CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

<u>Petition No. 290/TT/2013</u>

Coram:

Shri Gireesh B. Pradhan, Chairperson
Shri A. K. Singhal, Member

Date of Hearing : 24.06.2014
Date of Order : 07.07.2015

In the matter of:

Approval of transmission tariff of 400 KV D/C Chamera Pooling station-Jalandhar T/L alongwith bays and Line Reactor of Jalandhar under Transmission System associated with Chamera- III HEP for tariff block 2009-14 period in Northern Region 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.

And in the matter of:

Power Grid Corporation of India Limited
"Saudamini", Plot No.2,
Sector-29, Gurgaon -122 001. **………Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Ltd.,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur- 302 005.

2. Ajmer Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur-302 024.

3. Jaipur Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur-302 024.

4. Jodhpur Vidyut Vitran Nigam Ltd.,
   400 kV GSS Building (Ground Floor), Ajmer Road,
   Heerapura, Jaipur-302 024.

5. Himachal Pradesh State Electricity Board,
   Vidyut Bhawan, Kumar House Complex Building II,
   Shimla- 171 004.

6. Punjab State Electricity Board
   The Mall, Patiala-147 001.

7. Haryana Power Purchase Centre,
   Shakti Bhawan, Sector-6,
   Panchkula (Haryana)-134 109.

8. Power Development Department,
   Govt. of Jammu and Kashmir,
   Mini Secretariat, Jammu-180 001.

9. UP Power Corporation Ltd.,
   Shakti Bhawan, 14, Ashok Marg,
   Lucknow- 226 001.

10. Delhi Transco Ltd.,
    Shakti Sadan, Kotla Road,
    New Delhi- 110 002.

11. BSES Yamuna Power Ltd.,
    BSES Bhawan, Nehru Place,
    New Delhi- 110 019.

12. BSES Rajdhani Power Ltd.,
    BSES Bhawan, Nehru Place,
    New Delhi- 110 019.

13. HOG (PMG),
    Tata Power Delhi Distribution Ltd.,
    33 kV Substation, Building
    Hudson Lane, Kingsway Camp,
    North Delhi-110 009.

14. Chandigarh Administration,
    Sector-9, Chandigarh-160 009.

15. Uttarakhand Power Corporation Ltd.,
    Urja Bhawan, Kanwali Road,
    Dehradun- 248 001.

16. North Central Railway,
    Allahabad- 211 003.

17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi- 110 002.

18. Lanco Green Power Pvt. Ltd.
Lanco House, 141, Avenue 8,
Banjara Hills, Hyderabad-500 034.

19. PTC India Ltd.,
2nd Floor, NBCC Tower,
15, Bhikaji Cama Place,
New Delhi-110 066. **….Respondents**

For petitioner : Shri S K Venkatesan, PGCIL
Ms. Sangeeta Edwards, PGCIL
Shri S. S. Raju, PGCIL
Shri M M Mondal, PGCIL
Ms. Seema Gupta, PGCIL
Shri Rakesh Prasad, PGCIL

For respondent : Shri R. B. Sharma, Advocate, BRPL
Shri Padamjit Singh, PSPCL
Shri Mishri Lal, Northern Railway

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (PGCIL) seeking approval of transmission tariff of 400 KV D/C Chamera Pooling Station-Jalandhar Transmission Line alongwith bays and Line Reactor of Jalandhar (hereinafter referred to as "transmission assets") under Transmission System associated with Chamera-III HEP for tariff block 2009-14 period in Northern Region, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009, (hereinafter referred to as "the 2009 Tariff Regulations").

2. Investment Approval (IA) of the project was accorded by the Board of Directors of the petitioner vide letter dated 28.4.2008 at an estimated cost of

₹29737 lakh including IDC of ₹2323 lakh, based on 1st Quarter, 2008 price level. Further, it was revised vide letter dated 6.6.2012 to an estimated cost of ₹38632 lakh including IDC of ₹6221 lakh (Based on 2nd Quarter, 2011 price level).

3. The scope of work covered under the scheme is as follows:-

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 – Jallandhar 400 kV D/C line.

Sub-Station:

Extension of Jallandhar Sub-station.

4. The petitioner initially claimed transmission tariff for the instant transmission asset and 220 kV D/C TL from GIS pooling station Chamba-Chamera-III HEP and Jalandhar Sub-station Extension in Petition No.92/TT/2011 and both the assets were anticipated to be commissioned on 1.7.2011. The transmission tariff for only 220 kV D/C TL from GIS pooling station Chamba-Chamera-III HEP and Jalandhar Sub-station Extension was allowed vide order dated 16.11.2012 in Petition No. 92/TT/2011. The tariff for the instant asset was not allowed in Petition No.92/TT/2011 as it was not commissioned as on 16.11.2012 and the petitioner was directed to file a separate petition. The instant asset commissioned on 1.4.2013, accordingly, the petitioner filed the instant petition seeking transmission tariff for 400 KV

D/C Chamera Pooling Station-Jalandhar Transmission Line alongwith bays and Line Reactor at Jalandhar.

5. The petitioner has submitted Auditor's Certificate dated 7.10.2013 in support of expenditure as on the actual date of commercial operation of the asset which is 1.4.2013. The petition covers determination of tariff based on the actual expenditure incurred for the asset up to 31.3.2013 and estimated additional capital expenditure projected to be incurred during the period from 1.4.2013 to 31.3.2014, as indicated in the Auditor's Certificate dated 7.10.2013, verified on the basis of the information drawn from audited statements up to 31.3.2013, submitted along with the petition.

6. The details of apportioned approved cost, actual expenditure incurred as on the date of commercial operation and the details of additional capital expenditure projected to be incurred for the period from 1.4.2013 to 31.3.2015 for the instant asset are summarized below:-

(₹ in lakh)

Apportioned / Approved REC Cost	**Expenditure up to COD i.e. 1.4.2013**	**Projected Exp. from 1.4.2013 to 31.3.2014**	**Projected Exp. 2014-15**	**Total estimated completion cost**
34754.88	33231.14	1000.00	270.66	34501.80

7. Details of the transmission charges claimed by the petitioner are as given hereunder:-

(₹ in lakh)

Particulars	**2013-14**
Depreciation	1,774.73
Interest on Loan	2,023.42
Return on equity	1,768.96
Interest on Working Capital	146.28
O & M Expenses	389.87
Total	**6103.26**

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

(₹ in lakh)

Particulars	2013-14
Maintenance Spares	58.48
O & M expenses	32.49
Receivables	1017.21
Total	**1108.18**
Interest	146.28
Rate of Interest	13.20%

9. No comments have been received from the general public in response to the notices published in news papers by the petitioner under Section 64 of the Electricity Act, 2003 (the Act). Replies have been filed by UP Power Corporation Ltd. (UPPCL), Respondent No.5, BSES Rajdhani Power Limited (BRPL), Respondent No.12 and Punjab State Power Corporation Ltd. (PSPCL), Respondent No. 6. vide affidavits dated 5.12.2013, 19.6.2014 and 18.6.2014 respectively. The petitioner has filed rejoinder to the reply filed by BRPL and PSPCL vide separate affidavits dated 14.7.2014. The concerns expressed by the respondents are being addressed in the respective paras of this order.

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

Capital cost

11. Regulation 7 of the 2009 Tariff Regulations provides as follows:-

"(1) Capital cost for a project shall include:-

(a) 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.

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:

Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff."

12. The following capital cost as on the date of commercial operation of the instant asset has been considered as provided under Regulation 7(1) of the 2009 Tariff Regulations for the purpose of computation of tariff:-

(₹ in lakh)

COD	**Capital cost claimed for the purpose of tariff as on COD**	**Applicable period of tariff**
1.4.2013	33231.14	1.4.2013 to 31.3.2014

Treatment of IDC and IEDC

13. The petitioner has claimed Interest During Construction (IDC) amounting to ₹5493.39 lakh. However, the information relating to amount of actual IDC paid yearly upto the date of commercial operation is not available.

In the absence of this information, IDC paid on cash basis has been worked out and considered in the capital cost. The amount of IDC accrued as on the date of commercial operation but to be discharged after the date of commercial operation has not been considered in the capital cost. The petitioner is directed to submit the amount of actual IDC paid upto the date of commercial operation and the balance paid after the date of commercial operation. The undischarged liability pertaining to IDC would be considered once it is paid subject to prudence check and submission of information at the time of truing up. Similar methodology was adopted by us in order dated 10.2.2015 in Petition no. 200/TT/2012, where IDC paid on cash basis up to the date of commercial operation has been considered.

14. Considering cash basis approach, the IDC up to the date of commercial operation works out to be ₹4929.15 lakh. It is assumed that the petitioner has not made any default in the payment of interest. The amount remaining undischarged till the date of commercial operation is not included in the capital cost as on the date of commercial operation.

15. The petitioner has claimed Incidental Expenditure during Construction (IEDC) of ₹971.67 lakh. In the absence of detailed computation of IEDC, the percentage on Hard Cost indicated in the Abstract Cost Estimate is considered as the allowable limit of IEDC. The petitioner has indicated 9.75% of Hard Cost as IEDC in the Abstract Cost Estimate. The amount of IEDC ₹971.67 lakh, claimed by the petitioner appears to be within the limit and hence it is considered for the purpose of computation of tariff.

16. The capital cost claimed by the petitioner and considered for computation of tariff as on the date of commercial is given below:-

(₹ in lakh)

Claimed by the petitioner				**Considered for computation of tariff**			
Capital cost as on COD	**IEDC**	**IDC**	**Total capital cost as on COD**	**Capital cost as on COD**	**IEDC**	**IDC**	**Total capital cost as on COD**
26766.08	971.67	5493.39	**33231.14**	26766.08	971.67	4929.15	**32666.90**

Cost over-run

17. Total estimated completion cost of the asset is ₹34501.80 lakh against the apportioned revised cost estimate of ₹34754.88 lakh**.** Hence, there is no cost over-run. However, as per Form 5B there is cost variation in certain items. BRPL has also pointed out that there is variation in cost of some of the items and the petitioner should be directed to give the reasons for the same. UPPCL has also submitted that the petitioner should be directed to furnish the reasons for cost variation. The petitioner was directed to explain the reasons for the cost variation in the case of following items:-

a) Preliminary investigation, RoW, Forest clearance, PTCC, General civil works etc. - 249.86 %
b) Tower Steel - 87.8%
c) Spare - 42%
d) Erection, stringing & civil works including Foundation - 24.7%
e) Foundation for structure - 31.2%
f) Tools & Plants - 230.4%
g) PLCC ---- FR Cost not given

18. In response, the petitioner vide affidavit dated 4.4.2014 has submitted as under:-

a) The cost estimates are prepared based on the walk over survey with broad estimates of line length, and initial assessment of civil work / site leveling, boundary wall etc. Similarly the rates are taken from the last available rates on similar contracts. The estimates are based on actual survey, which is based on various factors like soil condition, various crossings (rail/road/river), actual ROW issues, actual civil work etc. and at times, the quantity and work involvement changes. Further, the competitive rate of successful bidder may vary from the estimate. These factors lead to variation in cost estimate and the actual LOA rates. The details of the cost variations are as follows:-

i. Preliminary Investigation, RoW, Forest Clearance, PTCC & General Civil works.

(₹ in lakh)

Sl. No	Details	Cost as per FR	Actual Cost	Reason for increase in Cost
1.	Survey & Soil investigation	47.82	56.08	Forest area increased from 73.6 Ha to 159.28 Ha. Crop & PTCC compensation & expenditure towards survey and soil investigation.
2.	Crop & PTCC compensation	146	326.67	
3.	Forest compensation inc. NPV	743.36	2653.72	
4.	Tower steel	FR ₹0.55 lakh per MT	LOA ₹0.81 lakh per MT	Variation in quantity from 9022 MT to 11537 MT due to increase in line length by 10 km.
5.	Tools & Plants	201.59	666.03	Due to establishment of regional testing lab at Jalandhar which was not included in FR.

ii. **Tower Steel:** In addition to the bidding cost, the cost variation is also due to increase in line length from 154 km (as envisaged in FR) to 164 km (as per actual). Initially, length taken in FR is based on walkover survey. However, after detailed survey at site, taking into account minimization of forest area and other such factors, line length increased. Increase in line length resulted into increase in quantity of tower equipments and finally in cost of the equipment. There is variation in quantity from 9022 MT to 11537 MT based on actual requirement and unit rate of tower steel in FR (₹0.55 lakh/ MT) and LOA (₹0.81 lakh/MT)

iii. The line falls in snow zone, non-snow zone, plain terrain zone and hilly terrain zone and hence there is increase in quantity of spares, as compared to FR.

iv. The cost variation towards erection, stringing & civil works including foundation is due to variation in rates and quantity and higher tender cost.

b) During FR no cost towards PLCC was envisaged, however the minor addition of total cost of PLCC of ₹10 lakh is for 2000A Line Traps for Line.

19. As per the submission of the petitioner the line length has increased by 10 km (154 km to 164 km) and the rate of Steel has increased from ₹0.55 lakh/MT (at the time of FR) to ₹0.81 lakh/MT (at the time of LOA). There is variation in quantity of Tower Steel from 9022 MT to 11537 MT based on actual requirement. The total increase in quantity of Tower Steel and variation in cost is ₹4382.85[(11537x0.81)-(9022 x 0.55)], which is approximately 88%. We have taken into consideration the submissions made by the petitioner for the variation in cost of some of the items. We are of the view that the cost variation is beyond the control of the petitioner and as such it is allowed.

Time over-run

20. As per the IA dated 28.4.2008, the instant asset was scheduled to be commissioned within 39 months. Accordingly, the scheduled date of commercial operation works out to 27.7.2011, i.e. by 1.8.2011. The asset was commissioned on 1.4.2013. Thus, there is a time over-run of 20 months in commissioning the asset. The petitioner has submitted that the time over-run is mainly on account of delay in approval of forest diversion for construction of the transmission line. The modalities involved in the Scheduled Tribes and other traditional Forest dwellers (Recognition of Forest Right) Act, 2006 like the discussion on proposals for diversion of Forest Land in Local Gram Sabhas (on meeting 50% Quorum criteria) etc. lead to further delay. The execution of work started after 26.6.2012 in the forest area. However, due to time taken in tree cutting, bad weather and heavy snowfall during November, 2012 and February, 2013, the line was completed in March, 2013. The petitioner has submitted the following details of forest clearances obtained:-

(a) For Chamba Division: (forest area=32.207 Ha)

Proposal for forest clearance submitted in July 2007.

1st stage clearance obtained on 22.9.2010.

Stage-II clearance obtained on 26.6.2012.

(b) For Dalhousie Division: (forest area=41.285Ha)

Proposal for forest clearance submitted in July, 2007.

1st stage clearance obtained on 22.9.2010.

Stage-II clearance obtained on 26.6.2012.

(c) For Nurpur Division: (forest area=57.206Ha)

Proposal for forest clearance submitted in June, 2007.

1st stage clearance obtained on 22.9.2010.

Stage-II clearance obtained on 26.6.2012.

21. BRPL has submitted, in its reply and during the hearing on 24.6.2014 that the time over-run is due to improper coordination and slackness on the part of the petitioner. The time over-run should be governed by the principles laid down by Hon'ble Appellate Tribunal for Electricity (the Tribunal) in its judgment dated 27.4.2011 in Appeal No. 72/2010. As per the said judgment the delay in making land available to the contractor is attributable to the transmission licensee and in the instant case there was delay in handing over of land by the petitioner to the contractor and hence the cost of time over-run including the IDC and IEDC should be borne by petitioner. PSPCL and UPPCL have also submitted that time over-run should not be allowed.

22. During the hearing on 24.6.2014, the representative of the petitioner submitted that the delay in commissioning of the assets did not result in bottling-up of power and further reiterated that the reasons for delay are beyond its control and requested to condone the delay in commissioning of the instant assets. In its rejoinder to the reply filed by BRPL, the petitioner reiterated that the time over-run is due to delay in forest clearance and heavy snowfall. The prayed the time over-run is beyond the control of the petitioner and it may be condoned.

Analysis of time over-run

23. The chronology of the events as per submission of the petitioner is summarised below:-

Sl. No.	Details	Plan	Actual	Remarks
1.	Investment Approval	-	28.4.2008	Scheduled commissioning within 39 months
2.	Approached DFO i) Nurpur ii) Chamba/Dalhousie	 - -	 June, 2007 July, 2007	
3.	Letter of Award Scheduled/Actual	-	14.10.2008	Work was to be completed within 22 months
4.	Completion of work	14.8.2010	1.4.2013	
5.	First stage clearance	-	22.9.2010	
6.	Second stage clearance	-	26.6.2012	
7.	Work started in Forest area	-	26.6.2012	
8.	Commissioning	1.8.2011	1.4.2013	Delay 20 months

24. We have considered the submissions made by the petitioner and the respondents. The instant asset was to be commissioned on 1.8.2011 and it was commissioned on 1.4.2013 after a time over-run of 20 months. It is observed that the forest clearance took about 5 years (July, 2007 to June, 2012). Due to delay in handing over of the forest land, the supplier could start the work in forest area on 26.6.2012 i.e. almost 11 months (1.8.2011 to 26.6.2012) after schedule completion of the work and supplier has completed the work within 9 months. There was heavy snowfall during November, 2012 to February, 2013 which hindered the construction activities. Further, the delay in execution of the instant assets did not result in bottling up of power. We are of the view that the time over-run is due to delay in getting forest clearances and bad weather and same was beyond the control of the petitioner.

25. As regards BRPL's submission that time over-run should be dealt as per the Tribunal's judgement dated 27.4.2011 in Appeal No. 72/2010, the time over-run would be attributable to the project developer only if there is any imprudence on its part.

26. The Hon'ble Appellate Tribunal for Electricity in its judgement dated 5.5.2015 in Appeal No.129/2014 had observed that the petitioner should have peaceful and actual possession of land for timely commissioning of the assets. The relevant portion of the is extracted hereunder:-

> "9.12 We feel condoning only 22 months out of 31/32 months of delay by the Central Commission is not reasonable because the land dispute went on for a long period and unless the disputed land finally comes into possession of the appellant the appellant cannot complete the balance work and cannot charge the line unless the line is commissioned, the new 400 kV Arasur sub-station along with ICTs cannot be commissioned.
>
> 9.13 **Issue No.1:** The learned Central Commission has wrongly rejected the claim of the Appellant towards IDC and IEDC for the delay in commissioning of the Assets 5(c), 6 and 7. We observed that the condonation of only 22 months out of total 31/32 months of delay by the Central Commission is not reasonable because the land dispute went on for a long period and unless the disputed land finally comes into peaceful and actual possession of the Appellant Petitioner, the Appellant cannot build, the balance work, hence, the findings on Issue No.1 recorded in the impugned order are perverse and based on improper appreciation of the material available on record. We allow the total time over run as claimed by the Appellant Petitioner with regard to assets 5 (c), 6 and 7. The Central Commission's findings are liable to be set aside to the extent indicated above by us while concluding this Issue No.1."

In the instant case, the asset was to be commissioned by 1.8.2011 but was commissioned on 1.4.2013 i.e. after a time over run of 20 months. The petitioner obtained the forest clearance in 5 years. However, due to delay in handling over the forest land, the suppliers could start work on 26.6.2012. The letter of award was issued on 14.10.2008 with scheduled completion within 22 months thereof. However, the land stretch was handed over on 26.6.2012 i.e.

about 3 years and eight months after date of letter of award. However, the vendor completed the work in 9 months after getting possession of the land. We are of the view that the time over run of 20 months in commissioning of the assets is due to delay in getting forest clearance and bad weather. Therefore, the delay cannot be attributable to the petitioner. Accordingly, the time over run of 20 months is condoned and IDC/IEDC for this period is allowed to be capitalised.

<u>Initial spares</u>

27. Regulation 8 of 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

Transmission line	0.75%
Transmission sub-station	2.5%
Series compensation devices & HVDC Station	3.5%

28. BRPL and UPPCL have submitted that the initial spares should be restricted to the norms specified in the 2009 Tariff Regulations. The petitioner has claimed initial spares amounting to ₹261.29 lakh and ₹56.80 lakh for the instant asset corresponding to Transmission Line and Sub-Station respectively. The petitioner has submitted that the whole project has been completed and prayed that the initial spares as claimed may be approved considering the project as whole. Initial spares for the project as will be reviewed at the time of truing up after submission of relevant details.

29 In view of the above, excess initial spares claimed in respect of the instant asset have been deducted to arrive at the capital cost as per the following details: -

(₹ in lakh)

Particulars	**Capital cost claimed as on cut-off date / 31.3.2014**	**Initial spares claimed against capital cost claimed as on cut-off date / 31.3.2014**	**Capital cost after adjustment of IEDC/IDC disallowed as on cut-off date / 31.3.2014**	**Proportionate claim of initial spares against the adjusted capital cost as on cut-off date 31.3.2014**	**Ceiling limit as per the 2009 Tariff Regulations**	**Initial spares works out**	**Excess initial spares claimed**
Transmission Line	31481.12	261.29	30961.88	256.98	0.75%	232.03	**24.95**
Sub-Station (including Building and PLCC)	2750.02	56.80	2705.02	55.87	2.50%	67.93	**0.00**

30. The initial spares claimed in respect of sub-station is within the specified limits and hence no adjustment is required in case of sub-station. Therefore, capital cost considered for the purpose of tariff in the present petition after adjustment of IDC, IEDC and initial spares is ₹32641.95 lakh as on the date of commercial operation.

Additional capital expenditure

31. As regards Additional Capital Expenditure clause 9(1) of the 2009 Tariff 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;
>
> (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:"

32. Further, the 2009 Tariff Regulations define cut-off date as:-

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

33. Therefore, cut-off date for the above mentioned assets is 31.3.2015.

34. The petitioner has claimed additional capital expenditure of ₹1000 lakh and ₹270.66 lakh for the years 2013-14 and 2014-15. The additional capital expenditure claimed for the I year 2013-14 is toward balance and retention payment and it is within cut-off date and it is allowed under Regulation 9(1) of the 2009 Tariff Regulations. The petitioner's claim for additional capital expenditure for the year 2014-15 which falls beyond current tariff period and it shall be considered during the 2014-19 tariff period as per the 2014 Tariff Regulations.

35. The details of capital cost as on the date of commercial operation and additional capitalization projected to be incurred for the instant asset from date of commercial operation to 2014-15 is summarized below:-

(₹ in lakh)

Apportioned FR cost/ RCE	**Actual cost as on COD**	**Projected additional capital expenditure**		**Total estimated completion cost**
		2013-14	**2014-15**	
25921.43/34754.88	33231.14	1000.00	270.66	**34501.80**

Debt-equity ratio

36. 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.
>
> **Explanation.-** The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.
>
> (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.
>
> (3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

37. The details of the debt: equity ratio as on the date of commercial operation considered for the purpose of tariff determination are as under:-

(₹ in lakh)

Particulars	**Capital cost as on COD**	
	Amount	**%**
Debt	22,849.37	70.00
Equity	9,792.58	30.00
Total	**32641.95**	**100.00**

38. Debt-equity ratio of 70:30 is considered for the additional capital expenditure for the purpose of computation of tariff.

39. Details of the debt-equity ratio as on 31.3.2014 are as follows:-

(₹ in lakh)

Particulars	**Capital cost as on 31.3.2014**	
	Amount	**%**
Debt	23,549.37	70.00
Equity	10,092.58	30.00
Total	**33641.95**	**100.00**

Return on Equity (RoE)

40. 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% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall 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".

41. Details of return on equity calculated are as follows:-

(₹ in lakh)

Particulars	**2013-14**
Opening Equity	9792.58
Addition due to Additional Capitalisation	300.00
Closing Equity	10092.58
Average Equity	9942.58
Return on Equity (Base Rate)	***15.50%***
Tax rate for the year 2008-09 (MAT)	11.33%
Rate of Return on Equity (Pre Tax)	17.481%
Return on Equity (Pre Tax)	**1738.06**

42. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account on return on equity due to change in applicable Minimum Alternate Tax/Corporate Income Tax rate as per the Income Tax Act, 1961 of the respective financial year directly without making any application before the Commission shall be dealt under Regulation 15(5). Return on Equity has been computed @ 17.481% p.a on average equity as per Regulation 15 of the 2009 Tariff Regulations.

Interest on Loan

43. 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."

44 UPPCL has submitted that the impact of floating rate of interest on loan should not be allowed to be billed by the petitioner. The interest on loan has been calculated on the basis of prevailing rate available as on the date of commercial operation. Any change in rate of interest subsequent to date of commercial operation will be considered at the time of truing up.

45. In these calculations, 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; and

(c) 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.

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

47. Details of interest on loan calculated are given below:-

(₹ in lakh)

Particulars	**2013-14**
Gross Normative Loan	22849.37
Cumulative Repayment upto Previous Year	0.00
Net Loan-Opening	22849.37
Addition due to Additional Capitalisation	700.00
Repayment during the year	1743.72
Net Loan-Closing	21805.64
Average Loan	22327.50
Weighted Average Rate of Interest on Loan	8.9042%
Interest	**1988.08**

Depreciation

48. Regulation 17 of the 2009 Tariff Regulations provides for computation of depreciation in the following manner, namely:-

"17. Depreciation (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."

49. The petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The instant transmission assets were put under commercial operation on 1.4.2013 and accordingly, will complete 12 years beyond 2013-14. Thus, depreciation has been calculated annually based on Straight Line Method and at rates specified in Appendix-III of the 2009 Tariff Regulations on the basis of capital expenditure as on the date of commercial operation and additional capital expenditure incurred / projected to be incurred thereafter, as per details hereunder.

50. Details of the depreciation worked out are as follows:-

(₹ in lakh)

Particulars	**2013-14**
Gross Block as on COD	32641.95
Addition during 2009-14 due to Projected Additional Capitalisation	1000.00
Gross Block as on 31st March	33641.95
Average Gross Block	33141.95
Rate of Depreciation	5.2614%
Depreciable Value	29827.75
Remaining Depreciable Value	29827.75
Depreciation	**1743.72**
Cumulative Depreciation/ Advance against Depreciation	1743.72

Operation & Maintenance Expenses (O&M Expenses)

51. Clause (g) of Regulation 19 of the 2009 Tariff Regulations prescribes norms for O&M Expenses for transmission system based on type of sub-stations and the transmission line. Norms specified in respect of O&M Expenses for the assets covered in the petition are as under:-

Element	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
D/C twin conductor T/L (₹ lakh/ km)	0.627	0.663	0.701	0.741	0.783
400 kV bay (₹ lakh/ bay)	52.40	55.40	58.57	61.92	65.46

52. The allowable O&M Expenses for the assets covered in this petition are as under:-

(₹ in lakh)

Elements	**2013-14**
163.512 km 400 kV D/C twin T/L	128.03
4 nos., 400 kV bays	261.84
Total O&M of	**389.87**

53. The petitioner has stated that 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 submitted that it would approach the Commission for suitable revision in the norms for O&M Expenses due to wage revision, if any. The petitioner further submitted that in O&M Expenses 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. BRPL submitted that pay revision of the employees has already been considered while specifying the O&M norms and O&M Expenses should be allowed as per the Regulations.

54. While specifying the norms for the O & M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs after extensive consultations with the stakeholders, as one time compensation for employee cost. We do not see any reason why the admissible amount is inadequate to meet the requirement of the employee cost. In this order, we have allowed O&M Expenses as per the existing norms.

Interest on working capital

55. 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 average billing calculated on target availability level. 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 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 O & M Expenses for one month as a component of working capital. The petitioner has claimed O&M Expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per the 2009 Tariff Regulations, the SBI Base Rate Plus 350 bps as on 1.4.2013 (i.e.13.20%) has been considered as the rate of interest on working capital for the asset.

56. Necessary computations in support of interest on working capital are as follows:-

(₹ in lakh)

Particulars	2013-14
Maintenance Spares	58.48
O & M expenses	32.49
Receivables	1000.64
Total	1091.61
Rate of interest	13.20%
Interest	**144.09**

Transmission charges

57. The transmission charges being allowed for the transmission assets are summarized overleaf:-

(₹ in lakh)

Particulars	2013-14
Depreciation	1743.72
Interest on Loan	1988.08
Return on Equity	1738.06
Interest on Working Capital	144.09
O & M Expenses	389.87
Total	**6003.83**

Filing Fee and the Publication Expenses

58. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on *pro-rata* basis in accordance with Regulation 42 A (1) (a) of the 2009 Tariff Regulations.

Licence Fee

59. 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. BRPL has opposed grant of filing fee and publication expenses. UPPCL has submitted that licence fee is the eligibility fee and the petitioner should bear

the same. UPPCL has further submitted that it has filed an appeal before APTEL against the orders of the Commission in Petition Nos. 21 and 22 of 2011 allowing licence fee and the licence fee should not be allowed till the disposal of the appeal by APTEL. We would like to clarify that Appeal No.87/2012 filed by UPPCL has been dismissed by APTEL vide judgement dated 3.12.2013. The petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 42 A (1) (b) of the 2009 Tariff Regulations.

Service Tax

60. 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. BRPL and UPPCL have opposed recovery of the same from the beneficiaries. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

61. During hearing on 24.6.2014, the representative of PSPCL submitted that the transmission charges for the instant transmission system have to be borne by the NR constituents till the commissioning of Chamera-III HEP and thereafter it will be part of the regional system. In response, the representative of petitioner submitted that both Chamera-III and the instant line have been commissioned and hence the transmission charges for the instant assets shall be borne by the constituents of Northern Region in accordance with Sharing of inter-State Transmission Charges and Losses Regulations. UPPCL, in its reply has submitted that transmission charges for the instant lines should be borne

by Lanco till the commissioning of Chamera III HEP and PTC has to bear the transmission charges of the Pooling Station.

62. We have considered the submissions of the petitioner and the respondent. Since the Chmera-III generation project was commissioned before COD of the instant transmission assets shall be shared in accordance with the Central Electrical Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010

63. This order disposes of Petition No. 290/TT/2013.

-sd-	-sd-
(A. K. Singhal) **Member**	**(Gireesh B. Pradhan)** **Chairperson**

Annexure

Calculation of Weighted Average Rate of Interest on Actual Loans

(₹ in lakh)

	Details of Loan	**2013-14**
1	**Bond XXIX**	
	Gross loan opening	1875.00
	Cumulative Repayment upto DOCO/previous year	156.25
	Net Loan-Opening	1718.75
	Additions during the year	0.00
	Repayment during the year	156.25
	Net Loan-Closing	1562.50
	Average Loan	1640.63
	Rate of Interest	9.20%
	Interest	150.94
	Rep Schedule	12 annual installments from 12.3.2013
2	**Bond XXX**	
	Gross loan opening	5247.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	5247.00
	Additions during the year	0.00
	Repayment during the year	437.25
	Net Loan-Closing	4809.75
	Average Loan	5028.38
	Rate of Interest	8.80%
	Interest	442.50
	Rep Schedule	12 annual installments from 29.9.2013
3	**Bond XXXI**	
	Gross loan opening	3240.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	3240.00
	Additions during the year	0.00
	Repayment during the year	270.00
	Net Loan-Closing	2970.00
	Average Loan	3105.00
	Rate of Interest	8.90%
	Interest	276.35
	Rep Schedule	12 annual installments from 25.2.2014

4	**Bond XXXIII**	
	Gross loan opening	1951.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1951.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1951.00
	Average Loan	1951.00
	Rate of Interest	8.64%
	Interest	168.57
	Rep Schedule	12 annual installments from 8.7.2014
5	**Bond XXXIV**	
	Gross loan opening	5797.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	5797.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	5797.00
	Average Loan	5797.00
	Rate of Interest	8.84%
	Interest	512.45
	Rep Schedule	12 annual installments from 21.10.2014
6	**Bond XXXVI**	
	Gross loan opening	36.70
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	36.70
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	36.70
	Average Loan	36.70
	Rate of Interest	9.35%
	Interest	3.43
	Rep Schedule	15 annual installments from 29.8.2016.
7	**Bond XXXVIII**	
	Gross loan opening	1100.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1100.00

	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1100.00
	Average Loan	1100.00
	Rate of Interest	9.25%
	Interest	101.75
	Rep Schedule	Bullet Payment as on 9.3.2027
8	**Bond XL**	
	Gross loan opening	568.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	568.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	568.00
	Average Loan	568.00
	Rate of Interest	9.30%
	Interest	52.82
	Rep Schedule	12 annual installments from 28.6.2016
9	**Bond XXVIII**	
	Gross loan opening	1385.00
	Cumulative Repayment upto DOCO/previous year	115.42
	Net Loan-Opening	1269.58
	Additions during the year	0.00
	Repayment during the year	115.42
	Net Loan-Closing	1154.16
	Average Loan	1211.87
	Rate of Interest	9.33%
	Interest	113.07
	Rep Schedule	12 annual installments from 15.12.2012
10	**Bond XLI**	
	Gross loan opening	318.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	318.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	318.00
	Average Loan	318.00
	Rate of Interest	8.85%
	Interest	28.14
	Rep Schedule	12 annual installments from 19.10.2016

11	**Bond XLII**	
	Gross loan opening	1744.10
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	1744.10
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	1744.10
	Average Loan	1744.10
	Rate of Interest	8.80%
	Interest	153.48
	Rep Schedule	Bullet Payment as on 13.3.2023
	Total Loan	
	Gross loan opening	23261.80
	Cumulative Repayment upto DOCO/previous year	271.67
	Net Loan-Opening	22990.13
	Additions during the year	0.00
	Repayment during the year	978.92
	Net Loan-Closing	22011.21
	Average Loan	22500.67
	Rate of Interest	**8.9042%**
	Interest	2003.50