for injecting power at Bhiwani sub-station for which 400 kV D/C line from Mohindergarh HVDC bipole to Bhiwani sub-station dedicated line is to be constructed by APL. At the time of grant of LTOA, it was known that Bhiwani sub-station would come up later and therefore an interim arrangement was also agreed. Regarding usage of LILO line by other beneficiaries, the petitioner has submitted that prior to LILO of Bahadurgarh-Bhiwani (BBMB) 400 kV line at Mahendergarh (Adani), as a temporary arrangement the Bahadurgarh-Bhiwani

(BBMB) 400 kV line was carrying power for the use of beneficiaries. The temporary LILO of this line was carried out only for providing temporary connectivity to APL and as a result power is flowing through LILO portion. The temporary arrangement is only for APL and not for the use of other beneficiaries and the beneficiaries were using this line prior to this LILO. As this temporary LILO arrangement was meant for APL, they had agreed to pay its transmission charges till the LILO portion (implemented by petitioner) becomes part of regional transmission system. The transmission charges for the asset covered under this scheme shall be borne by APL till it becomes part of the regional system.

- 17. The petitioner vide its affidavit, dated 1.5. 2012 has submitted the following:-
 - (a) In the 27th Standing Committee meeting held on 30th May, 2009 it was decided that petitioner should take up the works on their LILO line on priority and directly connect it to Mohindergarh- Bhiwani line of APL so as to provide connectivity to Mohindergarh HVDC terminal of APL. Subsequently, when petitioner's Bhiwani sub-station gets completed, the arrangement as per the planned system shall be implemented. The same was also discussed and agreed in the 13th NRPC meeting held on 26th and 27th June, 2009.
 - (b) As per section 38 of the Electricity Act, 2003, the petitioner as CTU has to undertake transmission of electricity through inter-State transmission system for smooth flow of electricity from generators to load centres. Accordingly, the



petitioner had taken up on priority the LILO Bahadurgarh – Hissar line for providing connectivity to APL.

- (c) APL has also signed transmission agreement with the petitioner on 22.6 2011 and agreed to bear the full transmission charges as determined by the Commission for LILO portion from its commissioning till the commissioning of Bhiwani sub-station, after which it becomes the regional charges.
- (d) This interim arrangement is for providing connectivity and LTOA is not applicable with this connectivity. In this interim arrangement there is no transmission line of APL of dedicated nature for power transfer. After the commissioning of Bhiwani 765/400 kV sub-station with proposed 765 kV and 400 kV planned interconnections, adequate margin would exist for transfer of 342 MW of power from Mohindergarh sub-station of APL and accordingly, LTOA shall be applicable.

18. It is observed that the transmission asset covered in the petition was commissioned by the petitioner in accordance with the decision taken in the meeting of Standing Committee for Power System Planning in Northern Region, in which beneficiaries are members. It is also noted that the present arrangement is only an interim arrangement and the subject asset would be finally be part of the regional asset as per the project scope. The transmission tariff for this interim arrangement shall be borne by APL. The issue of delay, if any, shall be considered after commissioning of the LILO line by the petitioner.

CAPITAL COST

19. As regards capital cost, Regulation 7(1) (a) of the 2009 Tariff 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."

20. Capital cost of `1297.83 lakh as on date the of commercial operation has been considered for the purpose of tariff calculation as per revised Management certificate dated 29.9.2011.

21. The respondent, PSPCL in its reply dated 1.8.2011, has submitted that the tariff may be decided for LILO portion by excluding the cost of sub-station work such as circuit breakers as per original apportionment of cost. It is clarified that the capital cost of the project is restricted to the apportioned approved cost.

PROJECTED ADDITIONAL CAPITAL EXPENDITURE

22. As per Regulation 9 (1) of 2009 Tariff 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:

Undischarged liabilities; XXX XXX XXX XXX XXX XXX"



23. As per 2009 Tariff Regulations,

"cut-off date means 31st 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 31st March of the year closing after 3 years of the year of commercial operation".

Therefore, cut-off date for the above mentioned assets is 31.3.2013.

24. Petitioner has claimed additional capital expenditure of `123.25 lakh, and `33.62 lakh for the year 2011-12 (date of commercial operation to 31.3.2012) and 2012-13 respectively. However, estimated completion cost exceeds the apportioned approved cost and the petitioner has not submitted RCE. Accordingly, additional capital expenditure amounting to `42.82 lakh, out of `123.25 lakh during 2011-2012 period, has been considered for the purpose of tariff calculation and no further additional capital expenditure has been allowed.

DEBT- EQUITY RATIO

25. Regulation 12 of the 2009 Tariff 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."

26. The details of the opening debt-equity of transmission asset considered for the purpose of tariff calculation is given overleaf:-

				(` in lakh)
			Capital cost i.e. 1.9	as on DOCO 9.2011
Particulars	Amount	%	Amount	%
Debt	938.45	70.00	908.50	70.00
Equity	402.20	30.00	389.33	30.00
Total	1340.65	100.00	1297.83	100.00

27. Details of debt-equity ratio of the transmission assets as on 31.3.2014 are as

follows:-

	(`in lakh)
Particulars	Amount	%
Debt	938.47	70.00
Equity	402.18	30.00
Total	1340.65	100.00

RETURN ON EQUITY

28. Regulation 15 of the 2009 Tariff 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"

29. The petitioner has claimed additional return on equity of 0.5% in accordance with Regulation 15 of the 2009 Tariff Regulations. The petitioner has submitted that as per Appendix-II of 2009 Tariff Regulations, the qualifying time schedule for 400 kV D/C twin conductor line is 28 months. Accordingly, the 1st LILO of 400 kV Bawana-Bahadurgarh- Hissar Line at Bhiwani Sub-station (anticipated to be commissioned on 1.5.2011) under the scope of "765 kV System for Central Part of Northern Grid- Part-III" qualifies for additional return on equity, as it is anticipated to be completed within 28 months from the date of investment approval i.e.3.11.2009.

30. Adani Power Limited, vide its affidavit dated 22.3.2012, has submitted that actual date of commercial operation of the asset was 18.8.2011 and the same may be considered for tariff. The petitioner in its rejoinder, dated 26.4.2012 has submitted that the date of commercial operation of the asset was 1.9. 2011.

31. In response to Commission's query, dated 26.5.2011 and 26.8.2011, as to whether the transmission assets under the interim scheme would be entirely used in the final arrangement, the petitioner, vide affidavit dated 26.9.2011, has submitted

that almost complete portion of the present LILO transmission line shall be utilized in the final arrangement. It has also been submitted that as per the original scheme the LILO covered in the present petition is to be terminated at Bhiwani Sub-station and since Bhiwani Sub-station is not ready the LILO line is presently connected directly to Mohindergarh-Bhiwani line of APL. Further, vide affidavit dated 20.4.2012, it has been submitted that the entire line section constructed for interim arrangement shall be utilized for final arrangement and no part would remain unutilized. The petitioner has also submitted that the norms for additional return on equity are applicable for the LILO line also as the nature of LILO line is similar to any other new transmission line.

32. The respondent Jd.VVNL, JVVNL, AVVNL have submitted that the additional burden of 0.5% additional return on equity has to be borne by APL or HVPNL, who are being benefited. The additional burden of 0.5% return should be borne by APL or HVPNL even after it becomes part of regional transmission system. The respondent, PSPCL has submitted that the additional return on equity is not admissible because the project is actually delayed and due to delay in construction of new Bhiwani Substation the interim arrangement has been made. PSPCL has also been submitted that since, the LILO of transmission line is commissioned without breakers, the transmission line work is incomplete and therefore, the claim of additional return on equity is not acceptable. The respondent, UPPCL vide its affidavit dated 1.3.2012 has submitted that additional return on equity is not admissible as the whole project is not completed and the explanation of the petitioner that additional return on equity may be given on each element of a project is logically misplaced.



33. The petitioner in its rejoinder, dated 26.4.2012, has clarified that Para 2 (c) of the Appendix-II to the 2009 Tariff Regulations contains qualifying time schedule in months for different elements of the project. Different elements would be eligible for additional return on equity if it is completed within the eligible time line. The eligible time line in case of a scheme having combination of various elements would be the timeline having maximum time period. Even if part of the project is completed within the eligible time line, the beneficiaries would be benefited by the reduced IDC & IEDC components of the project cost and Utility would also be incentivized for early completion of the given assets. It has been further submitted that the though the investment approval is for whole the project, the tariff petition is approved for the individual element, the additional return on equity is being claimed for those assets which are commissioned only within the qualifying time.

34. The present asset is only an interim arrangement, which is a part of the LILO of Bawana/Bahadurgarh-Hissar 400 kV D/C line at Bhiwani. Moreover, the whole "765 kV System for Central Part of Northern Grid – Part-III" project under which the present asset is commissioned has not been completed. Therefore, the additional return on equity for the present asset is not admissible and hence the petitioner's prayer for additional return on equity is rejected.

35. The petitioner has prayed to allow grossing up of base rate of return with the applicable base rate as per the Finance Act for the relevant year and direct settlement of tax liability between generating company/transmission licensee and the beneficiaries/long term transmission customers on year to year basis.

36. The petitioner's prayer to allow grossing up the base rate of return on equity based on tax rates viz., MAT, surcharge, any other cess, charges, levies etc., as per relevant Finance Act, shall be settled in accordance with the provisions of Regulation 15 of 2009 regulations.

37. Accordingly, the following amount of equity has been considered for calculation of return of equity:-

				(` in lakh)
Equity on date of commercial operation		considered for	Notional equity due to additional capital expenditure for 2012-14	Total equity considered for tariff calculations for the period 2012-14
389.33	12.85	395.75	0.00	402.18

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

		ſ	in lakh)
Particulars	2011-12 (Pro-rata for 7 months)	2012-13	2013-14
Opening Equity	389.33	402.18	402.18
Addition due to additional capital expenditure	12.85	0.00	0.00
Closing Equity	402.18	402.18	402.18
Average Equity	395.75	402.18	402.18
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.33%	11.33%	11.33%
Rate of Return on Equity (Pre-Tax)	17.481%	17.481%	17.481%
Return on Equity (Pre-Tax)	40.36	70.30	70.30

INTEREST ON LOAN

39. Regulation 16 of the 2009 tariff 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."



40. The respondent, UPPCL has submitted that there is no case for the petitioner to pray for floating rate of interest which entails the avoidable element of risk of increase in the rate of interest to which consumer may be exposed. The petitioner in its rejoinder has clarified that the change in interest rate may increase or decrease during the tariff period and hence it would be fair to allow annual adjustment of difference in interest rate.

- 41. In these calculations, interest on loan has been worked out as detailed under:-
 - 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 shall be deemed to be equal to the depreciation allowed for that period;
 - (iii) 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 and
 - (iv) 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.

42. Detailed calculations of the weighted revised average rate of interest are given in Annexure to this order. 43. Details of the interest on loan worked on the above basis are given below:-

		(` ii	n lakh)
Particulars	2011-12 (Pro-rata for 7 months)	2012-13	2013-14
Gross Normative Loan	908.50	938.47	938.47
Cumulative Repayment upto Previous Year	0.00	40.63	111.42
Net Loan-Opening	908.50	897.84	827.06
Addition due to Additional Capital expenditure	29.97	0.00	0.00
Repayment during the year	40.63	70.79	70.09
Net Loan-Closing	897.84	827.06	756.27
Average Loan	903.17	862.45	791.66
Weighted Average Rate of Interest on Loan	8.7594%	8.7594%	8.7594%
Interest	46.15	75.55	69.35

DEPRECIATION

44. Regulation 17 (4) of the 2009 tariff 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".

45. The transmission assets in the instant petition were put under commercial

operation on 1.9.2011 and accordingly will complete 12 years beyond 2013-14 and

thus depreciation has been calculated annually based on straight line method and at

rates specified in Appendix-III of 2009 Tariff Regulations.



			(` in lakh)
Particulars	2011-12 (Pro-rata for 7 months)	2012-13	2013-14
Opening Gross Block (as on date of commercial operation)	1297.83	1340.65	1340.65
Addition during 2009-14 due to Projected Additional Capital expenditure	42.82	0.00	0.00
Closing Gross Block	1340.65	1340.65	1340.65
Average Gross Block	1319.24	1340.65	1340.65
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	1187.323	1206.59	1206.59
Remaining Depreciable Value	1187.32	1165.95	1095.17
Depreciation	40.63	70.79	70.79

46. Details of the depreciation have been worked out as under:-

OPERATION & MAINTENANCE EXPENSES

47. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes the norms for O&M expenses based on the type of sub-station and line. The norms for the assets covered in this petition are as follows:-

Element	2011-12 2012-13		2013-14	
400 kV D/C twin conductor, T/Line (`lakh / kms)	0.701	0.741	0.783	

48. As per the existing norms of 2009 regulations, allowable O&M expenses for the asset covered in this petition are given as under:-

		(`in lakh)
Transmission Asset	2011-12 (Pro-rata for 7 months)	2012-13	2013-14
13.325 km, 400kV D/C twin conductor, 1st LILO of 400 kV Bawana-Bahadurgarh-Hissar line at Bhiwani Sub-station	5.45	9.87	10.43

49. The petitioner has submitted that the O&M expenses 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 expenses for tariff period 2009-14. The petitioner has also submitted that it would approach Commission for suitable revision in the norms for O&M expenses in case the impact of wage hike w.e.f 1.1.2007 is more than 50%.

50. The respondent Jd.VVNL, AVVNL, JVVNL and UPPCL submitted that the O&M should be allowed only as per existing norms. UPPCL has submitted that the request of petitioner for increased O&M expenses due to revision in employees pay scale should not be accepted for the reason that once the normative parameters have been defined, the question of considering actual does not arise, and in case actuals are to be considered, the whole tariff need to be based on actuals. The petitioner in its rejoinder clarified that the total impact of wage hike may be more as compared to the compensation provided in the O&M norms.

51. It is clarified that the petitioner's request for revision of norms of O&M expenses because of the wage hike is being considered by the Commission and any order in this connection will also be applicable to the instant petition. It is further clarified that O&M expenses are allowed in the instant petition as per existing norms.

INTEREST ON WORKING CAPITAL

52. As per the 2009 tariff 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, receivables will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months transmission charges.

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

(iii) O & M expenses: Regulation 18(1) (c) (iii) of the 2009 regulations provides for operation and maintenance expenses for one month of the recommended O & M expenses.

(iv) Rate of interest on working capital: In accordance with the 2009 Tariff Regulations, the SBI Base Rate (8.25%) Plus 350Bps i.e. 11.75% has been considered as the rate of interest on working capital.



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

		(` in lakh)	
Particulars	2011- 12 (Pro-rata for 7 months)	2012-13	2013-14
Maintenance Spares	1.40	1.48	1.56
O & M expenses	0.78	0.82	0.87
Receivables	38.68	38.55	37.59
Total	40.86	40.85	40.03
Interest @ 11.75%	2.80	4.80	4.70

TRANSMISSION CHARGES

54. The transmission charges being allowed for the transmission lines are summarized below:-

			(` in lakh)
Particulars	2011-12 (Pro-rata for 7 months)	2012-13	2013-14
Depreciation	40.63	70.79	70.79
Interest on Loan	46.15	75.55	69.35
Return on equity	40.36	70.30	70.30
Interest on Working Capital	2.80	4.80	4.70
O & M Expenses	5.45	9.87	10.43
Total	135.39	231.31	225.57

FILING FEE AND THE PUBLICATION EXPENSES

55. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The respondent, UPPCL has submitted that the filing fee shall be governed as per the Commission's order. The petitioner, vide affidavit dated 26.4.2012 has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of 2009 Tariff Regulations. 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

56. The petitioner has submitted that in O&M norms for tariff block 2009-14 the cost associated with license fees had not been captured and the license fee may be allowed to be recovered separately from the respondents.

57. The respondent, UPPCL has submitted that the petitioner's request for reimbursement for licence fee should be rejected as license fee is the eligibility fee of a licence holder and it is the onus of the petitioner. The petitioner has clarified that the licence fee is a new component of cost and has become incidental to the petitioner only from 2008-09. The petitioner's prayer for licence fee shall be dealt with in accordance with our order dated 25.10.2011 in Petition No. 21/2011 and 22/2011.

SERVICE TAX

58. 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. UPPCL has objected to levying of service tax on the beneficiaries. We consider the prayer of the petitioner pre-mature and accordingly this prayer is rejected.

SHARING OF TRANSMISSION CHARGES

59. The billing, collection & disbursement of the transmission charges shall be governed by the provision of Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2010 as amended from time to time.

60. This order disposes of Petition No.93/TT/2011.

sd/-(M. Deena Dayalan) Member sd/-(V.S. Verma) Member sd/-(S. Jayaraman) Member



<u>Annexure</u>

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN

				(` in lakh)
	Details of Loan	2011-12	2012-13	2013-14
1	Bond XXXV			
	Gross loan opening	78.50	78.50	78.50
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	78.50	78.50	78.50
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	78.50	78.50	78.50
	Average Loan	78.50	78.50	78.50
	Rate of Interest	9.64%	9.64%	9.64%
	Interest	7.57	7.57	7.57
	Rep Schedule	12 annual inst	allments from 31	.05.2015
2	Bond XXXIII			
	Gross loan opening	680.00	680.00	680.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	680.00	680.00	680.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	680.00	680.00	680.00
	Average Loan	680.00	680.00	680.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	58.75	58.75	58.75
	Rep Schedule	12 annual installments from 08.07.2014		3.07.2014
3	Bond XXXIV			
	Gross loan opening	150.00	150.00	150.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	150.00	150.00	150.00
	Additions during the year	0.00	0.00	0.00

Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	150.00	150.00	150.00
Average Loan	150.00	150.00	150.00
Rate of Interest	8.84%	8.84%	8.84%
Interest	13.26	13.26	13.26
Rep Schedule	12 annual installments from 21.10.2014		
Total Loan			
Gross loan opening	908.50	908.50	908.50
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	908.50	908.50	908.50
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	0.00
Net Loan-Closing	908.50	908.50	908.50
Average Loan	908.50	908.50	908.50
Rate of Interest	8.7594%	8.7594%	8.7594%
Interest	79.58	79.58	79.58

