CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 236/TT/2016

Coram:

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

Date of Order : 06.10.2017

In the matter of:

Approval of Transmission Tariff from Anticipated/ Actual DOCO to 31.03.2019 for **Asset-1:** 1 X 500 MVA, 400/220 kV Transformer at Panchkula Sub-station, **Asset 2**: 1 X 500 MVA , 400/220 kV Transformer at Jalandhar Sub-station, **Asset-3:** 1 X 315 MVA, 400/220 kV Transformer at Samba Sub-station, **Asset-4:** 1 X 500 MVA, 400/220 kV Transformer at Gurgaon Sub-station Under **"Augmentation of Transformers in Northern Region - Part B" 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 Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001
Haryana **….Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited
   Vidyut Bhawan, Vidyut Marg,
   Jaipur - 302005

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-171004

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
Government 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 Ltd.
Shakti Sadan, Kotla Road,
New Delhi-110002

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

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

13. North Delhi Power Ltd.
Power Trading and 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 Ltd.
Urja Bhawan, Kanwali Road,
Dehradun.

16. North Central Railway,
Allahabad.

17. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002 **….Respondents**

For Petitioner	:	Shri S.K. Venkatesan, PGCIL Shri Rakesh Prasad, PGCIL Shri B. Dash, PGCIL Shri S.S. Raju, PGCIL Shri V.P. Rastogi, PGCIL
For Respondents	:	Shri R. B. Sharma, Advocate, BRPL

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. ("PGCIL") seeking approval of transmission tariff of Assets covered under "Augmentation of Transformers in Northern Region - Part B" in Northern Region for 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

2. The Investment Approval (IA) and expenditure sanction for the transmission system was accorded by the Board of Directors of the petitioner vide letter dated 16th May 2014 at an estimated cost of ₹15557 lakh including Interest During Construction (IDC) of ₹809 lakh (based on Dec 2013 price level). The instant transmission system was scheduled to be commissioned within 24 months from the date of IA. Therefore, the scheduled date of commissioning of the instant transmission system was 15.5.2016.

3. The approval of Revised Cost Estimate (RCE) for the transmission system was accorded by the Board of Directors of the petitioner vide letter dated 31.3.2017 at revised cost estimate of ₹20642 lakh including IDC of ₹743 lakh

(based on Dec, 2016 price level).

4. The broad scope of the project comprised of augmentation of transformation capacity at following 400/220 kV Sub-stations:-

Substation Works:

- Samba (1X315 MVA, 400/220 kV Transformer)
- Gurgaon (1X500 MVA, 400/220 kV Transformer)
- Hamirpur (3X105 MVA, 400/220 kV Transformer along with 02 numbers of 220 kV line Bays)
- Jalandhar (1X500 MVA, 400/220 kV Transformer along with 02 numbers of 220 kV line Bays)
- Panchkula (1X500 MVA, 400/220 kV Transformer)

5. The petitioner in its original petition dated 1.11.2016 had submitted the tariff forms of Asset-1 and Asset-2 considering actual DOCO as 1.4.2016 and 2.7.2016 respectively. For Asset-3 and Asset-4 the petitioner had filed the forms on the basis of anticipated COD of 1.12.2016 and 1.1.2017 respectively. The petitioner has further submitted a letter dated 8.6.2016 revising the actual DOCO of Asset-1 as 2.4.2016 instead of 1.4.2016. Before 15.12.2016, the date on which matter was initially listed for hearing, petitioner vide its affidavit dated 13.12.2016 had conveyed DOCO status of the assets covered in the instant petition. The actual DOCO of Asset-3 was shown as 29.10.2016 against the anticipated date of 1.12.2016. The actual actual/anticipated DOCO of other assets viz. Asset-1, 2 and 4 was the same as depicted in the petition. The petitioner also enclosed notification of DOCO and certificate of completion of trial operation pertaining to Asset-3. On 13.12.2016 BSES Rajdhani Power Limited (BRPL), Respondent No.

12, filed its reply to the petition. The Commission by its order dated 6.2.2017 granted tariff in the instant petition in terms of proviso (i) of Regulation 7 (7) with direction to the petitioner to submit additional information on affidavit. In response, the petitioner vide affidavit dated 7.3.2017 submitted the desired details along with revised tariff forms and Auditors Certificate in case of Asset-3 on the basis of actual DOCO and revised tariff forms and Auditors Certificate for Asset-4 with anticipated DOCO of 30.4.2017. Further, the petitioner vide affidavit dated 12.4.2017, as directed, filed additional information including Auditors certificate and revised tariff forms for Asset-1 considering actual DOCO as 2.4.2016. The petitioner, vide affidavit dated 1.8.2017 has further revised the anticipated DOCO of Asset-4 as 31.7.2017.

6. The details of Assets covered in the instant petition and corresponding DOCO as per affidavits dated 13.12.2016 , 7.3.2017 and 1.8.2017 are as follows:-

Sl No.	Assets	Scheduled DOCO as per IA	DOCO
1	***Asset-1***: 1 X 500 MVA, 400/220 kV Transformer at Panchkula Sub-station	15.5.2016	2.4.2016 (Actual)
2	***Asset-2:*** 1 X 500 MVA , 400/220 kV Transformer at Jalandhar Sub-station		2.7.2016 (Actual)
3	***Asset-3***: 1 X 315 MVA, 400/220 kV Transformer at Samba Sub-station		29.10.2016 (Actual)
4	***Asset-4***: 1 X 500 MVA, 400/220 kV Transformer at Gurgaon Sub-station		31.7.2017 (Anticipated)

7. The details of the transmission charges claimed by the petitioner are as under:-

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Depreciation	95.15	111.71	123.75
Interest on Loan	115.94	127.01	131.02
Return on Equity	106.02	124.47	137.89
Interest on working capital	12.62	13.83	14.67
O & M Expenses	109.13	113.06	116.81
Total	**438.86**	**490.08**	**524.14**

Asset-2			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Depreciation	56.44	99.39	108.60
Interest on Loan	62.28	103.76	105.31
Return on Equity	62.89	110.74	121.00
Interest on working capital	8.24	12.76	13.41
O & M Expenses	81.78	113.06	116.81
Total	**271.63**	**439.71**	**465.13**

Asset-3			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Depreciation	31.63	105.54	114.52
Interest on Loan	33.28	106.02	106.74
Return on Equity	35.24	117.59	127.60
Interest on working capital	4.61	13.09	13.72
O & M Expenses	46.48	113.06	116.81
Total	**151.24**	**455.30**	**479.39**

Asset-4 (Based on anticipated DOCO:30.4.2017)		
Particulars	**2017-18 (pro-rata)**	**2018-19**
Depreciation	190.75	229.91
Interest on Loan	178.65	200.68
Return on Equity	212.54	256.16
Interest on working capital	18.12	21.08
O & M Expenses	103.95	116.81
Total	**704.01**	**824.64**

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

(₹ in lakh)

Asset-1			
Particulars	**2016-17**	**2017-18**	**2018-19**
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.42	16.96	17.52
Receivables	73.35	81.68	87.36
Total	98.88	108.06	114.61
Rate of Interest	12.80%	12.80%	12.80%
Interest (pro-rata)	**12.62**	**13.83**	**14.67**

Asset-2			
Particulars	**2016-17**	**2017-18**	**2018-19**
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	60.58	73.28	77.52
Total	86.11	99.66	104.77
Rate of Interest	12.80%	12.80%	12.80%
Interest (pro-rata)	**8.24**	**12.76**	**13.41**

Asset-3			
Particulars	**2016-17**	**2017-18**	**2018-19**
O & M Expenses	9.12	9.42	9.73
Maintenance Spares	16.42	16.96	17.52
Receivables	59.35	75.88	79.90
Total	84.89	102.26	107.16
Rate of Interest	12.80%	12.80%	12.80%
Interest (pro-rata)	**4.61**	**13.09**	**13.72**

	Asset-4 (Based on anticipated DOCO:30.4.2017)		
Particulars	**2016-17**	**2017-18**	**2018-19**
O & M Expenses	-	9.42	9.73
Maintenance Spares	-	16.96	17.52
Receivables	-	127.62	137.44
Total	-	154.00	164.69
Rate of Interest	-	12.80%	12.80%
Interest (pro-rata)	**-**	**18.12**	**21.08**

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. BSES Rajdhani Power Limited (BRPL), Respondent No. 12 in its

reply, filed vide affidavit dated 13.12.2016, has raised hosts of issues including that of exact date of DOCO, time over-run, cost over-run and casual approach of petitioner in citing reasons for the same, cost variation in case of Asset-4 as compared to Asset-1 and Asset-2 though transformation capacity of the same being equal, effective tax rate, non-submission of Transmission Service Agreement (TSA), release of spare ICT if any, filing of certificates, reimbursement of expenditure towards filing fee, license fee etc. The petitioner in response has filed rejoinder dated 21.7.2017 to the reply of BRPL. The objections as raised by BRPL and the clarifications given by the petitioner are addressed in the relevant paragraphs of this order.

10. Asset-4 is not yet commissioned and the anticipated DOCO 31.7.2017 as communicated by the petitioner is also over. The petitioner has not conveyed the updated status of commissioning of Asset-4. As per Regulation 7(2) of Tariff Regulations 2014, the transmission licensee may make an application for determination of tariff for new transmission system including communication system or element thereof as the case may be in accordance with the Procedure Regulations, in respect of the transmission system or elements thereof anticipated to be commissioned within 180 days from the date of filing of the petition. However, in the instant case in respect of Asset-4, the anticipated date of COD has exceeded beyond the prescribed 180 days from the date of original filing. As such, in the instant order the Asset-4 is not considered for the purpose of tariff. The petitioner may approach the Commission separately for the tariff on commissioning of the said Asset-4, as deemed appropriate. We therefore proceed with determination of tariff for Asset-1, Asset-2 and Asset-3 only.

Date of commercial operation

11. The petitioner has claimed date of commercial operation of the Asset-1, Asset-2 and Asset-3 as 2.4.2016, 2.7.2016, 29.10.2016 respectively. The 2014 Tariff Regulations and CERC (IEGC) (Fourth Amendment) Regulations, 2017 requires the trial operation certificate and CMD certificate for declaration of COD. The petitioner has submitted certificate for declaration of COD, trial operation certificate of RLDC and CEA Certificate as required under Central Electricity Authority (Measures Relating to safety and Electric supply) Regulations, 2010. The petitioner has also submitted the CMD certificate as required under Grid Code for Asset-2 and Asset-3. COD of Asset-1 being prior to the CERC (IEGC) (Fourth Amendment) Regulations, 2017, therefore CMD certificate for Asset-1 is not contemplated. As such, COD of Asset-1, Asset-2 and Asset-3 as claimed by the petitioner is approved.

Capital cost

12. Clause (1) and (2) of Regulation 9 of the 2014 Tariff Regulations provides as follows:-

> "(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 capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations; 39

(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."

13. The details of revised approved apportioned cost, capital cost as on COD and estimated/projected additional capital expenditure to be incurred for the Asset-1, Asset-2 and Asset-3 considering Auditor's certificate dated 6.10.2016, 3.3.2017 and 21.03.2017 and other submissions of petitioner are summarized below:-

(₹ in lakh)

Asset	Revised approved apportioned cost	Expenditure as on actual COD / Estimated Expenditure	Estimated expenditure			Total estimated completion cost
			2016-17	2017-18	2018-19	
Asset-1	2593.11	1669.89	274.99[#]	342.19	114.06	2400.83
Asset-2	2541.69	1118.72	640.05	255.42	85.14	2099.33
Asset-3	2469.14	955.43	944.07	215.57	107.79	2222.87

[#] ₹ 274.69 lakh as per auditor's certificate plus ₹0.30 lakh balance IDC discharged in 2016-17

Cost Over-run

14. The total estimated completion cost of the instant three assets through this order is within the RCE approved apportioned cost. Further, BRPL has raised query regarding cost variation from FR for Asset-4 and reason for variation of basic cost of transformer at Gurgaon (Asset-4) with respect to transformer at Panchkula and Jalandhar (Asset-1 and Asset-2). Though the tariff of Asset-4 is presently not being determined, but since the query is also with reference to

Asset-1 and Asset-2, the reasons as attributed by the petitioner for the same are stated below:-

i) Asset-1 and Asset-2 have conventional type air terminations. Whereas Asset-4 is a GIS with GIS duct on 400 kV side (which require Oil to SF6 bushing) and 220 kV side with 220 kV cables (which require Oil to Oil termination box with cable termination arrangement). Since the specifications of both type of ICT are different, the cost is not comparable.

ii) The contract for Asset-1 and Asset-2 was awarded to Toshiba Transmission & Distribution System (India) Pvt. Ltd. and contract for Asset-4 was awarded to New Northeast Electric Group High Voltage Switchgear Company Limited (China). The price variation in basic cost is due to price quoted by the bidder in open tender process. With regard to the variation of FR cost vis-à-vis the actual cost, it is submitted that as per the petitioner's policy, the procurement is carried out under open competitive route by providing equal opportunity to all the eligible firms. The bid prices are invited for the complete scope of work on overall basis and the contracts are awarded to the qualified bidder, whose bid is determined as the lowest evaluated, techno-commercially responsive and, who is considered to have the capacity and capability to perform the contract based on the assessment, if carried out. Thus, the variation of awarded/actual cost may be because of various market forces and the pricing strategies followed by bidder(s).

15. We have considered the submissions of the petitioner and BRPL regarding cost over-run along with the revised approved apportioned cost of the instant assets. It is observed that the total estimated completion cost of the instant three assets is within the revised approved apportioned cost. Further, it is observed

that the total estimated completion cost of these three assets is also within the apportioned FR cost. Hence, there is no cost over-run in case of the instant assets.

Time Over-run

16. As per the Investment Approval dated 16.5.2014, the instant assets were schedule to be commissioned within 24 months i.e. 15.5.2016. However, the instant assets were put into commercial operation as per the details given below:-

Assets	Scheduled DOCO as per IA	DOCO	Delay in number of days
Asset-1	15.5.2016	2.4.2016 (Actual)	No delay
Asset-2		2.7.2016 (Actual)	48 days
Asset-3		29.10.2016 (Actual)	167 days

17. There has been a delay of 48 days and 167 days in case of Asset-2 and Asset-3 respectively. There is no delay in case of Asset-1. BRPL has submitted that there was lack of supervisory control by the petitioner and it lead to the time over-run. BRPL has further submitted that the petitioner has not submitted the DPR, CPM analysis, PERT chart and Bar chart in case of the instant assets and in the absence of these details it is difficult to assess the time over-run. Thus, the petitioner's prayer for condoning the time over-run may not be allowed as the time over-run is solely attributable to the petitioner.

18. The petitioner has submitted the PERT chart and CPM analysis with respect to the instant assets vide affidavit dated 21.7.2017.

19. We have considered the submission of the petitioner and BRPL regarding time over-run. There is a time over-run of 48 days in commissioning of Asset-2. The petitioner has submitted that 1x500 MVA ICT along with 2 Nos. of the

associated 220 kV line bays at Jalandhar Sub-station is the complete asset as per the scope of the scheme. The petitioner has submitted that the ICT at Jalandhar was in its scope and the 220 kV line was under the scope of PSTCL. The petitioner has submitted that it attempted to commission the elements under its scope but it was not able to do so because of the non-readiness of the associated 220 kV line under the scope of PSTCL. The petitioner has submitted that it has commissioned the instant ICT on 2.7.2016 without the 2 Nos. line bays at Jalandhar with a time over-run of 48 days and the delay is beyond its control. We are of the view that this time over-run of 48 days is due to the lack of co-ordination and planning of the petitioner with PSTCL. The time over-run is attributable to the petitioner and hence it is not condoned.

20. As regards Asset-3, there is a time over-run of 167 days. The petitioner has submitted that leakage in the transformer at Samba Sub-station was identified during the OLTC test at the time of installation and it lead to the time over-run of 167 days. The petitioner has submitted that inspite of bottlenecks it made best efforts to commission the entire project progressively within the maximum anticipated time over-run of 7.5 months and requested to condone the time over-run of 167 days. BRPL has submitted that the petitioner is well conversant with the problems of this nature and it should have taken sufficient care to avoid such issues at the stage of installation. BRPL has submitted that the entire time over-run is attributable to lack of supervision on the part of the petitioner and hence it should not be condoned. We have considered the submission of the petitioner and BRPL. The issue of leakage was observed at the time of installation at later stage. We are of the view that this problem could have been identified earlier if proper care was taken by the petitioner. It shows that there was lack of

supervision and workmanship on the part of the petitioner. We are of the view that this time over-run is a controllable factor as defined in Regulation 12 of the 2014 Tariff Regulations and hence the time over-run of 167 days is not condoned. Accordingly, the IDC and IEDC for the period of time over-run of 48 days and 167 days in case of Asset-2 and 3 respectively shall not be capitalized.

21. BRPL in its reply dated 13.12.2016 has stated that nothing has been mentioned in the petition that the augmentation of transformation capacity of the above assets would result in release of any ICTs at their respective locations. In the event, if the augmentation results in release of any spare capacity, the same is liable to be de-capitalized as per their book value from the capital cost of these assets. The petitioner in its reply has clarified that as per scope of investment approval New ICTs at Jalandhar, Panchkula, Samba and Gurgaon Sub-stations are provided for augmentation of transformation capacity without replacing existing ICTs. Since there is no replacement de-capitalization gets ruled out.

Treatment of Interest During Construction (IDC)

22. The petitioner vide affidavit dated 1.8.2017 has submitted the information related to IDC. The IDC discharged up to COD and the "IDC to be discharged" after COD i.e. in 2016-17 and 2017-18 have also been mentioned for all the assets.

23. The IDC on cash basis up to COD has been worked out based on the available information i.e. loan details in Form-9C. The IDC, for Asset-2 and Asset-3, has been worked out after deducting the "Interest" during the delayed period, which is not being condoned for both the assets, as mentioned in previous paragraphs.

24. Following is the details submitted by the petitioner and allowable/ worked out IDC as on COD, on cash basis:

(₹ in Lakh)

Asset	Claimed as on COD as per the respective Auditor's Certificate	Discharged up to COD (as claimed)	Allowed/ Worked out on Cash Basis as on COD	Balance Accrued IDC as on COD to be discharged during FY 2016-17 (as claimed)	Balance Accrued IDC being discharged during FY 2016-17 (allowable)	Balance Accrued IDC as on COD to be discharged during FY 2017-18 (as claimed)	Balance Accrued IDC being discharged during FY 2017-18 (allowable)
Asset-1	28.06	27.76	27.76	0.30	0.30	0.00	0.00
Asset-2	19.63	11.32	8.44	0.06	0.00	8.24	0.00
Asset-3	19.30	2.25	1.11	0.23	0.00	16.82	0.00

25. The IDC on cash basis has been worked out up to COD and has been capitalized as on COD. Whereas, "the Balance accrued IDC" as on COD, is not being allowed to be capitalized because the balance accrued IDC as on COD is yet 'to be discharged' by the petitioner. Therefore, this balance accrued IDC as on COD would be capitalized once the actual payment is made by the petitioner on cash basis for the instant assets.

26. These allowed/ dis-allowed IDC is subject to verification at the time of truing up.

27. Difference has been observed in the Gross Loan claimed as on COD (as per Form-9C) and the Gross Loan considered for the working of IDC by the petitioner. Presently, Gross loan (as per Form-9C) is considered for the calculation of IDC. The petitioner is directed to reconcile the Gross Loan for the calculation of weighted average Rate of Interest (as in Form-9C) and for the calculation of IDC, which would be reviewed at the time of truing-up.

Treatment of IEDC

28. The petitioner has claimed ₹91.52 lakh, ₹63.62 lakh and ₹47.82 lakh for Asset-1, Asset-2 and Asset-3 respectively. The petitioner has also submitted that the entire IEDC claimed has been discharged as on COD for Asset-1, Asset-2 and Asset-3. The IEDC limit of 10.75% of the Hard Cost mentioned in the "Abstract Cost Estimate" is kept in sight for allowing the IEDC. The IEDC claimed by the petitioner as on COD is lower than 10.75% of the hard cost. Accordingly, the IEDC claimed is allowed to be capitalized after IEDC deduction for delay as shown below in the present case.

(₹ in lakh)

Asset	IEDC	
	Claimed	**Allowed**
Asset-1	91.52	91.52
Asset-2	63.62	41.74
Asset-3	47.82	27.57

29. We have considered the IEDC cost for Asset-1 as mentioned in its Auditor's Certificate for allowing the tariff. The value of IEDC as shown in Form-12A is different. The petitioner is directed to reconcile the same at the time of true up. The IEDC allowed would be reviewed at the time of truing-up.

Initial Spares

30. Regulation 13(d) of the 2014 Tariff Regulations provides that initial spares shall be capitalized as a percentage of plant and machinery cost up to cut-off date, subject to following ceiling norms:-

> "(d) Transmission System Transmission line: 1.00%
> Transmission sub-station (Green Field): 4.00%
> Transmission sub-station (Brown Field): 6.00%"

31. The petitioner has claimed initial spares amounting to ₹94.76 lakh, ₹86.50 lakh and ₹106.08 lakh for Asset-1, Asset-2 and Asset-3 respectively. The initial spares claimed by the petitioner for Sub-station (Brown Field - Asset-1 to 3) being within the ceiling limit as specified under Regulation 13 of 2014 Tariff Regulations, are allowed.

32. The following capital cost as on COD after taking into consideration the allowable IDC , IEDC and initial spare is considered for the computation of tariff for the assets covered in the instant petition:-

(₹ in lakh)

Asset	Capital cost as per CA Certificate as on COD	Less: Total IDC & IEDC claimed	Add: IDC allowed on cash basis as on COD	Add: IEDC allowed as on COD	Less: Excess Initial spares as on COD	Capital Cost as on COD considered for Tariff
Asset-1	1669.89	119.58	27.76	91.52	0.00	1669.59
Asset-2	1118.72	83.25	8.44	41.74	0.00	1085.65
Asset-3	955.43	67.12	1.11	27.57	0.00	917.00

Additional capital expenditure

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

"(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) Undischarged liabilities recognised 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; 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."

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

"cut-off date" means 31st 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 the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation".

35. The "cut-off" date in the case of instant transmission asset is 31.3.2019.

36. The petitioner has claimed the following additional capital expenditure vide affidavits dated 8.3.2017, 12.4.2017 and in the petition. The additional capital expenditure allowed after IDC and IEDC adjustment are as follows:-

(₹ in lakh)

Asset		Estimated add-cap 2016-17	Estimated add-cap 2017-18	Estimated add-cap 2018-19	Total estimated Add Cap
Asset-1	Claimed	274.99	342.19	114.06	731.24
	Allowed	274.99	342.19	114.06	731.24
Asset-2	Claimed	640.11	263.66	85.14	988.91
	Allowed	640.05	255.42	85.14	980.61
Asset-3	Claimed	944.30	232.39	107.79	1284.48
	Allowed	944.07	215.57	107.79	1267.43

37. The petitioner has submitted that the additional capital expenditure incurred/projected to be incurred is on account of Balance and Retention Payments. We have considered the submission of the petitioner. The additional capital expenditure incurred/projected to be incurred is on account of Balance/Retention Payments and are within "cut-off date" and is covered under Regulation 14(1) (i) of the 2014 Tariff Regulations and accordingly to the extent not deducted for time over-run it is allowed. The total estimated completion cost of the

instant assets as on 31.3.2019 is given below:-

(₹ in lakh)

Asset	Revised approved apportioned cost	Capital cost as on COD	Estimated expenditure			Total estimated completion cost
			2016-17	2017-18	2018-19	
Asset-1	2593.11	1669.59	274.99	342.19	114.06	2400.8
Asset-2	2541.69	1085.65	640.05	255.42	85.14	2066.2
Asset-3	2469.14	917.00	944.07	215.57	107.79	2184.4

Debt-Equity Ratio

38. Clause 1 and 5 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

> "(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.
>
> **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, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system."
>
> "(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 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."

39. The petitioner has claimed debt:equity ratio of 70:30 as on the date of commercial operation. Debt:equity ratio of 70:30 is considered as provided in

Regulation 19 of the 2014 Tariff Regulations. The details of debt:equity ratio in respect of the instant assets as on the date of commercial operation and as on 31.3.2019 are as under:

(₹ in lakh)

	Particulars	Capital cost as on tariff COD		Capital cost as on 31.3.2019	
		Amount	**%**	**Amount**	**%**
Asset-1	Debt	1168.71	70	1680.58	70.00
	Equity	500.88	30	720.25	30.00
	Total	**1669.59**	**100**	**2400.83**	**100.00**
Asset-2	Debt	759.95	70	1446.38	70.00
	Equity	325.69	30	619.88	30.00
	Total	**1085.65**	**100**	**2066.26**	**100.00**
Asset-3	Debt	641.90	70	1529.10	70.00
	Equity	275.10	30	655.33	30.00
	Total	**917.00**	**100**	**2184.43**	**100.00**

<u>Return on Equity</u>

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 and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:
>
> Provided that:
>
> (i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in **Appendix-I:**
>
> (ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
>
> (iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
>
> (iv) the rate of return of a new project shall be reduced by 1% for such period as

may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.

"25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e., income of non generation or non transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate".

(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 submitted that it is liable to pay income tax at MAT rate, the RoE has been calculated @ 19.610% after grossing up the RoE with MAT rate of 20.961%, as provided under Regulation 25(2) (i) of the 2014 Tariff Regulations. As per Regulation 25(3) of the 2014 Tariff Regulations, the grossed up rate of RoE at the end of the financial year shall be trued up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to the 2014-19 period 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. 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 after completion of income tax assessment of the financial year. BRPL has submitted that effective tax rate should be allowed as per Regulation 25 of the 2014 Tariff Regulations and the petitioner should submit the details of working of effective tax rate.

42. We have considered the submissions made by the petitioner and BRPL. 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), the MAT rate including surcharge and cess will be considered for the grossing up of return on equity. 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 allowed is as follows:-

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Equity	500.88	583.37	686.03
Addition due to Additional Capitalisation	82.50	102.66	34.22
Closing Equity	583.37	686.03	720.25
Average Equity	542.13	634.70	703.14
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	106.02	124.47	137.89

Asset-2			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Equity	325.69	517.71	594.34
Addition due to Additional Capitalisation	192.02	76.63	25.54
Closing Equity	517.71	594.34	619.88
Average Equity	421.70	556.02	607.11
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	61.85	109.04	119.05

Asset-3			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Equity	275.10	558.32	622.99
Addition due to Additional Capitalisation	283.22	64.67	32.34
Closing Equity	558.32	622.99	655.33
Average Equity	416.71	590.66	639.16
Return on Equity (Base Rate)	15.50%	15.50%	15.50%
Tax rate for the year 2013-14 (MAT)	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre-tax)	19.610%	19.610%	19.610%
Return on Equity (Pre-tax)	34.48	115.83	125.34

Interest on Loan (IoL)

43. Regulation 26 of the 2014 Tariff Regulations are provides as under:-

"(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of Assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of decapitalisation of such Asset.

(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 depreciation allowed for the year or part of the year.

(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."

44. In these calculations, interest on loan has been worked out as hereinafter:-

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

(ii) The repayment for the tariff period 2014-19 has been considered to be equal to the depreciation allowed for that period; and

(iii) Weighted average rate of interest on actual average loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

45. The petitioner has submitted that it be allowed to bill and adjust impact on Interest on Loan due to change in interest due to floating rate of interest applicable, if any, from the respondents. The interest on loan has been calculated on the basis of rate prevailing as on the tariff date of commercial operation. Any change in rate of interest subsequent to the tariff date of commercial operation will be considered at the time of truing- up.

46. Based on above, details of Interest on Loan calculated are as follows:-

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Gross Normative Loan	1168.71	1361.21	1600.74
Cumulative Repayment upto Previous Year	0.00	95.15	206.86
Net Loan-Opening	1168.71	1266.05	1393.88
Addition due to Additional Capitalisation	192.49	239.53	79.84
Repayment during the year	95.15	111.71	123.75
Net Loan-Closing	**1266.05**	**1393.88**	**1349.97**
Average Loan	1217.38	1329.97	1371.92
Weighted Average Rate of Interest on Loan	9.55%	9.55%	9.55%
Interest	**115.94**	**127.01**	**131.02**

Asset-2			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Gross Normative Loan	759.95	1207.99	1386.78
Cumulative Repayment upto Previous Year	0.00	55.51	153.37
Net Loan-Opening	759.95	1152.48	1233.41
Addition due to Additional Capitalisation	448.04	178.79	59.60
Repayment during the year	55.51	97.86	106.85
Net Loan-Closing	**1152.48**	**1233.41**	**1186.16**
Average Loan	956.21	1192.94	1209.78
Weighted Average Rate of Interest on Loan	8.56%	8.56%	8.56%
Interest	**61.25**	**102.17**	**103.61**

Asset-3			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Gross Normative Loan	641.90	1302.75	1453.65
Cumulative Repayment upto Previous Year	0.00	30.94	134.90
Net Loan-Opening	641.90	1271.80	1318.75
Addition due to Additional Capitalisation	660.85	150.90	75.45
Repayment during the year	30.94	103.96	112.49
Net Loan-Closing	**1271.80**	**1318.75**	**1281.71**
Average Loan	956.85	1295.28	1300.23
Weighted Average Rate of Interest on Loan	8.06%	8.06%	8.06%
Interest	**32.56**	**104.45**	**104.84**

47. The IOL is allowed considering all the loans submitted in Form-9C. The petitioner is directed to reconcile the total Gross Loan for the calculation of

weighted average Rate of Interest and for the calculation of IDC, which would be reviewed at the time of truing-up.

Depreciation

48. Regulation 27 of the 2014 Tariff Regulations with regard to depreciation specifies as below:-

> **"27. Depreciation:**
>
> (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.
>
> Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.
>
> (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.
>
> (3) 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 station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:
>
> Provided further that the capital cost of the Assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:
>
> Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.

4) 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.

(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."

49. The petitioner has claimed actual depreciation as a component of annual fixed charges. Depreciation has been allowed in accordance with Regulation 27 of the 2014 Tariff Regulations. The instant assets were put under commercial operation during 2016-17 and 2017-18. Accordingly, it will complete 12 years after 2028-29 and 2029-2030. As such, depreciation has been calculated annually based on Straight Line Method at the rates specified in Appendix-II to the 2014 Tariff Regulations.

50. Details of the depreciation allowed are as under:-

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Capital Cost	1669.59	1944.58	2286.77
Additional Capital expenditure	274.99	342.19	114.06
Closing Capital Cost	**1944.58**	**2286.77**	**2400.83**
Average Capital Cost	1807.09	2115.68	2343.80
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	1626.38	1904.11	2109.42
Remaining Depreciable Value	1626.38	1808.95	1902.56
Depreciation	**95.15**	**111.71**	**123.75**

Asset-2			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Capital Cost	1085.65	1725.70	1981.12
Additional Capital expenditure	640.05	255.42	85.14
Closing Capital Cost	**1725.70**	**1981.12**	**2066.26**
Average Capital Cost	1405.67	1853.41	2023.69
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	1265.11	1668.07	1821.32
Remaining Depreciable Value	1265.11	1612.55	1667.95
Depreciation	**55.51**	**97.86**	**106.85**

Asset-3			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Opening Capital Cost	917.00	1861.07	2076.64
Additional Capital expenditure	944.07	215.57	107.79
Closing Capital Cost	**1861.07**	**2076.64**	**2184.43**
Average Capital Cost	1389.03	1968.85	2130.53
Rate of Depreciation	5.2800%	5.2800%	5.2800%
Depreciable Value	1250.13	1771.97	1917.48
Remaining Depreciable Value	1250.13	1741.02	1782.58
Depreciation	**30.94**	**103.96**	**112.49**

Operation & Maintenance Expenses (O & M Expenses)

51. The petitioner has submitted that norms for O&M Expenses for the tariff period 2014-19 have been arrived on the basis of normalized actual O&M Expenses during the period 2008-09 to 2012-13. The petitioner has further submitted that the wage revision of the employees of the petitioner Company is due during the 2014-19 tariff period 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. BRPL has submitted that any increase in the employee cost due to wage revision must be taken care by

increasing the productivity levels of the petitioner company and the beneficiaries should not be burdened over and above the provisions in the 2014 Tariff Regulations.

52. We have considered the submissions of the petitioner. 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, any application filed by the petitioner in this regard will be dealt with in accordance with the appropriate provisions of the 2014 Tariff Regulations.

53. The O&M Expenses claimed by the petitioner are as follows:-

(₹ in lakh)

Asset	2016-17	2017-18	2018-19
Asset-1	109.13	113.06	116.81
Asset-2	81.78	113.06	116.81
Asset-3	46.48	113.06	116.81

54. The O&M Expenses norms specified in Regulation 29(3)(a) of the 2014 Tariff Regulations for the instant assets (for the relevant years) are as follows:-

(₹ in lakh per bay)

Element	2016-17	2017-18	2018-19
400 kV bay	64.37	66.51	68.71
220 kV bay	45.06	46.55	48.10

55. Accordingly, the O&M Expenses allowed for the instant assets are as follows:-

(₹ in lakh)

Asset	Element	2016-17	2017-18	2018-19
Asset-1	400 kV bay-1No and 220 kV bay-1No	109.13	113.06	116.81
Asset-2	400 kV bay-1No and 220 kV bay-1No	81.85	113.06	116.81
Asset-3	400 kV bay-1No and 220 kV bay-1No	46.17	113.06	116.81

Interest on Working Capital (IWC)

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

> *"28. Interest on Working Capital*
>
> (1) The working capital shall cover:
>
> (c) Hydro generating station including pumped storage hydro electric generating station and transmission system including communication system:
>
> (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"
>
> "(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."
>
> "(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;"

57. The petitioner is entitled to claim interest on working capital as per the 2014 Tariff Regulations. The components of the working capital and the petitioner's entitlement to interest thereon are discussed hereunder:-

(i) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M Expenses. The value of maintenance spares has accordingly been worked out.

(ii) O and M Expenses

Operation and maintenance expenses have been considered for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iii) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The petitioner has claimed the receivables on the basis of 2 month's annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 month's transmission charges.

(iv) Rate of interest on working capital

As per Proviso 3 of Regulation 28 of tariff regulation 2014, SBI Base rate 9.30% as on 1.4.2016 plus 350 basis points i.e. 12.80% has been considered for the assets, as the rate of interest on working capital.

58. The interest on working capital as determined is shown in the table given below:-

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Maintenance Spares	16.41	16.96	17.52
O & M expenses	9.12	9.42	9.73
Receivables	73.35	81.68	87.36
Total	**98.88**	**108.06**	**114.61**
Interest	**12.62**	**13.83**	**14.67**

Asset-2			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Maintenance Spares	16.41	16.96	17.52
O & M expenses	9.12	9.42	9.73
Receivables	59.86	72.46	76.60
Total	**85.40**	**98.84**	**103.86**
Interest	**8.18**	**12.65**	**13.29**

Asset-3			
Particulars	**2016-17 (pro-rata)**	**2017-18**	**2018-19**
Maintenance Spares	16.41	16.96	17.52
O & M expenses	9.12	9.42	9.73
Receivables	58.74	75.05	78.84
Total	**84.27**	**101.43**	**106.10**
Interest	**4.55**	**12.98**	**13.58**

Transmission charges

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

(₹ in lakh)

Asset-1			
Particulars	**2016-17 (Pro-rata)**	**2017-18**	**2018-19**
Depreciation	95.15	111.71	123.75
Interest on Loan	115.94	127.01	131.02
Return on equity	106.02	124.47	137.89
Interest on Working Capital	12.62	13.83	14.67
O & M Expenses	109.13	113.06	116.81
Total	**438.87**	**490.07**	**524.14**

Asset-2			
Particulars	**2016-17 (Pro-rata)**	**2017-18**	**2018-19**
Depreciation	55.51	97.86	106.85
Interest on Loan	61.25	102.17	103.61
Return on equity	61.85	109.04	119.05
Interest on Working Capital	8.18	12.65	13.29
O & M Expenses	81.85	113.06	116.81
Total	**268.64**	**434.78**	**459.62**

Asset-3			
Particulars	**2016-17 (Pro-rata)**	**2017-18**	**2018-19**
Depreciation	30.94	103.96	112.49
Interest on Loan	32.56	104.45	104.84
Return on equity	34.48	115.83	125.34
Interest on Working Capital	4.55	12.98	13.58
O & M Expenses	46.17	113.06	116.81
Total	**148.70**	**450.27**	**473.06**

Filing Fee and Publication Expenses

60. 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. BRPL has submitted that filing fee and other expenses may not be allowed. 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

61. 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) (b) and (2)(a) respectively of Regulation 52 of the 2014 Tariff Regulations.

Sharing of Transmission Charges

62. BRPL has submitted that the petitioner has not furnished the Transmission Service Agreement (TSA) and as per Regulation 3(63) of the 2014 Tariff

Regulations, the petitioner is required to submit the TSA. BRPL has submitted that the discussions in the ERPC & NRPC meetings cited by the petitioner can at best be taken note and cannot be treated as the TSA. In response, the petitioner in its rejoinder has submitted that as per clause 8 of Model TSA, signing of TSA is not mandatory. Further, BRPL has already signed TSA on 19.8.2011 and the petitioner has submitted a copy of TSA with BRPL. The petitioner has also submitted that the tariff for the instant Assets should be shared by the beneficiaries as per Regulation 43 of the 2014 Tariff Regulations.

63. We have considered the submissions of the petitioner and BRPL. 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.

64. This order disposes of Petition No. 236/TT/2016.

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