

**CENTRAL ELECTRICITY REGULATORY COMMISSION**

**NEW DELHI**

**Petition No. 78/TT/2015**

**Coram:**

**Shri A.S. Bakshi, Member  
Dr. M.K. Iyer, Member**

**Date of Hearing : 23.11.2015**

**Date of Order : 30.12.2015**

**In the matter of:**

Determination of transmission tariff from date of commercial operation (COD) to 31.3.2019 for 80 MVAR line reactor of Barh-I (charged as bus reactor) at Gorakhpur Extn. and 80 MVAR line reactor of Barh-II (charged as bus reactor) at Gorakhpur Extn. under "BARH-TPS II" 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, 2014.

**And in the matter of:**

Power Grid Corporation of India Ltd.  
'SAUDAMINI', Plot No-2,  
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

**Versus**

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- 147001
7. Haryana Power Purchase Centre  
Shakti Bhawan, Sector-6, Panchkula  
Haryana- 134 109
8. Power Development Department  
Govt.of Jammu & Kashmir  
Mini Secretariat, Jammu
9. Uttar Pradesh Power Corporation Limited  
(Formerly Uttar Pradesh State Electricity Board)  
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, New 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



The following were present:

For Petitioner: Shri. Jasbir Singh, PGCIL  
Shri. Anshul Garg, PGCIL  
Shri. S.S.Raju, PGCIL  
Shri. S.K.Niranjan, PGCIL  
Shri. M.M.Mondal, PGCIL  
Shri. S.K.Venkatesan, PGCIL  
Shri. Rakesh Prasad, PGCIL  
Smt. Sangeeta Edwards, PGCIL

For Respondent: None

### **ORDER**

The present petition has been preferred by Power Grid Corporation of India Ltd. (‘the petitioner’), a transmission licensee, for determination of transmission tariff for 80 MVAR line reactor of Barh-I (charged as bus reactor) at Gorakhpur Extn. (**Asset-I**) and 80 MVAR line reactor of Barh-II (charged as bus reactor) at Gorakhpur Extn. (**Asset-II**) under ‘‘BARH-TPS II’’ in Northern Region (hereinafter referred as ‘‘transmission asset’’) from COD to 31.3.2019 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as ‘‘the 2014 Tariff Regulations’’).

2. The respondents are mostly distribution licensees or centralised power procurement companies of States, who are procuring transmission service from the petitioner, mainly beneficiaries of Northern Region.

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspaper in accordance with Section 64



of the Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. None of the respondents have filed any reply to the petition. The hearing in this matter was held on 23.11.2015. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

4. The brief facts of the case are as follows:-

- (a) The investment for the transmission asset was approved by the Board of Directors of the petitioner company vide Memorandum No. C/CP/Barh-II TPS dated 27.12.2011 for the entire scheme of “Immediate Evacuation System associated with Barh-II TPS (1320MW)” at an estimated cost of ₹90177 lakh, which included IDC of ₹5650 lakh, based on 3<sup>rd</sup> Quarter, 2011 price level. The Revised Cost Estimate (RCE) of the project was approved by the Board of Directors of the petitioner company vide Memorandum No. C/CP/RCE-ER dated 23.2.2015 with an estimated cost of ₹102528 lakh including IDC of ₹8899 lakh, based on August, 2014 price level.
- (b) The broad scope of work covered under the investment approval is as follows:-

**Transmission Line:**

Barh-II TPS Gorakhpur 400 kV D/C (Quad) line

**Sub-stations:**

- i. Extension of 400 kV Sub-station
  - a. 2 Nos. 400 kV line bays including 2 Nos. 80 MVAR line reactor
  - b. 1 No. 400 kV, 125 MVAR Bus Reactor including bays



- ii. 400 kV Switchyard at Barh (under the scope of generation switchyard of NTPC)
- (c) The transmission system was scheduled to be commissioned within 32 months from the date of investment approval. Therefore, the scheduled date of commissioning (COD) of the transmission system works out to 28.8.2014, say 1.9.2014, against which the Asset-I and Asset-II were put under commercial operation w.e.f 4.11.2014 and 2.11.2014, respectively. The details of the commissioning date of the assets covered in the instant petition are as given below:-

Asset	Name of the element	Scheduled COD as per Investment Approval	Actual COD	Delay in months
I	80 MVAR line reactor of Barh-I (charged as bus reactor) at Gorakhpur Extn.	28.8.2014	4.11.2014	2
II	80 MVAR line reactor of Barh-II (charged as bus reactor) at Gorakhpur Extn.	28.8.2014	2.11.2014	2

- (d) The Commission approved provisional tariff for the transmission assets from COD to 31.3.2015 and 2015-16 vide its order dated 17.4.2015 in Petition No. 78/TT/2015 in terms of proviso (i) of Regulation 7(7) of the 2014 Tariff Regulations.
- (e) The instant petition was filed on 13.2.2015.
- (f) The petitioner vide affidavit dated 21.11.2015 has filed the RCE and revised Auditor's Certificate along with revised tariff forms. The petitioner requested to consider the revised tariff forms for fixation of transmission tariff of both the assets.



## **ANNUAL FIXED CHARGES FOR TARIFF PERIOD 2014-19**

5. The petitioner has claimed transmission charges as under:-

### **Asset-I**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	13.20	34.65	35.85	35.85	35.85
Interest on Loan	15.84	39.29	37.51	34.19	30.89
Return on Equity	14.71	38.61	39.95	39.95	39.95
Interest on Working Capital	2.37	6.03	6.16	6.21	6.25
O & M Expenses	24.62	62.30	64.37	66.51	68.71
<b>Total</b>	<b>70.74</b>	<b>180.88</b>	<b>183.84</b>	<b>182.71</b>	<b>181.65</b>

### **Asset-II**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	14.14	36.68	38.06	38.06	38.06
Interest on Loan	17.41	42.63	40.83	37.22	33.68
Return on Equity	15.76	40.87	42.41	42.41	42.41
Interest on Working Capital	2.47	6.21	6.35	6.38	6.42
O & M Expenses	24.96	62.30	64.37	66.51	68.71
<b>Total</b>	<b>74.74</b>	<b>188.69</b>	<b>192.02</b>	<b>190.58</b>	<b>189.28</b>

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

### **Asset-I**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.04	9.35	9.66	9.98	10.31
O & M expenses	5.02	5.19	5.36	5.54	5.73
Receivables	28.87	30.15	30.64	30.45	30.28
<b>Total</b>	<b>42.93</b>	<b>44.69</b>	<b>45.66</b>	<b>45.97</b>	<b>46.32</b>
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	5.80	6.03	6.16	6.21	6.25
Pro-rata interest on Working Capital	2.37	6.03	6.16	6.21	6.25



## Asset-II

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	30.10	31.45	32.00	31.76	31.55
Total	44.18	45.99	47.02	47.28	47.59
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	5.96	6.21	6.35	6.38	6.42
Pro-rata interest on Working Capital	2.47	6.21	6.35	6.38	6.42

## Capital Cost

7. Clause (1) and (6) of Regulation 9 and Clause (1) of Regulation 10 of the 2014 Tariff Regulations provide as follows:-

**“9. Capital Cost:**(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of determination of tariff for existing and new projects.

(2) The Capital Cost of a new project shall include the following:

- a) the expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- b) Interest during construction and financing charges, on the loans (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 funds deployed;
- c) Increase in cost in contract packages as approved by the Commission;
- d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;
- e) capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;
- f) expenditure on account of additional capitalisation and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- g) adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- h) adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

...

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:

- a) The assets forming part of the project, but not in use;
- b) Decapitalisation of Asset;
- c) In case of hydro generating station any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by



the State government by following a two stage transparent process of bidding; and

- d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

Provided that any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;”

**10. Prudence Check of Capital Expenditure:** The following principles shall be adopted for prudence check of capital cost of the existing or new projects:

(1) In case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out taking into consideration the benchmark norms specified/to be specified by the Commission from time to time: Provided that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the capital expenditure, financing plan, interest during construction, incidental expenditure during construction for its reasonableness, use of efficient technology, cost over-run and time over-run, competitive bidding for procurement and such other matters as may be considered appropriate by the Commission for determination of tariff:”

8. The petitioner in its petition has submitted the apportioned approved cost, actual expenditure incurred as on date of commercial operation and additional capital expenditure incurred/projected to be incurred for the assets. Subsequently, the petitioner vide affidavit dated 21.11.2015 revised the phasing of additional capital expenditure for both the assets. The petitioner in its revised submissions for both the assets submitted that the additional capital expenditure that was earlier estimated to be incurred entirely in 2014-15 is now projected to incur in 2014-15 and 2015-16. The petitioner has also submitted the RCE approved (apportioned) cost vide its affidavit dated 7.12.2015. The completion cost for both the assets as claimed by the petitioner is as shown in the table below:-





(₹ in lakh)

Name of the element	Apportioned approved cost	RCE apportioned approved cost	Exp. up to COD	Proposed exp. for 2014-15	Proposed exp. for 2015-16	Estimated completion cost
<b>Asset-I:</b> 80 MVAR line reactor of Barh-I (charged as bus reactor) at Gorakhpur Extn. (COD: 4.11.2014)	649.78	796.05	590.85	42.59	45.60	679.05
<b>Asset-II:</b> 80 MVAR line reactor of Barh-II (charged as bus reactor) at Gorakhpur Extn. (COD:2.11.2014)	649.78	796.05	625.95	42.59	52.29	720.84
<b>Total</b>	<b>1299.56</b>	<b>1592.10</b>	<b>1216.80</b>	<b>85.18</b>	<b>97.89</b>	<b>1399.89</b>

9. The Commission vide its letter dated 16.11.2015 directed the petitioner to submit the clarification in case there has been any change in the scope of work. The Commission further sought CPM and PERT chart for the project showing complete work breakdown structure along with actual period of execution of the given assets from the start of the project till completion. The petitioner in its reply vide affidavit dated 7.12.2015 confirmed that there has been no revision in scope of work and submitted the L2 network for activities carried out in the project.

### **Cost Over-run**

10. The total estimated completion cost of Asset-I is ₹679.05 lakh, which is higher by ₹29.27 lakh as against the apportioned cost of original investment approval of ₹649.78 lakh. Further, in case of Asset-II, the estimated completion cost is ₹720.84 lakh, which is higher by ₹71.06 lakh as against the apportioned cost of original investment approval of ₹649.78 lakh. Accordingly, there is overall cost over-run of ₹100.33 lakh for both the assets as per original investment approval.



11. The petitioner in the instant petition along with other details has also submitted the management approval for the estimated completion cost of ₹679.05 lakh for Asset-I and ₹720.84 lakh for Asset-II. The petitioner submitted the Revised Cost Estimate (RCE) of ₹102528 lakh and Auditor's Certificate for the estimated completion cost of ₹679.05 lakh for Asset-I and ₹720.84 lakh for Asset-II vide affidavit dated 21.11.2015. Subsequently, the petitioner submitted the revised apportioned cost of ₹796.05 lakh for each of the asset vide affidavit dated 7.12.2015.

12. It is observed that there is cost variation in certain heads like 144% in case of Switchgear, 73% towards Bus bars/conductors/insulators, and 51% towards structure for switchyard for Asset-I, and reasons for increase in cost by 82% towards Switchgear, 73% towards Bus bars/ conductors/insulators, and 51% towards structure for switchyard for Asset-II in the instant petition. The petitioner, in the petition has submitted that the reason for such cost escalation is on account of high price of the equipment procured through open competitive bidding route. In this regard, the Commission vide its letter dated 16.11.2015 sought copies of letters of award for works involving high cost variation as listed above. The petitioner in its reply vide affidavit dated 7.12.2015 has submitted that two Letters of Award (LOA) were issued, one to M/s. CGL for reactor (supply & erection) and other to M/s. L&T for sub-station (supply & erection) with price variation clause. The petitioner also submitted that the cost variation is due to quantity and rate variation as mentioned below:-



**Asset-I****(₹ in lakh)**

Sl. No.	Particulars	Quantity estimated	Rate estimated	Quantity (actual)	Rate (actual)	Variation between actual and FR Cost	Reason for variation
1	Switchgear (CT, PT, CB, Isolator, etc.)	11	5.922	13	9.14	53.73	Rate and quantity variation
2	Bus bars/ Conductors/ Insulators	1	12.17	1	21.00	8.83	
3	Structure for switchyard	1	31.33	1	47.27	15.94	

**Asset-II****(₹ in lakh)**

Sl. No.	Particulars	Quantity estimated	Rate estimated	Quantity (actual)	Rate (actual)	Variation between actual and FR Cost	Reason for variation
1	Switchgear (CT, PT, CB, Isolator, etc.)	11	5.922	14	11.36	93.86	Rate and quantity variation
2	Bus bars/ Conductors/ Insulators	1	12.17	1	21.00	8.83	
3	Structure for switchyard	1	31.33	1	47.27	15.94	

13. The petitioner has also submitted copies of the contract agreements for the above works. Further, the petitioner has submitted that the cost variation is due to cost variation between FR and estimated cost, which is a result of rate variation due to competitive bidding. For procurement, open competitive bidding has been followed by providing equal opportunity to all eligible firms. Lowest possible market prices for the required product/ services as per detailed designing was obtained and contracts were awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions, design and site requirements. The estimates were prepared as per



well defined procedures for cost estimate. The FR cost is a broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts/ general practice. The petitioner also submitted that the FR was approved at the price level of 3rd quarter of 2011 whereas LOA was placed as per November, 2012 price level.

14. The petitioner has submitted that the price variation during execution of the project is attributable to market forces prevailing at the time of bidding process of various packages awarded for execution of project and the inflationary trend experienced during execution of the project from September, 2011 to March, 2014, as may be seen from the trend of variation in indices of various major raw materials as indicated below:-.

(₹ in lakh)						
Name of Indices	September, 2011	February 2012 (one month prior to first OBD)	March, 2013	September, 2013	March, 2014 (Completion of work)	% Increase
HG Zinc	121100	126100	132900	153700	159200	31.46%
Bloom (SBL)(150mm X 150 mm)	32480	34694	35115	35002	35186	8.33%
EC Grade Al	141000	140500	146700	157050	147717	4.76%
WPI	156.2	159.3	170.1	180.7	179.8	15.10%
CRGO (above 10 MVA)	167889	176081	156590	176924	194009	15.55%
WPI for fuel & power	168.3	176.7	191.6	210.6	213.1	26.61%
CPI	197	199	224	238	239	21.31%

15. The Commission, vide Record of Proceedings on 23.11.2015, directed the petitioner to submit justification regarding the difference in completion cost of both the assets, (80 MVAR Line Reactor) though they were of same configuration, awarded and commissioned on nearly the same day. The representative of the petitioner at the hearing had submitted that the difference is



due to the manner in which both the line reactors are connected to the bus bar and number of other equipment like CT, CVT, ICT etc. associated with it. The Commission also directed the petitioner to make the detailed submission regarding difference in cost of two assets vide letter dated 16.11.2015. The petitioner in its reply vide affidavit dated 7.12.2015 submitted that three sets of 420 kV circuit breaker which were supposed to be used in three bays, one for each bus reactor I and II and one in tie bay. As the cost of circuit breaker in the tie bay cannot be divided in two reactors, so it has booked the same under Asset-II.

16. The petitioner was directed vide letter dated 16.11.2015 to clarify whether the Board of the Company has agreed for the cost over-run and to furnish the minutes of the meeting in support of the same. The petitioner vide affidavit dated 7.12.2015 has submitted that it has already taken approval from the Board of Directors and has submitted the copy of RCE vide affidavit dated 21.11.2015.

17. We have considered the submissions of the petitioner. The petitioner has submitted that the variation in cost of certain elements is due to difference in the FR cost, award cost and price variation. We are satisfied with the justification given by the petitioner. Accordingly, the price variation is approved. As regards the price variation between the two assets, even though they are of same configuration, the petitioner has submitted that the variation is due to allocation of common equipment to Asset-II. The cost variation of the assets is allowed as it is due to allocation of common equipment to Asset-II.



### **Time Over-run**

18. As per the original investment approval dated 27.12.2011, the project was to be commissioned within 32 months from the date of investment approval and the date of scheduled completion works out to 28.8.2014. However, Asset-I and Asset-II were commissioned on 4.11.2014 and 2.11.2014 respectively. Thus, there is time over-run of 69 days for Asset-I and 67 days for Asset-II.

19. The petitioner in the instant petition has submitted that the delay of 2 months was due to various complexities, requirement of shut down involved in bay extension work in an existing Sub-station and other uncontrollable reasons. It was observed that the petitioner had not submitted any specific reasons for the delay in the petition. The petitioner was directed vide its letter dated 16.11.2015 to submit specific reasons for time over-run qualifying them as controllable or uncontrollable factors with sufficient supporting documents for justifying the same along with the cost escalation (if any) paid to contractor for this time overrun and details as per Form 12 of the 2014 Tariff Regulations. The petitioner vide its affidavit dated 7.12.2015 has submitted that 400 kV D/C Barh-II TPS Gorakhpur line was not ready and hence, commissioning of line reactor was not possible. The major reason for the delay in commissioning of the reactors has been submitted to be delay in the upcoming line, which is covered under Petition No. 184/TT/2015. Reasons for the 400 kV D/C Barh-II TPS Gorakhpur line delay as submitted by the petitioner are listed below:-

a) **Delay due to Court cases:**

The work of tower foundation, erection and stringing was considerably delayed in the section 294/0 to 295/0 due to a court case pending with the



Hon'ble High Court Allahabad. Hon'ble High Court Allahabad allowed the petitioner vide order dated 19.1.2015 to carry out the balance stringing work with a condition that the line would not be energized without the permission of the Court. The matter was disposed on 29.5.2015. Another case with Allahabad High Court was regarding dispute at location no.219/0 and the matter was disposed on 7.10.2014.

**b) Delay due to approval of railway crossings:**

Total 9 nos. of railway crossings were encountered in this transmission line. There has been delay in obtaining approval for railway crossing from the concerned railway divisions.

**c) Delay due to aviation clearance:**

The proposal for aviation clearance was submitted on 3.6.2013 and got cleared on 14.5.2015.

**d) Delay due to forest clearance:**

The proposal for forest clearance was submitted on 29.6.2012 (Bihar and UP). Stage-I clearance for UP portion was received on 30.9.2013 and the same for Bihar portion was received on 6.5.2015.

**e) Delay due to ROW problem**

Two locations in Bihar were under acute ROW problem. The villagers were not cooperative enough for the progress of the project. This matter was also taken up with DM Patna and Samastipur.

20. Based on the above submission, the petitioner has requested the Commission to condone the delay in completion of the subject assets on account of the same being beyond the control of the petitioner. The petitioner also



submitted Form-12 (Details of Time Over-run) along with the letter, which was not submitted earlier along with the petition.

21. We have considered the submissions made by the petitioner regarding the time over-run. We are of the considered view that the time over-run should be considered with reference to the timeline approved in the original Investment approval. Time over-run beyond this period needs to be considered in the light of the principles laid down by the Appellate Tribunal for Electricity in Judgment dated 5.5.2015 in Appeal No. 129 of 2014. The representative of the petitioner in the hearing dated 23.11.2015 submitted that the time over-run in the case of transmission assets was approved in the 34<sup>th</sup> meeting of the Standing Committee of Power System Planning for Northern Region held on 8.8.2014 and in the 32<sup>nd</sup> NRPC Meeting held on September, 2014. It is also observed from the minutes of 34<sup>th</sup> Standing Committee meeting dated 8.8.2014 that the transmission asset was ready for commissioning but the associated Barh-Gorakhpur transmission line was not ready due to delay in obtaining forest clearance, ROW issues, etc., for which the commissioning of the assets got delayed and was finally commissioned as bus reactor.

22. We have considered the submissions made by the petitioner regarding the time over-run on account of delay in execution of some other assets, which is not a subject matter of the instant petition and therefore, the merits of the same have not been looked into. We are therefore, in the instant order, not inclined to condone the delay of two months. However, liberty is granted to the petitioner to place the matter for final view at the time of truing up.





### **Interest During Construction (IDC) and IEDC**

23. The Commission vide its letter dated 16.11.2015 directed the petitioner to submit break-up of IDC and IEDC on cash basis up to SCOD and from SCOD to actual COD along with supporting calculations as per the format prescribed in the letter and to provide the details of IDC and IEDC incurred during the period of delay (from scheduled COD to actual date of commercial operation) along with the liquidated damages recovered or recoverable, if any. The petitioner has submitted the break-up of IDC, IEDC as follows:-

Particulars	(₹ in lakh)	
	Asset-I	Asset-II
COD	4.11.2014	2.11.2014
Total IDC	18.47	19.71
IDC up to SCOD	14.80	15.87
IDC from SCOD to actual COD	3.67	3.84

Particulars	(₹ in lakh)	
	Asset-I	Asset-II
COD	4.11.2014	2.11.2014
Total IEDC	6.12	6.54
IEDC up to SCOD	5.81	6.22
IEDC from SCOD to actual COD	0.31	0.32

24. The petitioner has also submitted Auditor's Certificate depicting IDC and IEDC on cash basis for both the assets vide its affidavit dated 21.11.2015. The petitioner has also submitted that details of LD (if any) shall be submitted after closing of contract for these assets.

25. As discussed earlier, the Commission has not allowed time overrun beyond SCOD and therefore, the IDC and IEDC beyond SCOD till actual COD is not allowed. Accordingly, IDC and IEDC approved for Asset-I and Asset-II is as shown below:-



(₹ in lakh)		
Particulars	Asset-I	Asset-II
IDC up to SCOD	14.80	15.87
IDC from SCOD to actual COD	3.67	3.84
Total IDC	18.47	19.71
<b>IDC Allowed</b>	<b>14.80</b>	<b>15.87</b>

(₹ in lakh)		
Particulars	Asset-I	Asset-II
IEDC up to SCOD	5.81	6.22
IEDC from SCOD to actual COD	0.31	0.32
Total IEDC	6.12	6.54
<b>IEDC Allowed</b>	<b>5.81</b>	<b>6.22</b>

### **Initial spares**

26. The petitioner has not claimed any initial spares in this petition, so no initial spares have been considered for calculation of transmission charges.

### **Capital cost as on COD**

27. In view of the justification provided for cost over-run and time over-run, the Commission has allowed the capital cost of both the assets by considering cost over-run only. However the issue of time over-run may be considered at the time of truing up.

28. The capital cost considered as on COD are as follows:-

(₹ in lakh)		
Particulars	Capital cost as on COD for Asset-I	Capital cost as on for Asset-II
Freehold Land	0.00	0.00
Leasehold Land	0.00	0.00
Building & Other Civil Works	0.00	0.00
Transmission Line	0.00	0.00
Sub-Station Equipments	586.88	621.80
PLCC	0.00	0.00
<b>Total</b>	<b>586.88</b>	<b>621.80</b>



## **Additional Capital Expenditure**

29. Clause (1) of Regulation 14 of the 2014 Tariff Regulations provides as under:-

### **“14. Additional Capitalisation and De-capitalisation:**

(1) The capital expenditure in respect of the new project or an existing project 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. Un-discharged liabilities recognized to be payable at a future date;
- ii. Works deferred for execution;
- iii. Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- iv. Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- v. Change in law or compliance of any existing law:

Provided that the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution shall be submitted along with the application for determination of tariff.

(2) The capital expenditure incurred or projected to be incurred in respect of the new project on the following counts within the original scope of work after the cut-off date may be admitted by the Commission, subject to prudence check:

- i. Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- ii. Change in law or compliance of any existing law;;
- iii. Deferred works relating to ash pond or ash handling system in the original scope of work; and
- iv. Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.:

30. Clause (13) of Regulation 3 of the 2014 Tariff Regulations defines “cut-off” date as under:-

““Cut-off Date” means 31<sup>st</sup> March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of a year, the cut-off date shall be 31<sup>st</sup> March of the year closing after three years of the year of commercial operation.”

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer;”



31. As per the above definition, cut-off date in respect of the transmission asset covered in the instant petition is 31.3.2017.

32. The additional capital expenditure amounting to ₹183.09 lakh has been claimed by the petitioner for both the assets, which is mainly towards balance/retention payments for the period 2014-15 and 2015-16. In this regard, the petitioner was directed vide letter dated 16.11.2015 to clarify whether the amount of ₹183.09 lakh is completely on account of balance and retention payments or also on account of some other works carried out and if so, the petitioner was asked to submit the details of such other works along with justification as per relevant provisions of the 2014 Tariff Regulations. The petitioner was further directed to submit the details of retention payment proposed to be made in future.

33. The petitioner in its reply vide its affidavit dated 7.12.2015 confirmed that all the works have been completed and ₹183.09 lakh is on account of balance and retention payments. The petitioner also submitted that out of the total of ₹183.09 lakh, actual expenditure incurred in 2014-15 is ₹85.18 lakh (paid to M/s. L&T and M/s. CGL). Therefore, as on date balance payment anticipated for 2015-16 is ₹97.91 lakh on account of M/s. L&T and is due to balance and retention payment only. The payment is on hold for LOA awarded to M/s. L&T. The balance payment including retention shall be made during contract closing. The petitioner has submitted that the revised certificate with actual additional capitalisation during 2014-15 and 2015-16 shall be submitted at the time of



truing up of tariff period 2014-19 However, the petitioner has submitted Auditor's Certificate separately for both the assets vide its affidavit dated 21.11.2015.

34. The petitioner has projected additional capitalization for Asset-I as ₹42.59 lakh and ₹45.61 lakh for 2014-15 and 2015-16, respectively. For Asset-II the petitioner has claimed additional capitalization of ₹42.59 lakh and ₹52.29 lakh for 2014-15 and 2015-16 respectively. In view of the above submissions made by the petitioner, the additional capitalization as projected by the petitioner is approved.

### **Debt:Equity Ratio**

35. Clause 1 of Regulation 19 of the 2014 Tariff Regulations is reproduced as under:-

**“19. Debt-Equity Ratio:** (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. 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:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt : equity ratio.”

36. The details of the debt:equity as on COD which is also considered for the purpose of tariff for 2014-19 tariff period are as follows:-

Funding	Asset-I		Asset-II	
	Amount	%	Amount	%
Debt	410.81	70.00	435.26	70.00
Equity	176.07	30.00	186.54	30.00
<b>Total</b>	<b>586.88</b>	<b>100.00</b>	<b>621.80</b>	<b>100.00</b>

(₹ in lakh)



37. Debt-equity ratio for additional capital expenditure is also 70:30.

**Interest on Loan (“IOL”)**

38. Clause (5) & (6) of Regulation 26 of the 2014 Tariff Regulations is reproduced as under:

“(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

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.”

39. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of weighted average rate of interest are attached as Annexure-I and the IOL has been worked out and allowed as follows:-

**Asset-I**

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	410.81	440.62	472.54	472.54	472.54
Cumulative Repayment up to Previous Year	0.00	13.11	47.55	83.19	118.84
Net Loan-Opening	410.81	427.52	425.00	389.35	353.71
Additional Capitalisation	29.81	31.92	0.00	0.00	0.00
Repayment during the year	13.11	34.44	35.64	35.64	35.64
Net Loan-Closing	427.52	425.00	389.35	353.71	318.06
Average Loan	419.16	426.26	407.17	371.53	335.89
Weighted Average Rate of Interest on Loan (%)	9.1920	9.1586	9.1563	9.1453	9.1389
Interest on Loan	38.53	39.04	37.28	33.98	30.70
Pro-rata Interest on Loan	15.73	39.04	37.28	33.98	30.70



## Asset-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	435.26	465.07	501.67	501.67	501.67
Cumulative Repayment up to Previous Year	0.00	14.05	50.51	88.35	126.19
Net Loan-Opening	435.26	451.02	451.16	413.32	375.48
Additional Capitalisation	29.81	36.60	0.00	0.00	0.00
Repayment during the year	14.05	36.46	37.84	37.84	37.84
Net Loan-Closing	451.02	451.16	413.32	375.48	337.64
Average Loan	443.14	451.09	432.24	394.40	356.56
Weighted Average Rate of Interest on Loan (%)	9.4316	9.3923	9.3899	9.3826	9.3913
Interest on Loan	41.80	42.37	40.59	37.01	33.49
Pro-rata Interest on Loan	17.29	42.37	40.59	37.01	33.49

### Return on Equity (“ROE”)

40. Clause (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations specify as under:-

“**24. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system....”

“**25. Tax on Return on Equity:**

..(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where “t” is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

41. The petitioner has computed effective ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulation. The petitioner has further submitted that the grossed up ROE is subject to truing up based on



the actual tax paid along with any additional tax or interest, duly adjusted for any refund of tax including the interest received from IT authorities, pertaining to the tariff period 2014-19 on actual gross income of any financial year. Any under-recovery or over-recovery of grossed up ROE after truing up shall be recovered or refunded to the beneficiaries on year to year basis.

42. The petitioner has further submitted that adjustment due to any additional tax demand including interest duly adjusted for any refund of the tax including interest received from IT authorities shall be recoverable/ adjustable during/after completion of income tax assessment of the financial year.

43. We have considered the submissions made by the petitioner. Regulation 24 read with Regulation 25 of the 2014 Tariff Regulations provides for grossing up of return on equity with the effective tax rate for the purpose of return on equity. It further provides that in case the generating company or transmission licensee is paying Minimum Alternative Tax (MAT), then the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. The petitioner has submitted that MAT rate is applicable to the petitioner's company. Accordingly, the MAT rate applicable during 2013-14 has been considered for the purpose of return on equity, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE as determined by the Commission is shown below:-





## Asset-I

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	176.07	188.85	202.53	202.53	202.53
Additions	12.78	13.68	0.00	0.00	0.00
Closing Equity	188.85	202.53	202.53	202.53	202.53
Average Equity	182.46	195.69	202.53	202.53	202.53
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	35.78	38.37	39.72	39.72	39.72
<b>Pro-rata Return on Equity</b>	<b>14.61</b>	<b>38.37</b>	<b>39.72</b>	<b>39.72</b>	<b>39.72</b>

## Asset-II

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	186.54	199.32	215.01	215.01	215.01
Additions	12.78	15.69	0.00	0.00	0.00
Closing Equity	199.32	215.01	215.01	215.01	215.01
Average Equity	192.93	207.17	215.01	215.01	215.01
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	37.83	40.63	42.16	42.16	42.16
<b>Pro rata Return on Equity</b>	<b>15.65</b>	<b>40.63</b>	<b>42.16</b>	<b>42.16</b>	<b>42.16</b>

## Depreciation

44. Clause (2), (5) & (6) of Regulation 27 of the 2014 Tariff Regulations are reproduced as below:-

### **"27. Depreciation:**

...(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. 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"



“(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-II** 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 the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.”

45. The petitioner has submitted depreciation considering capital expenditure of ₹590.85 lakh for Asset-I and ₹625.95 lakh for Asset-II as on COD.

46. We have considered the submission made by the petitioner after deducting the required IDC and IEDC as discussed above with regard to depreciation. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed is given hereunder:-

#### **Asset-I**

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	586.88	629.47	675.07	675.07	675.07
Additions during the year due to projected additional capitalisation	42.59	45.60	0.00	0.00	0.00
Closing Gross block	629.47	675.07	675.07	675.07	675.07
Average gross block	608.18	652.27	675.07	675.07	675.07
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	547.36	587.04	607.56	607.56	607.56
Elapsed Life	0	1	2	3	4
Balance Life of the Asset	25	24	23	22	21
Remaining Depreciable Value	547.36	573.93	560.01	524.37	488.73
Depreciation	32.11	34.44	35.64	35.64	35.64
<b>Pro-rata Depreciation</b>	<b>13.11</b>	<b>34.44</b>	<b>35.64</b>	<b>35.64</b>	<b>35.64</b>
Cumulative Depreciation	13.11	47.55	83.19	118.84	154.48



## Asset-II

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	621.80	664.39	716.68	716.68	716.68
Additions during the year due to projected additional capitalisation	42.59	52.29	0.00	0.00	0.00
Closing Gross block	664.39	716.68	716.68	716.68	716.68
Average gross block	643.10	690.54	716.68	716.68	716.68
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	578.79	621.48	645.01	645.01	645.01
Elapsed Life	0	1	2	3	4
Balance Life of the Asset	25	24	23	22	21
Remaining Depreciable Value	578.79	607.43	594.50	556.66	518.82
Depreciation	33.96	36.46	37.84	37.84	37.84
<b>Pro-rata Depreciation</b>	<b>14.05</b>	<b>36.46</b>	<b>37.84</b>	<b>37.84</b>	<b>37.84</b>
Cumulative Depreciation	14.05	50.51	88.35	126.19	164.03

### Operation & Maintenance Expenses ("O&M Expenses")

47. The petitioner has computed normative O&M Expenses as per sub-clause (a) of Clause (3) of Regulation 29 of the 2014 Tariff Regulations. Accordingly, O&M Expenses have been worked out as provided below:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Norms for sub-stations (in ₹ lakh per bay)</b>					
400 kV	60.30	62.30	64.37	66.51	68.71
<b>No. 400 kV Bays</b>					
Asset-I	1	1	1	1	1
Asset-II	1	1	1	1	1
<b>O&amp;M Expense (₹ in lakh)</b>					
Asset-I	60.30	62.30	64.37	66.51	68.71
Asset-II	60.30	62.30	64.37	66.51	68.71
<b>Pro-rata O&amp;M Expense (₹ in lakh)</b>					
Asset-I	<b>24.62</b>	<b>62.30</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>
Asset-II	<b>24.95</b>	<b>62.30</b>	<b>64.37</b>	<b>66.51</b>	<b>68.71</b>

48. The petitioner has submitted that O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses



during the period 2008-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company is due during 2014-19 and actual impact of wage hike, which will be effective at a future date, has not been factored in fixation of the normative O&M rate specified for the tariff period 2014-19. The petitioner has prayed to be allowed to approach the Commission for suitable revision in the norms of O&M Expenses for claiming the impact of such increase.

49. The O&M Expenses have been worked out as per the norms of O&M expenses specified in the 2014 Tariff Regulations. As regards impact of wage revision, we would like to clarify that any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

50. The details of O&M Expenses allowed are given hereunder:-

Particulars	(₹in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	24.62	62.30	64.37	66.51	68.71
Asset-II	24.95	62.30	64.37	66.51	68.71

### **Interest on Working Capital (“IWC”)**

51. Clause 1 (c) of Regulation 28 and Clause 5 of Regulation 3 of the 2014 Tariff Regulations specify as follows:

**“28. Interest on Working Capital**

- ...(c) (i) Receivables equivalent to two months of fixed cost;  
(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and  
(iii) Operation and maintenance expenses for one month”



“(5)‘Bank Rate’ means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

52. The petitioner has submitted that it has computed interest on working capital for the tariff period 2014-19 considering the SBI Base Rate as on 1.4.2014 plus 350 basis points. The rate of interest on working capital considered is 13.50%.

53. The interest on working capital is worked out in accordance with Regulation 28 of the 2014 Tariff Regulations. The rate of interest on working capital considered is 13.50% (SBI Base Rate of 10% plus 350 basis points). The interest on working capital as determined by the Commission is shown in the table below:-

#### Asset-I

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	28.75	30.03	30.53	30.34	30.17
Total	42.82	44.56	45.55	45.86	46.20
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	5.78	6.02	6.15	6.19	6.24
<b>Pro-rata Interest</b>	<b>2.36</b>	<b>6.02</b>	<b>6.15</b>	<b>6.19</b>	<b>6.24</b>

#### Asset-II

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	29.97	31.32	31.88	31.65	31.43
Total	44.04	45.86	46.90	47.17	47.47



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest	5.95	6.19	6.33	6.37	6.41
<b>Pro-rata Interest</b>	<b>2.46</b>	<b>6.19</b>	<b>6.33</b>	<b>6.37</b>	<b>6.41</b>

### **ANNUAL TRANSMISSION CHARGES FOR THE TARIFF PERIOD 2014-19**

54. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2014-19 is summarised below:-

#### **Asset-I**

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	586.88	629.47	675.07	675.07	675.07
Additional Capitalization	42.59	45.60	0.00	0.00	0.00
Closing Gross Block	629.47	675.07	675.07	675.07	675.07
Average Gross Block	608.18	652.27	675.07	675.07	675.07
<b>Depreciation</b>					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280
Depreciable Value	547.36	587.04	607.56	607.56	607.56
Elapsed Life	0	1	2	3	4
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	547.36	573.93	560.01	524.37	488.73
Depreciation	32.11	34.44	35.64	35.64	35.64
Pro-rata Depreciation	13.11	34.44	35.64	35.64	35.64
<b>Interest on Loan</b>					
Gross Normative Loan	410.81	440.62	472.54	472.54	472.54
Cumulative Repayment up to Previous Year	0.00	13.11	47.55	83.19	118.84
Net Loan-Opening	410.81	427.52	425.00	389.35	353.71
Additional Capitalization	29.81	31.92	0.00	0.00	0.00
Repayment during the year	13.11	34.44	35.64	35.64	35.64
Net Loan-Closing	427.52	425.00	389.35	353.71	318.06
Average Loan	419.16	426.26	407.17	371.53	335.89
Weighted Average Rate of Interest on Loan (%)	9.1920	9.1586	9.1563	9.1453	9.1389
Interest on Loan	38.53	39.04	37.28	33.98	30.70
Pro-rata Interest on Loan	15.73	39.04	37.28	33.98	30.70



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Return on Equity</b>					
Opening Equity	176.07	188.85	202.53	202.53	202.53
Additions	12.78	13.68	0.00	0.00	0.00
Closing Equity	188.85	202.53	202.53	202.53	202.53
Average Equity	182.46	195.69	202.53	202.53	202.53
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	35.78	38.37	39.72	39.72	39.72
Pro-rata Return on Equity	14.61	38.37	39.72	39.72	39.72
<b>Interest on Working Capital</b>					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	28.75	30.03	30.53	30.34	30.17
Total	42.82	44.56	45.55	45.86	46.20
Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	5.78	6.02	6.15	6.19	6.24
Pro-rata interest on Working Capital	2.36	6.02	6.15	6.19	6.24
<b>Annual Transmission Charges</b>					
Depreciation	13.11	34.44	35.64	35.64	35.64
Interest on Loan	15.73	39.04	37.28	33.98	30.70
Return on Equity	14.61	38.37	39.72	39.72	39.72
Interest on Working Capital	2.36	6.02	6.15	6.19	6.24
O & M Expenses	24.62	62.30	64.37	66.51	68.71
<b>Total</b>	<b>70.42</b>	<b>180.17</b>	<b>183.16</b>	<b>182.04</b>	<b>181.00</b>

## Asset-II

(₹in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
<b>Gross Block</b>					
Opening Gross Block	621.80	664.39	716.68	716.68	716.68
Additional Capitalization	42.59	52.29	0.00	0.00	0.00
Closing Gross Block	664.39	716.68	716.68	716.68	716.68
Average Gross Block	643.10	690.54	716.68	716.68	716.68
<b>Depreciation</b>					
Rate of Depreciation (%)	5.280	5.280	5.280	5.280	5.280



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable Value	578.79	621.48	645.01	645.01	645.01
Elapsed Life	0	1	2	3	4
Weighted Balance Useful life of the assets	25	24	23	22	21
Remaining Depreciable Value	578.79	607.43	594.50	556.66	518.82
Depreciation	33.96	36.46	37.84	37.84	37.84
Pro-rata Depreciation	14.05	36.46	37.84	37.84	37.84
<b>Interest on Loan</b>					
Gross Normative Loan	435.26	465.07	501.67	501.67	501.67
Cumulative Repayment up to Previous Year	0.00	14.05	50.51	88.35	126.19
Net Loan-Opening	435.26	451.02	451.16	413.32	375.48
Additional Capitalization	29.81	36.60	0.00	0.00	0.00
Repayment during the year	14.05	36.46	37.84	37.84	37.84
Net Loan-Closing	451.02	451.16	413.32	375.48	337.64
Average Loan	443.14	451.09	432.24	394.40	356.56
Weighted Average Rate of Interest on Loan (%)	9.4316	9.3923	9.3899	9.3826	9.3913
Interest on Loan	41.80	42.37	40.59	37.01	33.49
Pro-rata Interest on Loan	17.29	42.37	40.59	37.01	33.49
<b>Return on Equity</b>					
Opening Equity	186.54	199.32	215.01	215.01	215.01
Additions	12.78	15.69	0.00	0.00	0.00
Closing Equity	199.32	215.01	215.01	215.01	215.01
Average Equity	192.93	207.17	215.01	215.01	215.01
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for the year 2013-14 (%)	20.961	20.961	20.961	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610	19.610	19.610	19.610
Return on Equity (Pre Tax)	37.83	40.63	42.16	42.16	42.16
Pro-rata Return on Equity	15.65	40.63	42.16	42.16	42.16
<b>Interest on Working Capital</b>					
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
O & M expenses	5.03	5.19	5.36	5.54	5.73
Receivables	29.97	31.32	31.88	31.65	31.43
Total	44.04	45.86	46.90	47.17	47.47
Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	5.95	6.19	6.33	6.37	6.41
Pro-rata interest on Working Capital	2.46	6.19	6.33	6.37	6.41
<b>Annual Transmission Charges</b>					





Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	14.05	36.46	37.84	37.84	37.84
Interest on Loan	17.29	42.37	40.59	37.01	33.49
Return on Equity	15.65	40.63	42.16	42.16	42.16
Interest on Working Capital	2.46	6.19	6.33	6.37	6.41
O & M Expenses	24.95	62.30	64.37	66.51	68.71
<b>Total</b>	<b>74.40</b>	<b>187.94</b>	<b>191.29</b>	<b>189.89</b>	<b>188.61</b>

### **Filing Fee and Publication Expenses**

55. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 52 of the 2014 Tariff Regulations. 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 Clause (1) of Regulation 52 of the 2014 Tariff Regulations.

### **Licence Fee and RLDC Fees and Charges**

56. The petitioner has requested to allow the petitioner to bill and recover License fee and RLDC fees and charges, separately from the respondents. The petitioner shall be entitled for reimbursement of licence fee and RLDC fees and charges in accordance with Clause (2) (a) and (2) (b) respectively of Regulation 52 of the 2014 Tariff Regulations.

### **Service Tax**

57. The petitioner has sought to recover service tax on transmission charges separately from the respondents, if at any time service tax on transmission is



withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

### **Deferred Tax Liability**

58. The petitioner has sought recovery of deferred tax liability before 1.4.2009 from the beneficiaries or long term consumers/ DICs as and when materialized under Regulation 39 of the 2009 Tariff Regulations and Regulation 49 of the 2014 Tariff Regulations. It was observed that the asset was commissioned in 2014-15 and therefore, deferred tax liability pertaining to period prior to 2009 may not arise in the present case. Accordingly, directed the petitioner to clarify the same. The petitioner vide affidavit dated 7.12.2015 has submitted that since the assets have been commissioned after 31.3.2009, no deferred tax liability will be recovered.

### **Sharing of Transmission Charges**

59. 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, as provided in Regulation 43 of the 2014 Regulations.

60. This order disposes of Petition No. 78/TT/2015.

Sd/-  
**(Dr. M. K. Iyer)**  
**Member**

Sd/-  
**(A.S. Bakshi)**  
**Member**



**Asset-I****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO****(₹ in lakh)**

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
SBI (21.03.2012)-Loan 4	10.25	20.00	0.00	20.00
Bond- XLIII-Loan 1	7.93	20.00	0.00	20.00
Bond- XLIV-Loan-2	8.70	70.00	0.00	70.00
Bond- XLV-Loan-3	9.65	186.00	0.00	186.00
Bond- XLVII-Loan-5	8.93	117.60	0.00	117.60
Bond- XLVIII	8.20	0.00	29.81	29.81
<b>Total</b>		<b>413.60</b>	<b>29.81</b>	<b>443.41</b>

**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2014-19 TARIFF PERIOD****(₹ in lakh)**

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	413.60	443.41	443.41	443.41	443.41
Cumulative Repayment up to COD/ previous year	0.00	0.00	0.00	1.82	20.81
Net Loan-Opening	413.60	443.41	443.41	441.59	422.60
Additions during the year	29.81	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	1.82	18.99	42.32
Net Loan-Closing	443.41	443.41	441.59	422.60	380.28
Average Loan	428.51	443.41	442.50	432.10	401.44
Interest	39.39	40.61	40.52	39.52	36.69
<b>Rate of Interest (%)</b>	<b>9.1920</b>	<b>9.1586</b>	<b>9.1563</b>	<b>9.1453</b>	<b>9.1389</b>



**Asset-II****DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO**

(₹ in lakh)

Particulars	Interest Rate (%)	Loan deployed as on 1.4.2014	Additions during the tariff period	Total
SBI (21.03.2012)-DOCO	10.25	30.00	0.00	30.00
Bond- XLIII-Loan 1	7.93	20.00	0.00	20.00
Bond- XLIV-Loan-2	8.70	70.00	0.00	70.00
Bond- XLV-Loan-3	9.65	200.00	0.00	200.00
SBI (2014-15)-DOCO	10.25	50.00	0.00	50.00
Bond –XLVI-DOCO	9.30	68.17	0.00	68.17
Bond- XLVIII-Add Cap for 2014-15	8.20	0.00	29.81	29.81
<b>Total</b>		<b>438.17</b>	<b>29.81</b>	<b>467.98</b>

**WEIGHTED AVERAGE RATE OF INTEREST ON LOAN DURING 2014-19 TARIFF PERIOD**

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	438.17	467.98	467.98	467.98	467.98
Cumulative Repayment up to COD/ previous year	0.00	0.00	0.00	2.73	23.79
Net Loan-Opening	438.17	467.98	467.98	465.25	444.19
Additions during the year	29.81	0.00	0.00	0.00	0.00
Repayment during the year	0.00	0.00	2.73	21.06	44.39
Net Loan-Closing	467.98	467.98	465.25	444.19	399.80
Average Loan	453.08	467.98	466.62	454.72	422.00
Interest	42.73	43.95	43.81	42.66	39.63
<b>Rate of Interest (%)</b>	<b>9.4316</b>	<b>9.3923</b>	<b>9.3899</b>	<b>9.3826</b>	<b>9.3913</b>

