CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 300/TT/2013

Coram:

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

Date of Hearing : 26.08.2014
Date of Order : 13.08.2015

In the matter of:

Approval of transmission tariff of 400 kV D/C Agra-Sikar line along with bays under System Strengthening scheme in Northern Region for Sasan & Mundra UMPPs for tariff block 2009-14 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 Limited,
   Vidyut Bhawan, Vidyut Marg,
   Jaipur- 302 005

2. Ajmer Vidyut Vitran Nigam Limited,
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur

3. Jaipur Vidyut Vitran Nigam Limited,
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur

4. Jodhpur Vidyut Vitran Nigam Limited,
   400 kV GSS Building (Ground Floor),
   Ajmer Road, Heerapura, Jaipur

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

9. Uttar Pradesh Power Corporation Limited,
   Shakti Bhawan, 14, Ashok Marg,
   Lucknow-226 001

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

11. BSES Yamuna Power Limited,
    BSES Bhawan, Nehru Place,
    Delhi

12. BSES Rajdhani Power Limited,
    BSES Bhawan, Nehru Place,
    New Delhi.

13. North Delhi Power Limited,
    Power Trading & Load Dispatch Group,
    Cennet Building, Adjacent to 66/11 kV Pitampura-3,
    Grid Building, Near PP Jewellers,
    Pitampura, New Delhi-110 034

14. Chandigarh Administration,
    Sector-9, Chandigarh

15. Uttarakhand Power Corporation Limited,
    Urja Bhawan, Kanwali Road,
    Dehradun

16. North Central Railway,
    Allahabad

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

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

For respondents : Shri Padamjit Singh, PSPCL
Shri T.P.S. Bawa, PSPCL
Shri R.B. Sharma, Advocate, BRPL

ORDER

This petition has been filed by Power Grid Corporation of India Limited (PGCIL) for approval of the transmission charges of 400 kV D/C Agra-Sikar line along with associated bays (hereinafter referred to as "transmission assets"), under System Strengthening Scheme in Northern Region for Sasan & Mundra UMPPs for the tariff block 2009-14, in terms of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations").

2. The Investment approval for the transmission project was accorded by Board of Directors of the petitioner company vide letter No. C/CP/SS in NR for Sasan & Mundra dated 10.12.2009 at an estimated cost of ₹121683 lakh, including IDC of ₹5770 lakh (based on 2nd Quarter, 2009 price level).

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

Transmission Lines:

i) Agra-Sikar 400 kV D/C (Quad) Line :320 km

ii) Sikar-Jaipur 400 kV D/C Line :157 km
iii) Sikar-Ratangarh (RVPN) 400 kV D/C Line :90 km
iv) LILO of both circuits of Nathpa Jhakri-Abdullapur 400 kV D/C (Triple Snowbird) line at Panchkula :2x25 km
v) LILO of both circuits of Sikar (RVPN)-Ratangarh (RVPN) 220 kV D/C line at Sikar (PGCIL) :5.4 km

Sub-Stations:

i) 2x315 MVA, 400/220 kV Sikar Sub-station (New)
ii) 2x315 MVA, 400/220 kV Panchkula Sub-station (New)
iii) 765/400 kV Agra Sub-station (Extension)
iv) 400/220 kV Ratangarh (RVPN) Sub-station (Extension)
v) 400/220 kV Jaipur Sub-station (Extension)

Reactive Compensation:

Transmission line	**Line Reactors (MVAR)**	
	From end	To end
i) Agra-Sikar 400 kV D/C (Quad) line	50	50 (switchable)
ii) LILO of both circuits of Nathpa Jhakri-Abdullapur 400 kV D/C at Panchkula		
a) Nathpa Jhakri-Panchkula 400 kV D/C line	-	50 (switchable)
b) Panchkula-Abdullapur 400 kV D/C line	-	50 (existing reactor to be retained)
Switchable Bus Reactor (MVAR)		
(i) Sikar (ii) Ratangarh (iii) Panchkula	80 125 125	

4. The petitioner had prayed for approval of provisional tariff as per clause (4) of Regulation 5 of the 2009 Tariff Regulations. The provisional tariff was granted vide order dated 16.12.2013 under Regulation 5(4) of the 2009 Tariff Regulations subject to adjustment as provided under Regulation 5(3) of the 2009 Tariff Regulations.

5. The petitioner in the instant petition initially claimed tariff from actual/anticipated dates of commercial operation of the assets and later vide affidavit dated 8.4.2014

submitted the actual dates of commercial operation of the assets. The details submitted by the petitioner are as under:-

Asset	Particulars	COD as per main petition	Actual COD
Asset-A	400 kV D/C Quad Agra Sikar Transmission Line	1.1.2014 (Anticipated)	1.1.2014
Asset-B	2 nos. 400 kV line bays for 400 kV D/C Agra-Sikar line including 2 nos. 50 MVAR Line Reactors under Bus Reactor operation mode at 400/220 kV Sikar Sub-station	1.8.2013 (Actual)	1.8.2013

6. This order has been issued after considering the petitioner's affidavits dated 11.12.2013, 9.4.2014, 30.6.2014 and 14.10.2014. The petitioner has also filed affidavit dated 29.6.2015 considering the audited capital cost as on 31.3.2014 of the instant assets after truing up. Considering the fact that there are many other assets under the transmission system associated with Rampur HEP, we are not inclined to consider the affidavit dated 29.6.2015 in this order. However, the petitioner is directed to file a combined true up petition for the all assets covered under the Rampur HEP and the same would be considered alongwith the affidavit dated 29.6.2015 in the true up petition to be filed in terms of Regulation 6(1) of the 2009 Tariff Regulations.

7. The transmission charges claimed by the petitioner based on the actual date of commercial operation are as under:-

(₹ in lakh)

Particulars	Asset-A	Asset-B
	2013-14	**2013-14**
Depreciation	821.65	46.41
Interest on Loan	183.16	36.65
Return on Equity	815.83	47.08
Interest on working capital	48.84	12.35
O & M Expenses	146.02	174.56
Total	**2015.50**	**317.05**

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

(₹ in lakh)

Particulars	**Asset-A**	**Asset-B**
	2013-14	**2013-14**
Maintenance Spares	87.61	39.28
O & M Expenses	48.67	21.82
Receivables	1369.82	79.26
Total	**1506.10**	**140.36**
Rate of Interest	13.20%	13.20%
Interest	**49.70**	**12.35**

9. 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. Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 9, BSES Rajdhani Power Limited (BRPL), Respondent No. 12 and Punjab State Power Corporation Limited, Respondent No. 6 have filed replies vide affidavits dated 5.12.2013, 22.8.2014 and 30.8.2014 respectively. UPPCL and BRPL have raised the issues like time and cost over-run, additional capital cost, floating rate of interest, service tax, license fee, filing fee and expenses incurred on publication of notices, levies, duties, cess or any other statutory taxes, O&M expenses. PSPCL has raised certain technical issues and they are dealt in the following paragraphs. The petitioner has submitted rejoinders to the replies of UPPCL and PSPCL vide rejoinders dated 11.8.2014 and 31.3.2015. The submissions made by the respondents and the petitioner have been dealt in relevant paragraphs of this order.

10. The petition was heard on 3.12.2013. The representative of PSPCL submitted that as per the Investment Approval, the scheme includes the Agra-Sikar 400 kV D/C Quad line, Sikar-Jaipur 400 kV D/C line, line reactors of Agra-Sikar line at both ends

and Bus reactor at Sikar. The petitioner has filed the instant petition seeking transmission tariff for Agra-Sikar line without commissioning the Sikar-Jaipur line. The transmission system is incomplete and the actual benefits of the system would accrue only after completion of Agra-Sikar-Jaipur line and the benefits from the Agra-Sikar line get reduced due to non-commissioning of the Sikar-Jaipur line. He submitted that the petitioner has claimed transmission charges for 2 nos. of line bays at Sikar end for the Agra line without commissioning the transmission line. The beneficiaries have not consented to operate the line reactors at Sikar as Bus reactors and the Investment Approval does not envisage operation of the line reactors at Sikar as Bus reactor. The petitioner has not given justification for operating the line reactors as Bus reactors, in addition to the existing 80 MVAR Bus reactor. The representative of PSPCL requested the Commission to direct the petitioner to submit data to show that the 80 MVAR Bus reactor and the 2X50 MVAR line reactors at Sikar are simultaneously in service to control the high voltage at Sikar. He also requested the Commission to direct the petitioner to submit the petitioner's Board approval for operating the line reactors as bus reactors at Sikar.

11. Taking into consideration the submissions made by PSPCL, the petitioner was directed to submit the following:-

(a) Reasons for using “2 Nos. 400 kV line bays for 400 kV D/C Agra-Sikar line including 2 Nos. 50 MVAR Line Reactors” under Bus Reactor operation mode at 400/220 kV Sikar Sub-station and how the system voltage has improved by such use? and

(b) As Sikar-Jaipur Transmission Line was not being commissioned along with the Agra-Sikar Line, utilization of Agra-Sikar Line in the absence of Sikar-Jaipur Line.

12. The petitioner vide affidavit dated 11.12.2013 with regard to (a) above submitted that bus reactor is normally utilized for controlling high voltages and also submitted the day wise average voltage profile of Sikar 400/220 kV Sub-station from August 2013-November 2013 to establish average voltage of about 417 kV (within the range of 407 kV-425 kV) at Sikar Sub-station against the desired 400 kV and that without these reactors, the voltage at Sikar Sub-station would have been higher. Thus, the line reactors were utilized as bus reactors to control the bus voltage. As regards (b) above, the petitioner submitted that for transfer of additional power from Sasan and Mundra, the system originally conceived during the 21st Standing Committee Meeting of Northern Region held on 3.11.2006 was as follows:-

i. New 400/220 kV 2x315MVA sub-station at Reengus (or Alwar) with 220 kV D/C line interconnecting to 220 kV sub-station
ii. Reengus (or Alwar)-Jaipur PG 400 kV D/C
iii. Reengus (or Alwar)-Ratangarh 400 kV D/C

However, during the 22nd Standing Committee Meeting of NR held on 12.3.2007, RRVPNL requested that Sikar would be a better location than Reengus considering the proximity of Sikar to the load center. It was agreed in the Standing Committee that Sikar would be a better option. Accordingly, the petitioner planned the 400/220 kV sub-station at Sikar as a load centre. Thus, the system was conceived envisaging that through Agra-Sikar line, the power from Agra would meet the local load of Sikar and would also be transferred to other load centers in the State of Rajasthan. As

Sikar Sub-station along with its transformation capacity and 220 kV feeders is already commissioned, it would help in meeting the load of Sikar, when Agra-Sikar line would be commissioned, the purpose for which it was envisaged. Further, as Sikar is connected to Neemrana, a load center of Rajasthan through a 400 kV D/C line, the commissioning of Agra-Sikar line would also help in meeting the power requirement of Neemrana and its nearby areas. Thus, the Agra-Sikar 400 kV D/C would fulfill its functional requirement i.e. improve the power supply to the State of Rajasthan, from the day of its commissioning.

13. We have considered the submissions of the petitioner and PSPCL. The petitioner has not submitted the voltage profile at Sikar Sub-station before commissioning of 2x50 MVAR line reactors and the status of 80 MVAR bus reactors each at Sikar and Neemrana. Similarly, the tap position of ICTs at Sikar Sub-station has not been submitted by the petitioner, which is essential to control the voltage as the system commissioned by the petitioner was in radial mode. Usually, operational issues like use of line reactors as bus reactors are discussed in the OCC meeting of NRPC. However, the petitioner has not submitted any documentary proof to show that the problem of over voltage at Sikar Sub-station was discussed in the RPC leading to use of line reactors as bus reactors. Thus, in the absence of technically justified submissions of the petitioner on the issue of line reactor to be used as bus reactor for a radial system without the commissioning of Agra-Sikar and Sikar-Ratangarh lines, we are not inclined to allow the COD of Asset-B from 1.8.2013. Further, technically COD of the line reactor and line bays has to be on the same date as that of the COD of the lines, which was achieved on 1.1.2014. However, the petitioner is at liberty to submit a detailed rejoinder to the issues raised by PSPCL in

its replies, voltage profile of Sikar Sub-station from 1.6.2013 to 31.8.2013, status of bus reactor along with tap position of ICTs at Sikar & Neemrana Sub-stations and details of capital cost of Asset-B as on 1.1.2014 at the time of truing-up petition for a review by the Commission.

14. Having heard the representatives of the respondents, the petitioner and perused the material on record, we proceed to dispose of the petition.

Capital cost

15. Regulation 7(1) of the 2009 Tariff Regulations so far as relevant 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."

16. The details of apportioned approved cost, actual expenditure incurred as on date of commercial operation and additional capital expenditure incurred/projected to be incurred for the period upto 31.3.2014 submitted for the instant assets are as follows:-

(₹ in lakh)

Particulars	Apportioned approved cost	Capital cost incurred as on actual COD	Additional Capitalisation 2013-14	Total estimated completion cost
Asset-A	62999.19	61313.47	4448.39	65761.85
Asset-B*	2078.29	1240.09	213.12	1453.20

*Capital cost of Asset-B submitted as at 1.8.2013 has been considered now subject to submission of details and review at the time of truing-up petition.

Time over-run

17. As per the investment approval dated 10.12.2009, the instant assets were to be commissioned within 32 months from the date of investment approval i.e. by 9.8.2012 say 1.9.2012. In the instant case, Asset-A and Asset-B were commissioned on 1.1.2014 and 1.8.2013 respectively. Thus, there is a delay of 16 months and 11 months in case of Asset-A and Asset-B respectively. As discussed in para 13 above, the COD of the line reactor and line bays has to be on the same date as that of the COD of the lines. In the instant case, the line was commissioned on 1.1.2014 and therefore the COD of the line reactor, line bays and the line is considered as 1.1.2014. Accordingly, the tariff of the instant assets has been computed considering the COD as 1.1.2014, though Asset-B has been actually commissioned on 1.8.2013.

18. UPPCL has submitted that there is time over-run of 16 months and 11 months in the case of Asset-A and Asset-B respectively. BRPL has submitted that the petitioner is well conversant with the problems encountered during the construction of the transmission lines and has decided the completion period of 32 months. BRPL has submitted that the petitioner has claimed that the delay in the execution of the assets has been on account of wrong anticipation by the petitioner that the line will pass through Sariska Tiger Sanctuary. However, the time over-run is entirely attributed to the slackness in project management for which the petitioner is solely

responsible. BRPL further submitted that there are no specific regulations to deal with the issue related to the time over run related costs and the issue of time over-run should be dealt as per the principles laid down by Hon'ble Tribunal for Electricity in its judgment dated 27.4.2011 in Appeal No. 72 of 2010 (MSPCGL Vs MERC & other). As per the principles laid down in the said judgement and the reasons furnished by the petitioner for the time over-run, the petitioner is responsible for the time over-run and hence the entire cost of time over-run including the IDC and IEDC should be borne by the petitioner.

19. The petitioner was directed vide letter dated 2.1.2014 to submit the information regarding delay in the commissioning of the instant assets. The petitioner, vide affidavit dated 30.6.2014, has submitted reasons for time over-run along with documentary proof and detailed chronology of events. The petitioner has attributed the time over-run for the delay in issue of NOC by National Highways Authority of India (NHAI) and Railway Authorities. The justification/reasons submitted by the petitioner for the time over-run are as under:-

<u>Delays in issue of NOC from NHAI and Railways</u>

(i) Delay in obtaining NOC from (NHAI) for over head crossing of transmission line on National Highways in the case of NH-8, NH-11 (Agra-Jaipur Highway) and NH-3 (Agra-Gwalior Highway) was of 26 months, 7 months and 8 months respectively.

(ii) Delay in obtaining NOC for Railway crossings took 4 to 20 months as the subject assets involved number of railway crossing for which permission from Railways is required.

RoW constraints

During laying of 400 kV Agra-Sikar line, there were ROW constraints at location no. 944, 943 and 869. The matter was taken up with District Collector vide letter dated 30.9.2013 and persistent follow up was done for resolution of the issue. However, the issue continued despite settlement till the end of December 2013. The subject asset was commissioned on 1.1.2014. The whole process took around four months. The petitioner further submitted that as the Agra-Sikar line got delayed for the reason of RoW constraints, considering the system requirement, the line reactor required for this line was charged as Bus Reactor at Sikar and put under commercial operation on 1.8.2013 to control the persistent high voltage.

20. The Commission vide RoP dated 26.8.2014 further directed the petitioner to submit the documentary proof of approval given by appropriate authority for re-routing of the transmission line on account of the Sariska Tiger Sanctuary and the schedule for application in respect of highway and railway crossing clearances and the time frame envisaged for getting these clearances along with actual date of application and receipt thereof along with documentary evidence and efforts made for getting the clearances expedited.

21. The petitioner vide affidavit dated 16.10.2014 has submitted as follows:-

(a) As regards the approval given by appropriate authority for re-routing of the transmission line because of the Sariska tiger Sanctuary, the Ministry of Environment & Forest (MoEF), New Delhi vide circular dated 4.5.2001, directed all States not to submit any proposal for diversion of forest land in

National Park and Sanctuaries under the Forest (Conversation) Act 1980. The Hon'ble Supreme Court of India vide its judgment dated 28.3.2008 has refixed the rate of NPV and directed that the use of forest land falling in National Parks/Wildlife Sanctuaries will be permissible only in totally unavoidable circumstances for public interest projects and after obtaining permission from the Hon'ble Court. Such permissions are to be considered on payment of an amount equal to ten times in the case of national Parks and five times in the case of Sanctuaries respectively of the NPV payable for such area. MoEF, New Delhi had also issued circular vide letter No.5/3/2007-FC dated 5.2.2009 and advised the use of forest land in National Park/Wild life area will be permissible only in totally unavoidable circumstances. Accordingly, the petitioner was advised by forest officials to avoid routing of line through Sariska Tiger Reserve, as other feasible routes avoiding through Sariska Tiger Reserve was available they were not in position to certify that route passing through Tiger Reserve is unavoidable. Accordingly, in order to abide the direction of Hon'ble Supreme Court and the direction of MoEF, finalized the alternate route avoiding Sariska Tiger Reserve.

(b) There is no defined time frame for getting clearance from Railway authorities, however, in general average time taken for getting the clearance from Railway authorities is around 5 to 8 months. The details of railway crossings and time taken for clearance from the concerned authorities are 4 to 20 months. Further, documents related to the actual date of application and receipt of clearance has already been submitted earlier in an affidavit dated 30.6.2014.

22. We have considered the submissions made by the petitioner and the respondents. The MoEF circulars dated 4.5.2001 and 5.2.2009 and the Hon'ble Supreme Court's judgement dated 28.3.2008, advising use of forest land in National Parks and Wild life areas only in totally unavoidable circumstances, were in existence much prior to the Investment Approval of the instant project dated 10.12.2009. The petitioner should have been aware at the time of planning the project that the instant line passes through the Sariska Tiger Sanctuary and should have taken cognizance of the judgement of the Hon'ble Supreme Court and the circulars issued by MoEF. The petitioner has failed to take into cognizance of the circulars issued by MoEF and the judgement of the Supreme Court at the planning stage and when confronted with the problem at the execution stage, the petitioner re-routed the transmission line to avoid the Tiger Sanctuary. The failure on the part of the petitioner to be prudent at the time of planning, necessitated rerouting of the line at the time of implementation, leading to time over-run. We are of the view that the petitioner with a vast experience in constructing transmission systems has failed to be prudent at the time of planning the instant lines and is solely responsible for the time over-run.

23. It is further observed that the petitioner has not explained why there was a huge gap between the date of investment approval and the date of applying for NoC from NHAI and Railways. Once it is known that the transmission will cross the highways and railways, the petitioner should have made efforts from the beginning that necessary approval are in place and the project is executed in time. The petitioner applied for the NOC on 18.7.2011, 10.1.2012 and 12.9.2012 for NH-8, NH-11 and NH-3 respectively. Similarly, in case of Railways, the petitioner has applied

for NOC only during 2011 and 2012 i.e. starting from April 2011 to September 2012. The petitioner in its submission dated 16.10.2014 has also referred to order dated 19.5.2014 in Petition No. 284/2010, wherein the Commission had earlier condoned the delay due to delay in getting railway clearances. A careful perusal of the said order indicates that the delay was condoned as the time taken by the Railway authorities was unusually longer at 20 months as against the earlier cases wherein the clearances were given within a time frame of 5 to 8 months. However, the application was also made by the petitioner, after a gap of 2 years and 7 months from the date of Investment approval. Thus, in view of such inordinate delay in applying for clearances, the petitioner in the said order was also advised by the Commission to initiate action for obtaining Railway and Forest clearances in all future cases immediately after the Investment Approval is issued. However, the petitioner has failed to do so in the instant case and there is delay in applying for railway clearances by 16 to 33 months. Moreover, out of seven clearances, in two instances of Single Broad Gauge Agra-Bateshwar track and Alwar-Mathura Broad Gauge, the petitioner has applied for clearance on 4.9.2012 and 10.9.2012 respectively, after the scheduled date of commercial operation i.e. 1.9.2012 and no reasons for delay in applying for clearances have been submitted by the petitioner. As such, we are not inclined to condone the delay on account of delays in getting the NOC from NHAI and the Railway authorities.

24. The petitioner has further submitted that RoW constraints in the form of obstruction by the villagers from September, 2013 to December, 2013 led to time over-run. The petitioner has also submitted the correspondence made to pursue the case with the District Collector, Superintendent of Police and the ADM in this regard.

We are of the view that there was RoW constraints and that the petitioner made all possible efforts to get the matter settled. Hence, we are inclined to condone the time over-run of 4 months out of 16 months of time over-run in the case of Asset-A. As regards Asset-B, the petitioner has not submitted any documentary proof in support of its claim for time over-run. The petitioner has submitted that the Reactors at Sikar Sub-station were to be commissioned to control the over voltage and as such the petitioner should have commissioned the Reactors at Sikar Sub-station earlier taking the approval of the NRPC. We are of the view that there was no hindrance in commissioning of Reactors at Sikar Sub-station and the petitioner should have commissioned the Reactor much earlier taking into the consideration the voltage problem. As the petitioner has failed to do so, we are not inclined to condone the time over-run of 11 months in case of Asset-B.

Cost over-run

25. The total estimated completion cost falls within the apportioned approved cost in case of Asset-B whereas the same exceeds in the case of Asset-A as compared to original apportioned approved cost estimates. The petitioner was directed vide letter dated 10.3.2014 to submit approved revised cost estimate (RCE), if any. The petitioner, vide affidavit 8.4.2014 submitted that the estimated completion cost for the commissioned assets under the approved project is ₹92505 lakh and is within the approved cost of ₹121683 lakh, hence, RCE is not required to be obtained. The petitioner's submission in this regard is not tenable as Appellate Tribunal for Electricity ("The Tribunal") in its order dated 28.11.2013 in Appeal No. 165 of 2012 and subsequently, the Commission, vide its order dated 18.2.2014 in Petition No. 216/TT/2012, has considered the apportioned approved cost of individual asset for

restricting the capital expenditure due to cost over-run for the purpose of tariff determination.

26. UPPCL has submitted that there is cost over-run of ₹1864 lakh as the total estimated cost of both assets is ₹66940 lakh against the apportioned approved cost of ₹65077 lakh. UPPCL has submitted that the petitioner should explain in detail, the increase in cost of various items like Earth-wire, Insulators, Hardware Fittings, Conductor and Earth-wire accessories, Switchgear, Bus-bars etc. BRPL has also submitted that there is cost over-run in the case of Asset-A and although there is no overall cost over-run in the case of Asset-B, there are cost over-runs in various elements. PSPCL has submitted that the list of assets has been duplicated by showing 386 km line twice, which needs to be corrected to ensure correct O & M expenses are allowed.

27. There is cost variation in certain elements and accordingly the petitioner was directed vide letter dated 2.1.2014 to submit detailed reasons/justification for cost variation along with bench marking data. The petitioner vide affidavit dated 30.6.2014 submitted the same as under:-

S. No.	Elements	% variation	Reason
1.	Preliminary investigation, RoW, forest clearance, PTCC general civil work etc.	311.5	Payment of crop compensation of around Rs 5 Cr.
2	Hardware fitting	27.1	Increase in line length from 320 km to 392 kms. Total variation in line length is around 22%. In 2008 after walkover survey initial line length was envisaged 320 kms. But after detailed survey in 2010 it was found that the line route was through "Sariska Tiger Sanctuary" on its way re-routing of the transmission lines was done subsequently, the line length increased.
3	Conductor & earth-wire accessories	37.0	
4	Erection, stringing and civil works including foundation	22.5	
5	Switchgear (CT,PT, CB, Isolators etc)	71.0	Payments were made in EURO/SEK (As per prevailing exchange rate) FR cost was considered for supply from India.
6	Control relay & protection panel	46.6	Higher bid cost and based on actual requirement.

7	Bus-bars/conductor/ insulators	127.3	
8	Outdoor lighting	212.5	
9	Power & Control cable and Misc common equipments (DG+ FF etc)	150.0	
10	Misc civil works	706.8	Apportioned cost which included cost of Sikar bays. Variation for Sikar bays cannot be considered in isolation. As per FR total cost for civil works pertains to Sikar sub-station is ₹1296 Lakh and expenditure incurred is ₹1530 Lakh so final variation is just 17% which is due to actual bid prices.

28. As regards 30% over estimation in case of Asset-B, the petitioner has submitted that in FR, IDC and IEDC cost were envisaged/assessed/estimated based on the previous data, however due to low bid, cost specially in switchgear items, the actual cost is lower. In the case of Asset-A, the cost escalation of 4.39% is mainly due to increase in length of the line by 20.6% i.e. from 320 km to 386 km and is based on actual bid price. The petitioner has submitted that benchmarking data shall be submitted after commissioning of all the assets in the project.

29. The cost estimates of the petitioner are not realistic, though the petitioner has stated to have taken various steps to make the cost estimates realistic, in actuality there continues to be wide variation between the FR cost and the actual cost. We are of the view that the petitioner should analyze the reasons for such huge variations and come out with the methodologies or procedure for preparation of cost estimates which are realistic and do not vary widely from the actual expenditure. The petitioner is once again directed to adopt a prudent procedure while estimating the cost of different elements of the transmission projects. As regards, bench marking data, the petitioner has not submitted the same despite specific directions in this regard. The petitioner is once again directed to submit the data positively in case of all petitions in future.

Treatment of IDC and IEDC

30. The details of the IDC claimed by the petitioner are as under:-

(₹ in lakh)

Particulars	Amount
Asset-A	3933.48
Asset-B	75.24

IDC claimed has been deducted from the element cost as on COD of the respective assets on pro-rata basis.

31. The petitioner has not submitted complete information regarding IDC computation in support of its claim as such it is not possible to ascertain the claim of IDC. Accordingly, IDC has been verified with the loan deployed in the instant petition. As per available data, IDC has been considered as on COD on cash basis with a presumption that interest has been paid on time without any default. It has been noted from the Form-13 submitted in respect of the instant assets that the petitioner has deployed foreign as well as domestic loans. No information has been submitted regarding the interest payment date and interest rate for foreign loans, as such the same have not been considered while determining the admissible IDC. In the case of Asset-A, total IDC on cash basis works out to ₹54.01 lakh out of which IDC discharged as on COD is ₹51.51 lakh. However, in the case of Asset-B, IDC claim of ₹75.24 lakh is in order and accordingly the same has been considered. IDC on cash basis has been added to the element cost as on COD on pro-rata basis in the respective element of the asset. In the absence of required information un-discharged liability of IDC would be considered once it is discharged subject to prudence check and submission of adequate information at the time of truing up.

32. As discussed in para 24, the delay of 12 months and 11 months in the case of Asset-A and Asset-B respectively has not been condoned. Accordingly, IDC

computed on cash basis has been further worked out. Details of the IDC to be allowed after adjusting IDC pertaining to delayed period are as follows:-

Asset-A

IDC for the delayed period of 12 months i.e. 1.1.2013 to 31.12.2013 works out to ₹11.33 lakh on cash basis as on COD. Accordingly, the amount of ₹11.33 lakh has been deducted from the IDC of ₹51.51 lakh as on COD, considered on cash basis to work out the admissible IDC of ₹40.18 lakh for the purpose of determination of tariff.

Asset-B

IDC for the delayed period of 11 months works out to ₹13.98 lakh. Accordingly, the amount of ₹13.98 lakh has been deducted from the IDC of ₹75.24 lakh as on COD to work out the admissible IDC of ₹61.26 lakh for the purpose of determination of tariff.

33. Similarly, the petitioner has not submitted any supporting documents in relation to the IEDC claim. In the absence of detailed computation of IEDC, the percentage on Hard Cost indicated in the Abstract Cost Estimate has been considered as the allowable limit of the IEDC. In the instant petition, 5% IEDC has been claimed by the petitioner in the Abstract Cost Estimate and IEDC claim is below 5% of the hard cost as on COD. Hence, IEDC claimed by the petitioner has been allowed. However, IEDC has been reduced due to disallowance of time over-run. The details of the IEDC claimed and worked out for the purpose of tariff are as under:-

(₹ in lakh)

Particular	Asset-A	Asset-B
Claimed as on COD	1763.29	30.84
Disallowed due to time overrun	440.82	7.89
Admissible IEDC as on COD	1322.47	22.95

Admissible IEDC has been adjusted in proportion to the element cost.

34. As per the 2009 Tariff Regulations, the claim of IDC and IEDC is allowable on cash basis and any undischarged IDC/IEDC on the date of commercial operation can be claimed as add-cap upto cut-off date, but the petitioner has not submitted sufficient details. The petitioner is directed to submit detailed working of loan deployed, date of disbursement, supporting documents for exchange rates and interest rates for each interest payment dates till the date of commercial operation and revised loan agreement, if applicable and actual cash expenditure in Form 14A in respect of IDC and month-wise/head wise details of the actual IEDC paid/incurred on cash basis at the time of truing-up petition for prudence check and review of the Commission.

Treatment of Initial Spares

35. As per Regulation 8 (iv) (a) of 2009 Tariff Regulations, the ceiling norm for initial spares for sub-station & transmission line is 2.5% and 0.75% respectively of original project cost. The petitioner in the case of Asset-A has claimed initial spares of ₹474.95 lakh & ₹0.58 lakh pertaining to transmission line and sub-station cost and ₹20.25 lakh, pertaining to sub-station in the case of Asset-B. The petitioner’s claim is within the ceiling norms specified in the 2009 Tariff Regulations and accordingly it is allowed.

36. However, the capital cost of both the assets has been adjusted due to consideration of IDC on cash basis and thereby reduction in capital cost due to time over-run. The details of the capital cost claimed and as worked out on cut-off date

along with the initial spares, but subject to review at the time of truing-up petition on the submission of actual additional capital expenditure and details of IDC/IEDC as directed at para 34, is as follows:-

(₹ in lakh)

Particulars	Elements	Capital cost claimed as on cut-off date	Initial spares claimed	Capital cost worked out as on cut-off date	Initial spares considered
Asset-A	T/Line	63326.76	474.95	59159.88	443.70
	Sub-station	2435.09	0.58	2267.85	0.54
Asset-B	Sub-station	1453.20	20.25	1431.32	19.94

Capital cost as on COD

37. The details of the capital cost considered as on COD after necessary adjustments in respect of cost over-run, time over-run, capitalization of IDC/IEDC and admissible initial spares, which is subject to review on submission of IDC/IEDC computation and payment details on cash basis along with audited additional capital expenditure at the time of truing-up petition, are as follows:-

Asset-A

(₹ in lakh)

Particulars	Capital cost as on COD as per Management Certificate dated 26.3.2014 (affidavit dated. 8.4.2014)	Admissible capital cost considering adjusting IDC and time overrun impact
Capital Expenditures as on COD	**1.1.2014**	
Freehold Land	-	-
Leasehold Land	-	-
Building & Other Civil Works	-	-
Transmission Line	58947.47	54780.59
Sub-Station Equipments	2265.29	2105.16
PLCC	100.71	93.59
Total	**61313.47**	**56979.34**

Asset-B

(₹ in lakh)

Particulars	**Capital cost as on COD as per Auditor's certificate dated 8.10.2013 (as per petition)**	**Admissible capital cost considering adjusting of IDC and time over-run impact**
Capital Expenditures as on COD	**1.8.2013**	
Freehold Land	16.95	16.95
Leasehold Land	-	-
Building & Other Civil Works	21.19	20.81
Transmission Line	-	-
Sub-Station Equipments	1168.70	1147.80
PLCC	33.24	32.65
Total	**1240.08**	**1218.21**

Projected additional capital expenditure

38. Clause (1) of Regulation 9 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:"

39. Clause (11) of Regulation 3 of the 2009 Tariff Regulations defines "cut-off" date as under:-

> "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 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".

40. As per the above definition, cut-off date in respect of the transmission assets in the instant petition falls in the 2014-19 tariff period.

41. The petitioner has claimed additional capital expenditure of ₹4448.39 lakh and ₹213.11 lakh in respect of Asset-A and Asset-B respectively from the respective CODs to 31.3.2014. The additional capital expenditure claimed is for balance and retention payment. We allow the additional capital expenditure as claimed by the petitioner. The actual completed cost shall be reviewed at the time of truing up subject to submission of detailed information in respect of IDC/IEDC as directed vide para 34 of this order. The petitioner is directed to submit the list of deferred liabilities, if any, at the time of truing-up petition.

42. The capital cost as on the date of commercial operation and as on 31.3.2014 is as under:-

(₹ in lakh)

Particulars	Capital cost as on COD	Additional capitalisation 2013-14	Total estimated cost
Asset-A	56979.34	4448.39	61427.73
Asset-B	1218.21	213.11	1431.32

Debt-Equity ratio

43. Regulation 12 of the 2009 Tariff Regulations provides as follows:-

> "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."

44. The capital cost on the dates of commercial operation arrived at as above and additional capital expenditure allowed have been considered in the normative debt-equity ratio of 70:30. Details of debt-equity as on date of commercial operation and 31.3.2014 considered on normative basis are as given under:-

(₹ in lakh)

Particulars	**Asset-A**					
	As on COD		**Additional capitalisation for 2013-14**		**As on 31.3.2014**	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**
Debt	39885.54	70.00	3113.87	70.00	42999.41	70.00
Equity	17093.80	30.00	1334.52	30.00	18428.32	30.00
Total	**56979.34**	**100.00**	**4448.39**	**100.00**	**61427.73**	**100.00**
Particulars	**Asset-B**					
	As on COD		**Additional capitalisation for 2013-14**		**As on 31.3.2014**	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**
Debt	852.75	70.00	149.18	70.00	1001.92	70.00
Equity	365.46	30.00	63.93	30.00	429.40	30.00
Total	**1218.21**	**100.00**	**213.11**	**100.00**	**1431.32**	**100.00**

Return on equity

45. 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% 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".

46. The petitioner's prayer to recover the shortfall or refund the excess Annual Fixed Charges, on account of 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.

47. The details of return on equity worked out are as follows:-

(₹ in lakh)

Particulars	Asset-A 2013-14 (pro-rata)	Asset-B 2013-14 (pro-rata)
Opening equity	17093.80	365.46
Addition due to additional capital expenditure	1334.52	63.93
Closing equity	18428.32	429.40
Average equity	17761.06	397.43
Return on equity (Base Rate)	15.50%	15.50%
Tax rate for the year 2008-09 (MAT)	11.330%	11.330%
Rate of Return on Equity (Pre Tax)	17.481%	17.481%
Return on Equity (Pre Tax)	**776.20**	**17.37**

Interest on loan

48. Regulation 16 of the 2009 Tariff Regulations provides as hereinafter:-

"16. **Interest on loan capital** (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."

49. In keeping with the provisions of Regulation 16 of the 2009 Tariff Regulations, the petitioner's entitlement to interest on loan has been calculated on the following basis:-

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

(b) The repayment for the tariff period 2009-14 has been considered to be equal to the depreciation allowed for that period;

(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;

(d) 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; and

(e) As per Regulation 16(5) only actual loans have been considered for computation of weighted average rate of interest.

50. UPPCL has submitted that the petitioner has mentioned about Bonds with weighted average rate of interest of 5.9784% and therefore it is premature to talk of floating rate of interest. The petitioner has clarified that in the instant petition the funding is through Bonds and IBRD V, therefore it has prayed for floating rate of interest. The interest on loan has been calculated on the basis of prevailing rate of actual loan available on the date of commercial operation. Any change in rate of interest subsequent to the date of commercial operation will be considered at the time of truing-up petition.

51. Detailed calculations in support of the weighted average rates of interest have been given at Annexure-I and II to this order.

52. Based on the above, interest on loan has been calculated and is as given under:-

(₹ in lakh)

Particulars	**Asset-A**	**Asset-B**
	2013-14 (pro-rata)	**2013-14 (pro-rata)**
Gross Normative Loan	39885.54	852.75
Cumulative Repayment upto previous year	-	-
Net Loan-Opening	39885.54	852.75
Addition due to additional capital expenditure	3113.87	149.18
Repayment during the year	781.73	17.11
Net Loan-Closing	42217.68	984.81
Average Loan	41051.61	918.78
Weighted Average Rate of Interest on Loan	1.6980%	5.9656%
Interest	**174.27**	**13.70**

Depreciation

53. Regulation 17 of the 2009 Tariff Regulations provides as under:-

> “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."

54. The Asset-A and Asset-B in the instant petition were commissioned on 1.1.2014 and 1.8.2013 respectively. The date of COD has been considered as 1.1.2014 for tariff purpose in the case of Asset-B. As such, the useful life in the case of Asset-B will start from 1.8.2013 but the depreciation has been worked out from 1.1.2014. However, the date of commercial operation of the instant asset falls in financial year 2013-14. Thus, depreciation has been calculated annually, based on Straight Line Method and at rates specified in Appendix-III to the 2009 Tariff Regulations. Accordingly, depreciation has been worked out on the basis of capital expenditure as on the date of commercial operation and additional capital expenditure incurred/projected to be incurred thereafter, wherein depreciation for the first year has been calculated on *pro-rata* basis for the part of year.

55. Based on the above, the depreciation has been considered as given under:-

(₹ in lakh)

Particulars	Asset-A 2013-14 (pro-rata)	Asset-B 2013-14 (pro-rata)
Opening Gross Block	56979.34	1218.21
Addition due to Projected Additional Capitalisation	4448.39	213.11
Closing Gross Block	61427.73	1431.32
Average Gross Block	59203.54	1324.76
Rate of Depreciation	5.2817%	5.1677%
Depreciable Value	53283.18	1177.03
Remaining Depreciable Value	53283.18	1177.03
Depreciation	**781.73**	**17.11**

Operation & Maintenance Expenses (O&M Expenses)

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

Norms for AC and HVDC lines:

(₹ lakh per km)

Element	2009-10	2010-11	2011-12	2012-13	2013-14
Double Ckt. (Bundled conductor with four or more sub-conductors)	0.940	0.994	1.051	1.111	1.174

Norms for Sub-stations:

(₹ lakh per bay)

Bay	2009-10	2010-11	2011-12	2012-13	2013-14
400 kV	52.40	55.40	58.57	61.92	65.46

57**.** As per the 2009 Tariff Regulations, allowable O&M expenses for the instant assets are as under:-

(₹ in lakh)

Particulars		Element	2013-14 (pro-rata)
Asset-A	Transmission line	386 km, 400 kV Agra-Sikar (D/C Quad) line	113.291
	Sub-stations	Sikar-I, 400 kV line bay	16.365
		Sikar-II, 400 kV line bay	16.365
		Total-A	**146.021**
Asset-B	Sub-stations	Agra-I, 400 kV line bay	16.365
		Agra-II, 400 kV line bay	16.365
		2 nos. of 400 kV 50 MVAR switchable line reactor at Agra	32.730
		Total-B	**65.460**

58. The petitioner has submitted that O&M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the years of tariff period. 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 may approach the Commission for suitable revision in norms for O&M Expenses in case the impact of wage hike with effect from 1.1.2007 is more than 50%. BRPL has submitted that any increase in employee cost has already been covered in the norms for O&M expenses by the Commission and any further increase due to wage revision must be taken care of by improvement in the productivity levels by the petitioner so as not to burden the beneficiaries over and above the provisions already made in the 2009 Tariff Regulations. BRPL has also submitted that the contention of the petitioner related to levies, duties, cess or any other statutory taxes is concerned, such charges are generally a part of O & M expenses.

59. 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.

<u>Interest on working capital</u>

60. The petitioner is entitled to claim interest on working capital as per the 2009 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) 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.

(ii) O & M Expenses

Regulation 18 (1) (c) (iii) of the 2009 Tariff Regulations provides for operation and maintenance expenses for one month to be included in the working capital. The petitioner has claimed O&M Expenses for 1 month of the respective year. This has been considered in the working capital.

(iii) Receivables

As per Regulation 18 (1) (c) (i) of the 2009 Tariff Regulations, receivables as a component of working capital will be equivalent to two months of fixed cost. The petitioner has claimed the receivables on the basis of 2 months of transmission charges in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months of transmission charges.

(iv) Rate of Interest on Working Capital

In accordance with the 2009 Tariff Regulations, SBI Base Rate as on 1.4.2013 i.e. 9.70% Plus 350 bps (13.20%) has been considered as the rate of interest on working capital for the instant assets. The interest on working capital for the assets covered in the petition has been worked out accordingly.

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

(₹ in lakh)

Particulars	Asset-A 2013-14 (pro-rata)	Asset-B 2013-14 (pro-rata)
Maintenance Spares	87.61	39.28
O & M Expenses	48.67	21.82
Receivables	1283.38	78.84
Total	**1419.67**	**139.94**
Rate of Interest	13.20%	13.20%
Interest	**46.85**	**4.62**

Transmission charges

62. The transmission charges being allowed for the instant assets are summarized hereunder:-

(₹ in lakh)

Particulars	Asset-A 2013-14 (pro-rata)	Asset-B 2013-14 (pro-rata)
Depreciation	781.73	17.11
Interest on Loan	174.27	13.70
Return on Equity	776.20	17.37
Interest on Working Capital	46.85	4.62
O & M Expenses	146.02	65.46
Total	**1925.07**	**118.26**

Filing fee and the publication expenses

63. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. The petitioner has clarified that reimbursement of expenditure has been claimed in terms of Regulation 42 of the 2009 Tariff Regulations. BRPL has submitted that these expenses can be allowed at the discretion of the Commission. 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

64. 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. The petitioner has clarified that the licence fee has been a new component of cost to the transmission licence under O&M stage of the project and has become incidental to the petitioner only from 2008-09. UPPCL has submitted that the license fee claimed by the petitioner is not tenable hence the Commission should not allow it. 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

65. 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. The petitioner has clarified that if notifications regarding

granting of exemption to transmission service are withdrawn at a later date, the beneficiaries shall have to share the service tax paid by the petitioner. Both UPPCL and BRPL have raised this issue as it is not tenable. We consider petitioner's prayer pre-mature and accordingly this prayer is rejected.

Sharing of Transmission Charges

66. The billing, collection and disbursement of the transmission charges approved 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.

67. This order disposes of Petition No. 300/TT/2013.

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

Annexure-I

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	**2013-14**
1	**IBRD V**	
	Gross loan opening	42744.43
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	42744.43
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	42744.43
	Average Loan	42744.43
	Rate of Interest	1.67%
	Interest	**713.83**
	Rep Schedule	
2	**Bond XXXIII**	
	Gross loan opening	25.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	25.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	25.00
	Average Loan	25.00
	Rate of Interest	8.64%
	Interest	**2.16**
	Rep Schedule	12 Annual instalments from 8.7.2014
3	**Bond XXXIV**	
	Gross loan opening	75.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	75.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	75.00
	Average Loan	75.00
	Rate of Interest	8.84%
	Interest	**6.63**
	Rep Schedule	12 Annual instalments from 21.10.2014
4	**Bond XXX**	
	Gross loan opening	75.00
	Cumulative Repayment upto DOCO/previous year	6.25
	Net Loan-Opening	68.75
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	68.75
	Average Loan	68.75
	Rate of Interest	8.80%
	Interest	**6.05**

	Rep Schedule	12 Annual instalments from 29.9.2013
	Total Loan	
	Gross loan opening	42919.43
	Cumulative Repayment upto DOCO/previous year	6.25
	Net Loan-Opening	42913.18
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	42913.18
	Average Loan	42913.18
	Weighted Average Rate of Interest	**1.6980%**
	Interest	**728.67**

Annexure-II

(₹ in lakh)

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN		
	Details of Loan	**2013-14**
1	**IBRD V**	
	Gross loan opening	340.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	340.00
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	340.00
	Average Loan	340.00
	Rate of Interest	1.76%
	Interest	**5.98**
	Rep Schedule	
2	**Bond XXXIII**	
	Gross loan opening	140.26
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	140.26
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	140.26
	Average Loan	140.26
	Rate of Interest	8.64%
	Interest	**12.12**
	Rep Schedule	12 Annual instalments from 8.7.2014
3	**Bond XXXIV**	
	Gross loan opening	77.80
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	77.80
	Additions during the year	0.00
	Repayment during the year	0.00
	Net Loan-Closing	77.80
	Average Loan	77.80
	Rate of Interest	8.84%
	Interest	**6.88**
	Rep Schedule	12 Annual instalments from 21.10.2014
4	**Bond XXX**	
	Gross loan opening	306.00
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	306.00
	Additions during the year	0.00
	Repayment during the year	25.50
	Net Loan-Closing	280.50
	Average Loan	293.25
	Rate of Interest	8.80%
	Interest	**25.81**

	Rep Schedule	12 Annual instalments from 29.9.2013
	Total Loan	
	Gross loan opening	864.06
	Cumulative Repayment upto DOCO/previous year	0.00
	Net Loan-Opening	864.06
	Additions during the year	0.00
	Repayment during the year	25.50
	Net Loan-Closing	838.56
	Average Loan	851.31
	Weighted Average Rate of Interest	**5.9656%**
	Interest	**50.79**