

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 92/TT/2011**

**Coram:**

**Dr. Pramod Deo, Chairperson  
Shri S. Jayaraman, Member  
Shri M. Deena Dayalan, Member**

**Date of Hearing: 16.02.2012**

**Date of Order : 16.11.2012**

**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 of 400 kV D/C TL from GIS pooling Station Chamba- Jalandhar, 220 kV D/C TL from GIS pooling station Chamba-Chamera III HEP and Jalandhar S/S Extension under Transmission System associated with Chamera –III HEP for tariff block 2009-2014 period in Northern Region

**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 Electricity Board, Patiala
7. Haryana Vidyut Prasaran Nigam Ltd, 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 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
18. Lanco Green Power Pvt. Ltd, Hyderabad
19. PTC India Ltd, New Delhi

... Respondents

**The following were present:**

1. Shri. Rajeev Gupta, PGCIL
2. Shri S S Raju, PGCIL
3. Shri R B Sharma, Advocate, BSES
4. Shri Sanjay Srivastav, BSES
5. Shri Padamjit Singh, PSPCL
6. Shri Tej Pal Singh Bawa, PSPCL

**ORDER**

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of transmission tariff of 400 kV D/C Transmission Line from GIS pooling station Chamba- Jalandhar, 220 kV D/C Transmission Line from GIS pooling station Chamba– Chamera III HEP and Jalandhar Sub-station Extension under Transmission System associated with Chamera –III HEP (hereinafter referred to as “the transmission system) for tariff block 2009-2014 period in Northern Region under Regulation 86 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as “the 2009 Tariff Regulations”).

2. Administrative approval and expenditure sanction to the transmission system was accorded by Board of Directors of PGCIL vide C/CP/Chamera –III HEP T.S. dated 28.4.2008 for ₹29737 lakh including IDC of ₹2323 lakh based on 1<sup>st</sup> Quarter, 2008 price level. PGCIL has submitted that Revised cost estimates (RCE) of the project is under approval.

3. The scope of work covered under the project includes following Transmission lines and Sub-stations:-

Transmission Lines

- (i) Chamera-III HEP – Pooling Station near Chamera-II HEP 220 kV D/C Line (Line would be with twin moose conductor adopting tower design of 400 kV D/C Line),
- (ii) Pooling Station near Chamera-II HEP–Jalandhar 400 kV D/C Line.

Sub Station

- (i) Extension of Jalandhar Sub-Station.

4. The asset covered in the instant petition is 220 kV D/C twin conductor Chamera Pooling Station (Chamba)- chamera-III Transmission Line (hereinafter referred to as "the transmission asset").

5. Provisional tariff in respect of the assets covered under the present project from anticipated date of commercial operation i.e. 1.7.2011 to 31.3.2014, was approved by the Commission vide its order dated 30.6.2011. This was subject to adjustment as per Regulation 5 (4) of the 2009 Tariff Regulations.

6. PGCIL has submitted vide affidavit dated 30.12.2011 that only one asset of the transmission system, i.e., 220 kV D/C transmission line from GIS pooling station Chamba-Chamera-III HEP, has been declared under commercial operation on 1.11.2011. PGCIL has also submitted the revised

management certificate alongwith revised tariff calculations for 220 kV D/C transmission line from GIS pooling station Chamba-Chamera-III HEP, and requested to determine transmission tariff for the same.

7. Regulations 4 and 5 of the 2009 Tariff Regulations provide as under:-

"4. **Tariff determination.** (1) Tariff in respect of a generating station may be determined for the whole of the generating station or a stage or unit or block of the generating station, and tariff for the transmission system may be determined for the whole of the transmission system or the transmission line or sub-station.

(2) For the purpose of determination of tariff, the capital cost of the project may be broken up into stages and distinct units or blocks, transmission lines and sub-systems forming part of the project, if required.

8. In view of the provision in Regulation 4 of the 2009 Tariff Regulations, the tariff for the transmission system may be determined for the whole of the transmission system or the transmission line or sub-station. We proceed to determine the final tariff of 220 kV D/C transmission line from GIS pooling station Chamba-Chamera-III HEP.

9. The transmission asset has been commissioned on 1.11.2011. The details of apportioned approved cost, capital expenditure as on date of commercial operation and the additional capital expenditure projected to be incurred from date of commercial operation to 31.3.2013 for the asset, are as under:-

Apportioned approved cost	Actual cost incurred as on date of commercial operation	Projected expenditure		Total estimated completion cost
		2011-12	2012-13	
3815.08	3266.14	297.31	208.50	3771.94

10. The petitioner has not claimed any initial spares in the instant petition.

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

(₹ in lakh)

	2011-12 (Pro- rata)	2012-13	2013-14
Depreciation	75.13	193.65	199.16
Interest on Loan	87.66	214.15	203.06
Return on equity	74.62	192.34	197.81
Interest on Working Capital	4.95	12.52	12.55
O & M Expenses	4.38	11.10	11.73
<b>Total</b>	<b>246.74</b>	<b>623.76</b>	<b>624.31</b>

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

(₹ in lakh)

	2011-12 (Pro- rata)	2012-13	2013-14
Maintenance Spares	1.58	1.66	1.76
O & M expenses	0.88	0.93	0.98
Receivables	98.70	103.96	104.05
<b>Total</b>	<b>101.16</b>	<b>106.55</b>	<b>106.79</b>
Rate of Interest	11.75%	11.75%	11.75%
<b>Interest</b>	<b>4.95</b>	<b>12.52</b>	<b>12.55</b>

13. 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. Ajmer Vidyut Vitaran Nigam Ltd. (AVVNL), and Jodhpur Vidyut Vitaran Nigam Ltd, (JdVVNL), have filed their respective replies vide affidavits dated 26.5.2011. Jaipur Vidyut Vitaran Nigam Ltd, (JVVNL), has filed its reply vide affidavit dated 30.5.2011. Punjab State Power Corporation Ltd. (PSPCL) has filed its reply vide affidavit dated 5.8.2011. Uttar Pradesh Power Corporation Ltd. (UPPCL) has filed its reply vide affidavit dated 4.2.2012. BSES Rajdhani Power Ltd (BRPL) has filed its reply vide

affidavit dated 15.2.2012. In these affidavits the respondents have raised the issues of time over-run, cost over-run, filing fee and publication expenses, licence fee, service tax, and the sharing of transmission charges. The objections have been dealt with in relevant paragraphs of this order.

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

### **Capital cost**

15. As regards the capital cost, Regulation 7 (1) of the 2009 Tariff Regulations provides as follows:-

“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.”

16. The petitioner has claimed capital cost of ₹3266.14 lakh as on date of commercial operation i.e. 1.11.2011 vide management certificate dated 10.12.2011. Capital cost of ₹3206.24 lakh excluding IDC and IEDC has been considered as on date of commercial operation for the purpose of calculation of tariff.

### **Time over-run**

17. As per investment approval, the transmission system was to be commissioned within 39 months from the date of investment approval. The date of investment approval being 28.4.2008, the scheduled completion works

out to 27.7.2011, i.e. 1.8.2011. As against this, the transmission system was put under commercial operation on 1.11.2011 after a delay of 3 months.

18. PGCIL in its affidavit dated 27.6.2012 has submitted that the line was ready for charging in August 2011, but could not be charged due to non-readiness of 400 kV GIS bay at Chamera-III, which was executed by NHPC on deposit basis. The 400 kV GIS bay at Chamera-III was ready in October 2011 and the GIS pooling station along with 220 kV D/C transmission line was charged and declared under commercial operation on 1.11.2011. PGCIL has also enclosed copy of Indemnification Agreement it signed with NHPC, PGCIL requested to condone the delay as it was beyond its control.

19. UPPCL, Respondent No. 9, in its reply vide affidavit dated 4.2.2012, has requested that PGCIL may be asked to furnish the reasons for delay. PSPCL, Respondent No. 6, during the hearing of the petition on 16.2.2012, submitted that IDC and IEDC for the period of delay should be disallowed. It is seen that no justification has been provided by the petitioner for the delay caused by NHPC. The delay in work of bays executed by NHPC is an issue of bilateral nature, between PGCIL and NHPC. The work has been executed by NHPC on deposit basis. Accordingly there is no justification for passing on the consequences of this delay in form of IDC and IEDC to the beneficiaries.

20. The transmission system was to be commissioned within 39 months from the date of investment approval, i.e. by 1.8.2011. Petitioner has completed only one asset, i.e., 220 kV D/C Chamba- Chamera- III

Transmission Line (14.98 Km), on 1.11.2011. Thus there was delay of 3 months.

### **Cost over-run**

21. PGCIL has submitted, vide affidavit dated 22.6.2011, that the total estimated completion cost is ₹33597.89 lakh against the apportioned approved cost of ₹29736.51 lakh. PGCIL has attributed this variation in cost of ₹3861.38 lakh (13%) to difference in FR estimated rates and the actual awarded rates and difference in expenditure towards forest clearance.

22. PSPCL, UPPCL, and BRPL have raised the issue of cost variation under the heads, "Preliminary investigation", "Tower Steel", "Earthwire", "Hardware fittings", "Erection, stringing", "Control room and office building", "Foundation for structures".

23. PGCIL has submitted, vide affidavit dated 22.6.2011, that the variation in cost of Preliminary Investigation (227.25%) is due to difference in estimated and actual expenditure towards forest approval. PGCIL has further submitted that in FR the total area of forest was considered as 82.8 Ha whereas actual turned out to 178.63 Ha, which resulted in increase in cost towards this element from ₹836.28 to ₹2835.60 lakh. The cost of Tower Steel has increased due to higher quantum and higher rates of award through competitive bidding plus PV. PGCIL has further submitted, vide affidavit dated 30.9.2011, that FR/ Investment approval is based on walkover survey in which survey team generally traverse along the route physically without aid of survey instruments and without involvement of other departments such as



Forest, Revenue and other local bodies. During walkover survey, it becomes difficult to assess actual forest area due to no clear-cut demarcation of Forests, Reserved Forest, Social Forest, and Private Forests etc. particularly in hilly areas. Hence, there are chances of variation in assessment. However, all such ambiguities are taken care of during detailed survey of a Transmission Line. In detailed survey, the teams from Forest Department, Revenue Department and other local bodies are involved for correct demarcation of different areas. Further, it was submitted that there is no change in route after the detailed survey.

24. PGCIL has further submitted that the cost of Tower Steel has increased due to higher actual quantum and higher rates of award through competitive bidding plus PV. Further, the variation in cost of Earthwire (14 %), Hardware Fittings (7%), Erection (12%) and Foundation for Structures (27%) were due to difference in award rate and estimate rate. The variation in cost of Control room and office buildings (₹ 260 lakh against NIL estimates) was due to establishment of Regional Testing Lab (RTL) at Jalandhar.

25. From the foregoing, it is observed that the cost variation is mainly due to increase in forest area and difference in estimated and awarded cost as well as quantity of certain items like tower steel. The explanation given by the petitioner for cost variation is reasonable. However, since the tariff is being approved only for one asset on the basis of management certificates only, the final cost of the assets would be examined at the time of determination of tariff for remaining assets at the time of truing up.

26. On account of time over-run the IDC and IEDC from April to October 2011 is as per details given hereunder:-

<b>(₹ in lakh)</b>		
<b>Detail of IDC &amp; IEDC as per Management Certificate dated 10.12.2011</b>		
	<b>IEDC</b>	<b>IDC</b>
Up to 31.3.2011	66.68	255.70
From 1.4.2011 to 31.10.2011	17.29	122.47
<b>Total IDC and IEDC Claimed</b>	<b>83.97</b>	<b>378.17</b>
<b>Details of IDC &amp; IEDC disallowed for 3 months</b>		
<b>Total Disallowed IDC (for 3 months)</b>	<b>7.41</b>	<b>52.49</b>

27. After deducting the IEDC and IDC, the capital cost for the purpose of computation of tariff is given hereunder:-

<b>(₹ in lakh)</b>			
<b>Particulars</b>	<b>Capital Cost as on date of commercial operation</b>	<b>Disallowed IDC and IEDC</b>	<b>Capital Cost as on DOCO after deducting disallowed IDC &amp; IEDC</b>
Transmission Line	3266.14	59.90	3206.24

### **Additional capital expenditure**

28. With regard to additional capital expenditure, clause 9(1) of the 2009 Tariff Regulations provides as follows:-

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

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

29. The 2009 Tariff Regulations further defines cut-off date as under:-  
“cut-off date means 31<sup>st</sup> march of the year closing after 2 years of the year of commercial operation of the project, and incase of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31<sup>st</sup> March of the year closing after 3 years of the year of commercial operation”.

Therefore, cut-off date for the transmission asset is 31.3.2014.

30. Details of proposed additional capitalization for the Asset are given hereunder:-

(₹ in lakh)			
Year	Transmission element	Proposed additional capital expenditure	Justification
2011-12	Transmission Line	297.31	Balance/Retention payments
2012-13	Transmission Line	208.50	Balance/Retention payments

31. As the additional capital expenditure claimed by PGCIL falls within the cut-off date, the same is allowed.

### **Debt- equity ratio**

32. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. **Debt-Equity Ratio** (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.

xxx

33. Details of the opening debt-equity in respect of the transmission assets considered for the purpose of tariff is given hereunder:-

	Approved		Cost as on date of commercial operation	
	(₹ in lakh)	%	(₹ in lakh)	%
Debt	2670.56	70.00	2244.37	70.00
Equity	1144.52	30.00	961.87	30.00
<b>Total</b>	<b>3815.08</b>	<b>100.00</b>	<b>3206.24</b>	<b>100.00</b>

34. Details of debt equity based on the additional capital expenditure is as given hereunder:-

Normative				
	Add cap for 2011-2012		Add cap for 2012-13	
	(₹ in lakh)	%	(₹ in lakh)	%
Debt	208.12	70.00	145.95	70.00
Equity	89.19	30.00	62.55	30.00
<b>Total</b>	<b>297.31</b>	<b>100.00</b>	<b>208.50</b>	<b>100.00</b>

35. Details of the debt-equity ratio as on 31.3.2014 is as under:

	As on 31.3.2014	
	(₹ in lakh)	%
Debt	2598.44	70.00
Equity	1113.61	30.00
<b>Total</b>	<b>3712.05</b>	<b>100.00</b>

### **Return on equity**

36. Regulation 15 of the 2009 Tariff Regulations 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 financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations."

37. 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.

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

(₹ in lakh)

	2011-12 (Pro rata)	2012-13	2013-14
Opening Equity	961.87	1051.06	1113.61
Addition due to Additional Capital Expenditure	89.19	62.55	0.00
Closing Equity	1051.06	1113.61	1113.61
Average Equity	1006.47	1082.34	1113.61
Return on Equity (Base Rate )	15.50%	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%	11.330%
Rate of Return on Equity (Pre Tax )	17.481%	17.481%	17.481%
Return on Equity (Pre Tax)	<b>73.31</b>	<b>189.20</b>	<b>194.67</b>

## **Interest on loan**

39. Regulation 16 of the 2009 Tariff Regulations provides as under:-

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

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

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

(c) Notwithstanding 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.

41. Detailed calculation of the weighted average rate of interest has been given in the Annexure to this order.

42. Details of the interest on loan worked on the above basis is as under:-

	(₹ in lakh)		
	2011-12 (Pro rata)	2012-13	2013-14
Gross Normative Loan	2244.37	2452.49	2598.44
Cumulative Repayment upto Previous Year	0.00	73.81	264.30
Net Loan-Opening	2244.37	2378.68	2334.14
Addition due to additional capital expenditure	208.12	145.95	0.00
Repayment during the year	73.81	190.49	196.00
Net Loan-Closing	2378.68	2334.14	2138.14
Average Loan	2311.53	2356.41	2236.14
Weighted Average Rate of Interest on Loan	8.9418%	8.9398%	8.9375%
<b>Interest</b>	<b>86.12</b>	<b>210.66</b>	<b>199.86</b>

## Depreciation

43. Regulation 17 (4) of the 2009 Tariff Regulations provides as under:-

(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.

44. Transmission asset was put on commercial operation on 1.11.2011.

Accordingly it will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 Tariff Regulations.

45. Details of the depreciation worked out are as under:-

(₹ in lakh)

	2011-12 (Pro rata)	2012-13	2013-14
Opening Gross Block (As on date of commercial operation)	3206.24	3503.55	3712.05
Addition during 2009-14 due to Projected Additional Capital Expenditure	297.31	208.50	0.00
Closing Gross Block	3503.55	3712.05	3712.05
Average Gross Block	3354.90	3607.80	3712.05
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	3019.41	3247.02	3340.85
Remaining Depreciable Value	3019.41	3173.21	3076.55
Depreciation	<b>73.81</b>	<b>190.49</b>	<b>196.00</b>

## Operation & maintenance expenses

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

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



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

(₹ in lakh)

Element	2011-12 (Pro-rata)	2012-13	2013-14
14.98 Km, 220 kV D/C twin conductor Chamera Pooling Station (Chamba)- Chamera-III, T/L (DOCO:1.11.2011)	4.38	11.10	11.73
<b>Total O&amp;M Expenses</b>	<b>4.38</b>	<b>11.10</b>	<b>11.73</b>

48. The petitioner has submitted that O & M expenses for the year 2009-14 had been arrived on the basis of normalized actual O & M expenses during the period 2003-04 to 2007-08. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also been considered while calculating the O & M expenses for the tariff period 2009-14. The petitioner has further submitted that it would approach the Commission for suitable revision in the norms for O & M expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%. The respondents, PSCPL and Rajasthan discoms have submitted that the request by the petitioner regarding higher O&M expenses may not be considered as 50% increase on account of pay revision of petitioner's employees has already been allowed by the Commission in O&M norms for the 2009 Tariff Regulations.

49. It is clarified that, if any application for revision of norms of O&M expenditure is filed by the petitioner in future, it will be dealt with in accordance with law. It is further clarified that in the instant petition, the O&M expenses are allowed as per the existing norms.

### **Interest on working capital**

50. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed hereunder:-

#### **(i) Receivables**

As per Regulation 18(1) (c) (i) of the 2009 Tariff 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 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 Tariff 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 Tariff Regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year in the petition. This has been considered in the working capital.

#### (iv) Rate of interest on working capital

The SBI Base rate of 8.25% plus 350 bps, i.e., 11.75% has been considered as the rate of interest on working capital.

51. Necessary computations in support of interest on working capital are given hereunder:-

	(₹ in lakh)		
	2011-12 (Pro rata)	2012-13	2013-14
Maintenance Spares	1.58	1.67	1.76
O & M expenses	0.88	0.93	0.98
Receivables	96.99	102.30	102.44
Total	99.45	104.89	105.17
Rate of Interest	11.75%	11.75%	11.75%
<b>Interest</b>	<b>4.87</b>	<b>12.32</b>	<b>12.36</b>

#### Transmission charges

52. The transmission charges being allowed for the transmission assets are summarized below:-

	(₹ in lakh)		
	2011-12 (Pro rata)	2012-13	2013-14
Depreciation	73.81	190.49	196.00
Interest on Loan	86.12	210.66	199.86
Return on equity	73.31	189.20	194.67
Interest on Working Capital	4.87	12.32	12.36
O & M Expenses	4.38	11.10	11.73
<b>Total</b>	<b>242.49</b>	<b>613.78</b>	<b>614.61</b>

#### Filing fee and publication expenses

53. The petitioner has sought approval for the reimbursement of fee paid by it for filing the petition. BRPL has submitted that the petitioner's request for filing fee and publication expenses should be rejected in line with the Commission's order of 11.9.2005. UPPCL has submitted that the filing fee

shall be governed by the commission's order. It is clarified that Petition No. 129/2005 pertains to the 2004-09 tariff block. In accordance with the Commission's decision in 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.

### **Licence fee**

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

55. The respondent, UPPCL has submitted that the petitioner's request for reimbursement of licence fee should be rejected as the payment of licence fee is the onus of the petitioner. BRPL has submitted that the licence fee is part of the O&M expenses and there is no provision for reimbursement of licence fee in the 2009 Tariff Regulations and hence the petitioner's request should be rejected. 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**

56. The petitioner has made a prayer to bill and recover the Service tax on transmission charges separately from the respondents, if it is subjected to such service tax in future. The respondent, UPPCL objects to levying of service tax on the beneficiaries. BRPL has also submitted that the petitioner's

request for recovery of licence fee from the beneficiaries must be rejected. We consider the prayer pre-mature and accordingly this prayer is rejected.

### **Sharing of transmission charges**

57. The petitioner has submitted that the transmission tariff for the 220 kV D/C transmission line from GIS Pooling Station Chamba - Chamera-III HEP shall be shared by the PTC/ LANCO in line with the BPTA dated 18.10.2007 between petitioner, PTC and LANCO, till the asset becomes part of the regional system i.e. till the commissioning of Chamera-III HEP. After this asset becomes part of regional system, all the respondents shall share the tariff and the transmission tariff shall be recovered on monthly basis in accordance with Regulation 23.

58. The respondents, Punjab State Power Corporation Ltd. (PSPCL), and Rajasthan discoms have requested that apportionment of transmission charges should be clearly specified in the order.

59. The transmission charges for the transmission assets covered under this petition shall be shared by the PTC/ LANCO in line with the BPTA dated 18.10.2007 signed between PTC/ LANCO and the petitioner, till these assets become part of the regional system, i.e. till the commissioning of Chamera-III HEP. After the asset becomes part of regional system, all the constituents of the Northern Region shall share the tariff in accordance with the Central Electricity Regulatory Commission (Sharing of inter-state transmission charges and losses) Regulations, 2010.

60. The billing, collection and disbursement of the transmission charges shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of inter-state transmission charges and losses) Regulations, 2010 as amended from time to time. The provisional transmission charges allowed shall be adjusted in accordance with the proviso to Regulation 5(3) of the 2009 Tariff Regulations.

61. This order disposes of Petition No. 92/TT/2011.

Sd/-

**(M. Deena Dayalan)**  
**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	2011-12	2012-13	2013-14
<b>1 Bond XXVIII</b>			
Gross loan opening	140.00	140.00	140.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	11.67
Net Loan-Opening	140.00	140.00	128.33
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	11.67	11.67
Net Loan-Closing	140.00	128.33	116.67
Average Loan	140.00	134.17	122.50
Rate of Interest	9.33%	9.33%	9.33%
Interest	13.06	12.52	11.43
Rep Schedule	12 annual installments from 15.12.2012		
<b>2 Bond XXIX</b>			
Gross loan opening	200.00	200.00	200.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	16.67
Net Loan-Opening	200.00	200.00	183.33
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	16.67	16.67
Net Loan-Closing	200.00	183.33	166.67
Average Loan	200.00	191.67	175.00
Rate of Interest	9.20%	9.20%	9.20%
Interest	18.40	17.63	16.10
Rep Schedule	12 annual installments from 12.3.2013		
<b>3 Bond XXX</b>			
Gross loan opening	550.00	550.00	550.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	550.00	550.00	550.00
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	0.00	45.83
Net Loan-Closing	550.00	550.00	504.17
Average Loan	550.00	550.00	527.08
Rate of Interest	8.80%	8.80%	8.80%
Interest	48.40	48.40	46.38
Rep Schedule	12 annual installments from 29.9.2013		
<b>4 Bond XXXI</b>			
Gross loan opening	330.00	330.00	330.00
Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
Net Loan-Opening	330.00	330.00	330.00

	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	27.50
	Net Loan-Closing	330.00	330.00	302.50
	Average Loan	330.00	330.00	316.25
	Rate of Interest	8.90%	8.90%	8.90%
	Interest	29.37	29.37	28.15
	Rep Schedule	12 annual installments from 25.2.2014		
<b>5</b>	<b>Bond XXXIII</b>			
	Gross loan opening	200.00	200.00	200.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	200.00	200.00	200.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	200.00	200.00	200.00
	Average Loan	200.00	200.00	200.00
	Rate of Interest	8.64%	8.64%	8.64%
	Interest	17.28	17.28	17.28
	Rep Schedule	12 annual installments from 8.7.2014		
<b>6</b>	<b>Bond XXXIV</b>			
	Gross loan opening	603.00	603.00	603.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	603.00	603.00	603.00
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	603.00	603.00	603.00
	Average Loan	603.00	603.00	603.00
	Rate of Interest	8.84%	8.84%	8.84%
	Interest	53.31	53.31	53.31
	Rep Schedule	12 Annual installments from 21.10.2014.		
<b>7</b>	<b>Bond XXXVI</b>			
	Gross loan opening	263.30	263.30	263.30
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00
	Net Loan-Opening	263.30	263.30	263.30
	Additions during the year	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	0.00
	Net Loan-Closing	263.30	263.30	263.30
	Average Loan	263.30	263.30	263.30
	Rate of Interest	9.35%	9.35%	9.35%
	Interest	24.62	24.62	24.62
	Rep Schedule	15 Annual installments from 29.8.2016		
	Gross loan opening	2286.30	2286.30	2286.30



Cumulative Repayment upto DOCO/previous year	0.00	0.00	28.33
Net Loan-Opening	2286.30	2286.30	2257.97
Additions during the year	0.00	0.00	0.00
Repayment during the year	0.00	28.33	101.67
Net Loan-Closing	2286.30	2257.97	2156.30
Average Loan	2286.30	2272.13	2207.13
Rate of Interest	8.9418%	8.9398%	8.9375%
<b>Interest</b>	204.44	203.12	197.26