

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 439/TT/2014  
and  
Petition No. 438/TT/2014**

**Coram:**

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

**Date of Order : 15.03.2017**

**Petition No. 439/TT/2014**

**In the Matter of:**

Truing up of transmission tariff of 400 kV Double Circuit Jhajjar-Mundka Transmission line of Aravali Power Company Private Limited for the period 1.3.2011 to 31.3.2014 under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

**And in the Matter of:**

Aravali Power Company Private Limited,  
NTPC EOC R & D Building, Room No. 121 A,  
8A, Sector-24, Noida-201301 (U.P.)

**.....Petitioner**

**Vs**

1. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6, IInd Floor,  
Panchkula, Haryana-134 109
2. Tata Power Delhi Distribution Limited,  
Grid Sub Station, Hudson Road,  
Kingsway Camp, Delhi-110 009
3. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi-110 019



4. BSES Yamuna Power Limited,  
Shakti Kiran Building, Karkardooma,  
Delhi-110 092

....Respondents

**Petition No. 438/TT/2014**

**And in the Matter of:**

Approval of transmission tariff for Jhajjar-Mundka 400 kV D/C ISTS asset of Aravali Power Company Private Limited from 1.4.2014 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.

**And in the Matter of:**

Aravali Power Company Private Limited,  
1<sup>st</sup> & 2<sup>nd</sup> Floor, Pawanhans Towers,  
C-14, Sector-1, Noida-(UP) 201301

.....Petitioner

**Vs**

1. Haryana Power Purchase Centre (HPPC),  
Shakti Bhawan, Sector-VI,  
Panchkula, Haryana-134 109
2. Tata Power Delhi Distribution Limited,  
Grid Sub Station, Hudson Road,  
Kingsway Camp, Delhi-110 009
3. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi-110 019
4. BSES Yamuna Power Limited,  
Shakti Kiran Building, Karkardooma,  
Delhi-110 092

....Respondents

**Parties present**

**For Petitioner:** Shri Ventatesh, Advocate for APCPL  
Shri Sunil Kumar Goel, APCPL

**For Respondents:** Shri Vishal Anand, Advocate for BRPL  
Shri Rahul Kinra, Advocate for BRPL  
Shri Vinod Kapoor, Advocate for TPDDL



## ORDER

Aravali Power Company Private Limited (hereinafter referred to as “the petitioner”), a transmission licensee, has filed Petition No. 439/TT/2014 for truing up of tariff of 400 kV Double Circuit Jhajjar-Mundka Transmission line (hereinafter referred to as “the transmission asset”) for the period 1.3.2011 to 31.3.2014 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual expenditure during the period 1.3.2011 to 31.3.2014 and Petition No. 438/TT/2014 for determination of tariff for the instant asset for the period 1.4.2014 to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. This order has been issued after considering petitioner’s affidavits dated 5.5.2015, 5.8.2016 and 3.10.2016 in Petition No. 439/TT/2014 and affidavit dated 3.10.2016 in Petition No. 438/TT/2014.

3. No comments or suggestions have been received from the general public in response to the notices published by the petitioner under Section 64 of the Electricity Act, 2003 (“the Act”). The petitioner has served the petition to the respondents. BSES Rajdhani Power Limited (BRPL), Respondent No. 3 has filed reply vide affidavit dated 11.11.2016 in Petition No. 438/TT/2014. BRPL has raised the issue of O&M Expenses, recovery of filing fees, fee for determination of tariff, ISTS license fee etc. The petitioner has filed rejoinder, dated 5.12.2016, to the reply of BRPL. The issues raised by BRPL and the reply given by the petitioner are considered in the relevant paras of this order.



4. The hearing in the matters was held on 25.10.2016. Having heard the representatives of the petitioner, respondents and perused the material on record, we proceed to dispose of the petitions.

5. The brief facts of the case are as below:-

a. The petitioner is a joint venture company of NTPC Limited (NTPC), Haryana Power Generation Company Limited (HPGCL) and Indraprastha Power Generation Company Limited (IPGCL), incorporated under the Companies Act, 1956. The petitioner has set up its power station in district Jhajjar of Haryana State having an approved capacity of 1500 MW (3x500 MW). The transmission line was originally commissioned as a dedicated transmission line for evacuation of power from Jhajjar to Delhi.

b. The petitioner had filed Petition No. 239/2010 for determination of tariff for the subject transmission line from date of commercial operation to 31.3.2014 with prayer to declare transmission line as 'deemed ISTS'. The Commission vide its order dated 8.6.2013 directed the petitioner to file appropriate application for grant of transmission licence for the subject transmission line. Accordingly, the petitioner filed Petition No. 169/TL/2013 and was granted a transmission license vide order dated 7.11.2013 and the instant asset was considered as an ISTS line from 7.11.2013 onwards.

c. Subsequently, final tariff for the instant asset from 7.11.2013 to 31.3.2014 was allowed vide order dated 13.5.2014 in Petition No.239/2010.

d. The petitioner in Petition No.229/2010 had claimed the COD of the instant asset as 1.3.2011 and claimed tariff from 1.3.2011. Tariff was allowed for the instant asset from 5.3.2011 as Unit-I of the petitioners' generating station was



commissioned only on 5.3.2011. ATC for the period 5.3.2011 to 6.11.2013 was approved for the instant asset, in Petition No.229/2010, considering the instant asset as a dedicated transmission line for evacuation of power from its generating plant to Delhi.

e. The truing-up of generating station tariff has been allowed vide order dated 17.1.2017 and corrigendum dated 14.2.2017 in Petition No. 437/TT/2014, excluding the ATC for the instant asset for the period from 5.3.2011 to 6.11.2013.

f. As per the annual report of the petitioner company, no tax was paid by the petitioner for 2010-11 and accordingly RoE was not grossed up for 2010-11. However, MAT rate as applicable for 2011-12, 2012-13 and 2013-14 (period 1.4.2013 to 6.11.2013) respectively was considered to determine RoE in Petition No. 229/2010. The MAT rate applicable as on 2008-09 was considered to arrive at rate of return on equity in Petition No. 239/2010 for 2013-14 (period 7.11.2013 to 31.3.2014), which is required to be adjusted as per the actual MAT/tax rate applicable for the respective year at the time of truing up of tariff for 2009-14 tariff period.

g. Final tariff determined vide order dated 28.1.2015 in Petition No. 239/2010 for period 7.11.2013 to 31.3.2014 was based on admitted capital cost of ₹7863.90 lakh, as against the claim of ₹8283 lakh. The capital cost was restricted to the apportioned approved cost of ₹7863.90 lakh. The details of capital cost claimed by the petitioner are as under:-

(₹ in lakh)	
Particulars	Amount
Capital cost (Hard Cost) as on 5.3.2011	6872.00
IDC	847.00
IEDC	164.00
<b>Total as on 5.3.2011</b>	<b>7883.00</b>
Additional capitalisation (2011-12)	400.00



Total as on 31.3.2012	8283.00
Total as on 31.3.2013	8283.00
Total as on 7.11.2013	8283.00
Total as on 31.3.2014	8283.00

h. Further, final tariff determined vide order dated 6.5.2015 in Petition No. 229/2010 was based on admitted capital cost of ₹7799.82 lakh as on COD i.e. 5.3.2011, as against the claim of ₹7883 lakh. The projected additional capital expenditure of ₹400 lakh during 2011-12 was not considered as the capital cost exceeded the approved apportioned cost of ₹7863.90 lakh. The details of capital cost considered in Petition No.229/2010 as on 5.3.2011 and 6.11.2013 are as under:-

(₹ in lakh)	
Particulars	Amount
Capital cost	6872.00
IDC	763.82
IEDC	164.00
<b>Total (as on 5.3.2011)</b>	<b>7799.82</b>
Additional capitalisation (2011-12)	-
Total as on 31.3.2012 and 31.3.2013	7799.82
<b>Total capital cost as on 6.11.2013</b>	<b>7799.82</b>

i. Final tariff for the period from 5.3.2011 to 6.11.2013 and 7.11.2013 to 31.3.2014 allowed vide orders dated 6.5.2015 and 28.1.2015 in Petition No. 229/2010 and Petition No. 239/2010 respectively, in accordance with the 2009 Tariff Regulations are as under:-

Particulars	(₹ in lakh)				
	Petition Nos.				
	229/2010				239/2010
	(5.3.2011 to 31.3.2011)	2011-12	2012-13	(1.4.2013 to 6.11.2013)	(7.11.2013 to 31.3.2014)
Depreciation	30.04	406.04	406.04	244.74	164.55
Interest on Loan	43.54	565.81	522.54	293.71	184.22
Return on Equity	26.83	453.41	453.41	276.59	163.83
Interest on Working Capital	2.02	28.68	27.99	16.29	12.25
O & M Expenses	3.22	46.03	48.65	30.99	20.42
<b>Total</b>	<b>105.64</b>	<b>1499.98</b>	<b>1458.63</b>	<b>862.31</b>	<b>545.27</b>



## Truing-up of Annual Fixed Charges for 2009-14 tariff Period

6. As per Regulation 6 of the 2009 Tariff Regulations, the Commission shall carry out truing-up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

7. The details of the transmission charges claimed by the petitioner for the 2009-14 period are as under:-

Particulars	As dedicated line				As ISTS line
	2010-11 (5.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Depreciation	30.90	428.26	438.82	264.49	174.33
Interest on Loan	43.93	597.22	558.66	308.22	200.05
Return on Equity	33.98	471.50	483.13	294.70	194.24
Interest on Working Capital	2.18	30.02	29.83	17.59	11.54
O & M Expenses	3.22	46.03	48.65	30.99	20.42
<b>Total</b>	<b>114.21</b>	<b>1573.03</b>	<b>1559.10</b>	<b>916.00</b>	<b>600.57</b>

8. The details submitted by the petitioner in support of its claim for Interest on Working Capital are as under:-

Particulars	As dedicated line				As ISTS line
	2010-11 (5.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14 (1.3.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Maintenance Spares	6.53	6.90	7.30	4.65	3.06
O & M expenses	3.63	3.84	4.06	2.58	1.70
Receivables	257.33	262.17	259.85	152.67	100.10
<b>Total</b>	<b>267.49</b>	<b>272.91</b>	<b>271.20</b>	<b>159.90</b>	<b>104.86</b>
Rate of Interest	11.00%	11.00%	11.00%	11.00%	11.00%
<b>Interest</b>	<b>2.18</b>	<b>30.02</b>	<b>29.83</b>	<b>17.59</b>	<b>11.53</b>



## **Capital Cost and Additional Capital Expenditure**

9. Clause (1) and Clause (3) of Regulation 6 of the 2009 Tariff Regulations provide as follows:-

“(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.-----”

“(3) The generating company or the transmission licensee, as the case may be, shall submit for the purpose of truing up, details of capital expenditure and additional capital expenditure incurred for the period from 1.4.2009 to 31.3.2014, duly audited and certified by the auditors;”

10. The petitioner has submitted Revised Cost Estimate (RCE) approved by its Board of Directors in 54<sup>th</sup> meeting of held on 31.10.2014 and has claimed capital cost of ₹7883 lakh, as on COD i.e. 5.3.2011 and additional capital expenditure of ₹400 lakh during 2011-12, for the purpose of truing-up of tariff. The petitioner has submitted Auditors' Certificate dated 19.9.2014 vide affidavit dated 3.10.2016. The details of capital cost claimed by the petitioner are as under:-

Approved cost	RCE	Cost as on COD (5.3.2011)	Additional capital expenditure				Total completion cost
			2010-11	2011-12	2012-13	2013-14	
7863.90	8536.00	7883.00	-	400.00	-	-	8283.00

11. The total estimated completion cost of ₹8283 lakh as on 31.3.2014 is within the revised approved apportioned cost of ₹8536 lakh. Hence, there is no cost over-run in the case of instant transmission asset.

## **Time over-run**

12. The Commission vide order dated 6.5.2015 in Petition No. 229/2010, with regard to time over-run, held as follows:-





“97. In the present case, the petitioner has built the transmission system for evacuation of power from its generating station. The petitioner vide affidavit dated 8.3.2011 has submitted that the transmission line was complete and was charged in December, 2010. Unit-I of generating station was commissioned on 5.3.2011 and accordingly the tariff of the transmission line has also been worked out from 5.3.2011. The petitioner has not claimed IDC for the period from 1.3.2011 to 5.3.2011. Consequently, no adjustment of IDC has been considered in the capital cost on account of time over run in respect of the transmission line.”

13. Accordingly, in this order also, it has been considered that there is no time over-run in the commissioning of instant asset.

### **Treatment of IDC & IEDC**

14. The petitioner vide affidavit dated 3.10.2016 has submitted the details of IDC and its working, but, the petitioner has not separately indicated the amount of IDC and IEDC claimed in the Auditors' Certificate dated 19.9.2014, submitted with the affidavit. However, as per the RCE submitted by the petitioner, the estimate includes IDC amount. The allowable IDC has been worked out upto COD, based on the available information i.e. as per the loan details indicated in the working sheet of the IDC, submitted by the petitioner, vide affidavit dated 3.10.2016. The petitioner has submitted that the claimed IDC does not have any component of undischarged liability. Hence, the worked out IDC has been capitalized in the capital cost as on COD. Accordingly, the details of IDC submitted by the petitioner and worked out as on COD are as under:-

(₹ in lakh)			
IDC claimed as on COD as per Form-5B of the original petition (A)	Claimed notional IDC (B)	Total IDC claimed as on COD (A)+(B)	Worked out/ Allowed as on COD
847.00	28.00	875.00	803.36

15. The petitioner has claimed ₹28 lakh as notional IDC for the first 3 quarters of 2007-08. However, the petitioner has not utilised any debt for capital expenditure for the



instant transmission asset during first 3 quarters of 2007-08 and the first drawl of loan is in the last quarter of 2007-08 as per Form-14A submitted by the petitioner. Further, it is noted that there was neither actual drawl of loan for the generating station/transmission line nor for the company as a whole during first 3 quarters of 2007-08. Therefore, notional IDC is not being allowed prior to the actual date of drawl of loan, in case of instant asset. The Commission vide para 45(a) and 96 of order dated 6.5.2015 in Petition no. 229/2010 also did not allow the notional IDC of ₹28 lakh, prior to the actual date of drawl, due to absence of weighted average rate of interest during first 3 quarters of 2007-08.

16. Further, the petitioner has claimed IEDC amounting to ₹164 lakh upto 1.3.2011 i.e. claimed COD of the instant asset. In most of the transmission tariff petitions of Power Grid Corporation of India Limited, 5% of the estimated Hard Cost, as per their “Abstract cost Estimates”, is being considered as the IEDC limit. The IEDC of ₹164 lakh claimed by the petitioner on cash basis is 2.17% of the Hard Cost which is within the allowable limit of 5.00% and accordingly it is allowed.

**Capital Cost as on COD**

17. Therefore, the capital cost allowed as on COD i.e. 5.3.2011 is as under:-

Capital cost claimed as on COD on cash basis (Incl. IEDC)	Less:		Add: Allowable IDC	Capital cost as on COD considering allowable IDC & IEDC
	Claimed notional IDC	Claimed IDC		
7911.00	28.00	847.00	803.36	7839.36

(₹ in lakh)



### **Initial Spares**

18. The petitioner has claimed capitalisation against initial spares but has indicated that the total amount of ₹44 lakh as undischarged liability. Accordingly, claim for initial spares is not considered for tariff purpose in this order and the same will be considered after submission of details by the petitioner in the tariff period of 2014-19, if discharged.

### **Additional Capital Expenditure**

19. The petitioner has claimed additional capitalisation of ₹400 lakh during 2011-12 towards discharge of liabilities corresponding to works completed as on COD. Additional capital expenditure of ₹400 lakh is allowed under Regulation 9(1)(i) of the 2009 Tariff Regulations and considered for tariff purpose. Thus, the total capital cost of the transmission asset including additional capital expenditure incurred during 2011-12 works out to ₹8239.36 lakh, which is within the revised approved cost of ₹8536 lakh given in the RCE. Therefore, the capital cost allowed as on 31.3.2014 is as under:-

Particulars	As on COD as per Auditors' Certificate dated 19.9.2014 and Form-5B for notional IDC	Cost as on COD considered upto 5.3.2011 after considering worked out IDC and disallowing notional IDC	(₹ in lakh)	
			Add-cap allowed during 2011-12	Admitted cost as on 31.3.2014
Freehold Land	-	-	-	-
Leasehold Land	-	-	-	-
Building & Other Civil Works	-	-	-	-
Transmission Line	7911.00	7839.36	400.00	8239.36
Sub-Station Equipments	-	-	-	-
PLCC	-	-	-	-
<b>Total</b>	<b>7911.00</b>	<b>7839.36</b>	<b>400.00</b>	<b>8239.36</b>

20. The capital cost as on 5.3.2011, 6.11.2013 (date upto which it remained as a dedicated line) and 31.3.2014 allowed earlier vide orders dated 28.1.2015 and 6.5.2015



in Petition No. 239/2010 and 229/2010 respectively and considered now for trueing-up is as under:-

Approved	Capital cost	Notional IDC	Additional capital expenditure during 2009-14					(₹ in lakh)
			2009-10	2010-11	2011-12	2012-13	2013-14	Total cost as on 31.3.2014
vide order dated 28.1.2015	7863.90 (as on 7.11.2013)	-	-	-	-	-	-	7863.90
vide order dated 6.5.2015	7799.82 (as on 5.3.2011)	-	-	-	-	-	-	7799.82 (as on 6.11.2013)
Allowed in the instant petition	7839.36 (as on 5.3.2011)	-	-	-	400.00	-	-	8239.36

### **Debt: Equity Ratio**

21. Clause (2) of Regulation 12 of the 2009 Tariff Regulations provides that:-

“12. Debt-Equity Ratio. (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

22. The petitioner has claimed debt: equity ratio of 70:30 as on COD and for additional capital expenditure. It is in accordance with the Regulation 12 (2) of the 2009 Tariff Regulations and hence, same has been considered.

23. The details of the debt: equity considered for the purpose of tariff for 2009-14 tariff period are as follows:-



(₹ in lakh)

Particulars	Cost as on COD i.e.5.3.2011		Add-cap 2011-12		Cost as on 31.3.2014	
	Amount	%	Amount	%	Amount	%
Debt	5487.55	70.00	280.00	70.00	5767.55	70.00
Equity	2351.81	30.00	120.00	30.00	2471.81	30.00
<b>Total</b>	<b>7839.36</b>	<b>100.00</b>	<b>400.00</b>	<b>100.00</b>	<b>8239.36</b>	<b>100.00</b>

### Return on Equity ("RoE")

24. Regulation 15 of the 2009 Tariff Regulations provide that

"15. (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation:

Provided that in case of projects commissioned on or after 1st April, 2009, an additional return of 0.5% shall be allowed if such projects are completed within the timeline specified in **Appendix-II**:

Provided further that the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever.

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be:

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

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

Where t is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee as the case may be, shall recover the shortfall or refund the excess Annual Fixed charge on account of Return on Equity due to change in applicable Minimum Alternate/ Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission;

Provided further that Annual Fixed charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective financial year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations".



25. The variation in the tax rate during the 2009-14 tariff period applicable to the petitioner as per the Finance Act of the relevant year for the purpose of grossing up of Return on Equity (RoE) is as under:-

Year	MAT Rate claimed in the current petition (in % age)	Grossed up ROE (Base Rate/(1-t)) claimed in the current petition (in % age)
2010-11	19.931	19.358
2011-12	20.008	19.377
2012-13	20.008	19.377
2013-14	20.961	19.610

26. However, the petitioner has not paid any tax for 2010-11 as per its annual report and accordingly RoE has not been grossed up and the MAT rate is considered NIL for 2010-11. The details of return on equity calculated are as given under:-

Particulars	(₹ in lakh)				
	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Opening Equity	2351.81	2351.81	2471.81	2471.81	2471.81
Addition due to Additional Capitalisation	-	120.00	-	-	-
Closing Equity	2351.81	2471.81	2471.81	2471.81	2471.81
Average Equity	2351.81	2411.81	2471.81	2471.81	2471.81
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for the respective year	0.000%	20.008%	20.008%	20.961%	20.961%
Rate of Return on Equity (Pre-Tax)	15.500%	19.377%	19.377%	19.610%	19.610%
<b>Return on Equity (Pre-Tax)</b>	<b>26.97</b>	<b>467.34</b>	<b>478.96</b>	<b>292.16</b>	<b>192.56</b>

27. The difference in the RoE approved earlier and allowed now after truing up is on account of actual grossed up RoE based on actual MAT rate. The RoE as trued up and allowed is as follows:-



(₹ in lakh)

Return on Equity	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
As approved vide Order dated 28.1.2015	-	-	-	-	163.83
As approved vide Order dated 6.5.2015	26.83	453.41	453.41	276.59	-
Claimed by the petitioner	33.98	471.50	483.13	294.70	194.24
Allowed after true up in this order	<b>26.97</b>	<b>467.34</b>	<b>478.96</b>	<b>292.16</b>	<b>192.56</b>

### Interest on Loan (“IoL”)

28. Regulation 16 of the 2009 Tariff Regulations provides that:-

“16. (1) The loans arrived at in the manner indicated in regulation 12 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2009 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2009 from the gross normative loan.

(3) The repayment for the year of the tariff period 2009-14 shall be deemed to be equal to the depreciation allowed for that year:

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed,.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.



(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiary or the transmission customers shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

29. Regulation 16 of the 2009 Tariff Regulations provide the methodology for working out weighted average rate of interest. The petitioner has indicated ₹5798 lakh as funding through loan as on 31.3.2014 in Form-6 of the petition. The petitioner, vide RoP dated 20.9.2016 was directed to submit separate information for transmission loan portfolio, which has not been submitted by the petitioner. Thus, the loan has been considered as 70% of the claimed capital cost of ₹7883 lakh as on COD, as well as for add-cap during 2011-12. Further, for loan corresponding to add-cap of 400 lakh, the weighted average rate of interest has been worked out as 11.02% and the same has been considered for the add-cap till 31.3.2014 for the purpose of truing-up of tariff calculations in this order.

30. In these calculations, interest on loan has been worked out as follows:-

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

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





(c) Weighted average rate of interest on actual average loan worked out as per (a) above is applied on the normative average loan during the year to arrive at the interest on loan;

(d) The repayment of actual loan is 60 quarterly instalments starting from October, 2012 ; and

(e) The petitioner has claimed the PFC rate of interest for 2010-11 as 10.75% and the same has been considered while calculating the Weighted average rate of interest.

31. Detailed calculations of the weighted average rate of interest have been given at Annexure-1 to this order.

32. The details of Interest on Loan calculated are as under:-

Particulars	As a dedicated line				As ISTS line
	2010-11	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Gross Normative Loan	5487.55	5487.55	5767.55	5767.55	5767.55
Cumulative Repayment upto Previous Year	-	30.62	455.10	890.14	1152.35
Net Loan-Opening	5487.55	5456.93	5312.46	4877.42	4615.20
Addition due to Additional Capitalisation	-	280.00	-	-	-
Repayment during the year	30.62	424.48	435.04	262.21	172.82
Net Loan-Closing	5456.93	5312.46	4877.42	4615.20	4442.38
Average Loan	5472.24	5384.70	5094.94	4746.31	4528.79
Weighted Average Rate of Interest on Loan	10.7500%	10.8152%	10.8201%	10.8201%	10.8201%
<b>Interest</b>	<b>43.52</b>	<b>582.37</b>	<b>551.28</b>	<b>309.54</b>	<b>194.67</b>

33. The difference in the approved IoL and that allowed after truing-up is on account of change in the weighted average rate of interest, which is computed as discussed



above based on loan portfolio and rate of interest. The details of IoL allowed are as under:-

Interest on Loan	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
As approved vide Order dated 28.1.2015	-	-	-	-	184.22
As approved vide Order dated 6.5.2015	43.54	565.81	522.54	293.71	-
Claimed by the petitioner	43.93	597.22	558.66	308.22	200.05
Allowed after true up in this order	<b>43.52</b>	<b>582.37</b>	<b>551.28</b>	<b>309.54</b>	<b>194.67</b>

### Depreciation

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

“17. **Depreciation** (1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site;

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff.

(3) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.



(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2009 from the gross depreciable value of the assets.

(6) Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.”

35. The date of commercial operation of the transmission asset covered in the petition fall in the year 2010-11. Accordingly, the asset will complete 12 years beyond 2013-14 and thus depreciation has been calculated annually based on Straight Line Method on the admitted capital expenditure upto 31.3.2014.

36. The details of the depreciation calculated are as under:-

Particulars	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Opening Gross Block	7839.36	7839.36	8239.36	8239.36	8239.36
Additional Capital expenditure	-	400.00	-	-	-
Closing Gross Block	7839.36	8239.36	8239.36	8239.36	8239.36
Average Gross Block	7839.36	8039.36	8239.36	8239.36	8239.36
Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%
Depreciable Value	7055.43	7235.43	7415.43	7415.43	7415.43
Remaining Depreciable Value	7055.43	7204.81	6960.33	6525.29	6263.08
<b>Depreciation</b>	<b>30.62</b>	<b>424.48</b>	<b>435.04</b>	<b>262.21</b>	<b>172.82</b>

37. The difference in the approved depreciation and that allowed after truing-up is on account of revision in opening gross block and change in gross block during the 2009-14 tariff period. The depreciation allowed is as follows:-



Depreciation	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
As approved vide Order dated 28.1.2015	-	-	-	-	164.55
As approved vide Order dated 6.5.2015	30.04	406.04	406.04	244.74	-
Claimed by the petitioner	30.90	428.26	438.82	264.49	174.33
Allowed after true up in this order	<b>30.62</b>	<b>424.48</b>	<b>435.04</b>	<b>262.21</b>	<b>172.82</b>

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

38. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. These are not required to be trued-up as these are allowed as per norms. Accordingly, the total allowable O&M Expenses for the instant asset have been worked out based on norms of O&M Expenses and allowed as earlier vide orders dated 28.1.2015 and 6.5.2015 in Petition No. 239/2010 and 229.2010 respectively. The details are as under:-

O&M Expenses	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
As approved vide Order dated 28.1.2015	-	-	-	-	20.42
As approved vide Order dated 6.5.2015	3.22	46.03	48.65	30.99	-
Claimed by the petitioner	3.22	46.03	48.65	30.99	20.42
Allowed after true up in this order	<b>3.22</b>	<b>46.03</b>	<b>48.65</b>	<b>30.99</b>	<b>20.42</b>

### Interest on Working Capital (IWC)

39. As per the 2009 Tariff Regulations the components of the working capital and the interest thereon are discussed as under:-



**(i) Receivables:** As per Regulation 18(1) (c) (i) of the 2009 Tariff Regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

**(ii) Maintenance spares:** Regulation 18(1)(c)(ii) of the 2009 Tariff Regulations provides for maintenance spares @ 15% per annum of the O & M Expenses from 1.4.2009. The value of maintenance spares has accordingly been worked out.

**(iii) O & M Expenses:** Regulation 18(1) (c) (iii) of the 2009 Tariff Regulations provides for O&M Expenses for one month as a component of working capital. The petitioner has claimed O&M Expenses for 1 month of the respective year in the petition. This has been considered in the working capital.

**(iv) Rate of interest on working capital:** As provided under 18(3) of the 2009 Tariff Regulations read with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Second Amendment) Regulations, 2011 dated 21.6.2011, SBI Base rate of 7.50% as on 1.7.2010 plus 350 Bps i.e. 11.00% has been considered for the purpose of working out the interest on working capital.

40. Necessary calculations in support of interest on working capital are as under:-

Particulars	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Maintenance Spares	6.53	6.90	7.30	4.65	3.06
O & M expenses	3.63	3.84	4.05	2.58	1.70



Receivables	239.62	258.30	257.25	152.07	98.64
<b>Total</b>	<b>249.78</b>	<b>269.04</b>	<b>268.60</b>	<b>159.30</b>	<b>103.41</b>
Rate of Interest	11.00%	11.00%	11.00%	11.00%	11.00%
<b>Interest</b>	<b>2.03</b>	<b>29.59</b>	<b>29.55</b>	<b>17.52</b>	<b>11.37</b>

41. The difference in the approved IWC and that allowed after truing up is on account of change in the receivables during the 2009-14 tariff period. The IWC allowed are as under:-

Interest on Working Capital	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
As approved vide Order dated 28.1.2015	-	-	-	-	12.25
As approved vide Order dated 6.5.2015	2.02	28.68	27.99	16.29	-
Claimed by the petitioner	2.18	30.02	29.83	17.59	11.54
Allowed after true up in this order	<b>2.03</b>	<b>29.59</b>	<b>29.55</b>	<b>17.52</b>	<b>11.37</b>

### Annual Fixed Charges (AFC) for 2009-14 tariff period

42. The details of the various components of the trued up annual fixed charges for the instant transmission asset for tariff period 2009-14 allowed are as under:-

Particulars	As a dedicated line				As ISTS line
	2010-11 (pro-rata)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
Depreciation	30.62	424.48	435.04	262.21	172.82
Interest on Loan	43.52	582.37	551.28	309.54	194.67
Return on Equity	26.97	467.34	478.96	292.16	192.56
Interest on Working Capital	2.03	29.59	29.55	17.52	11.37
O & M Expenses	3.22	46.03	48.65	30.99	20.42
<b>Total</b>	<b>106.35</b>	<b>1549.80</b>	<b>1543.48</b>	<b>912.43</b>	<b>591.85</b>



## Determination of Annual Transmission Charges for 2014-19

43. The true-up tariff for the instant transmission asset up to 2009-14 tariff period has been granted based on the actual COD of the element.

44. The petitioner has claimed the transmission charges as under:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	438.82	438.82	438.82	438.82	438.82
Interest on Loan	469.54	421.14	372.73	324.33	275.93
Return on Equity	488.94	488.94	488.94	488.94	488.94
Interest on Working Capital	34.73	33.70	32.67	31.65	30.63
O&M Expenses	46.42	48.00	49.57	51.21	52.92
<b>Total</b>	<b>1478.44</b>	<b>1430.59</b>	<b>1382.74</b>	<b>1334.95</b>	<b>1287.24</b>

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

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	6.96	7.20	7.44	7.68	7.94
O & M Expenses	3.87	4.00	4.13	4.27	4.41
Receivables	246.41	238.43	230.46	222.49	214.54
<b>Total</b>	<b>257.24</b>	<b>249.63</b>	<b>242.03</b>	<b>234.44</b>	<b>226.89</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>34.73</b>	<b>33.70</b>	<b>32.67</b>	<b>31.65</b>	<b>30.63</b>

## Capital Cost

46. Clause (1) and (3) 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) -----

(3) The Capital cost of an existing project shall include the following:

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;



(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

47. The instant asset has only one element i.e. transmission line and the capital cost of transmission line as admitted as on 31.3.2014 has been considered as capital cost as on 1.4.2014. Thus, ₹8239.36 lakh has been considered as the admitted capital cost of the instant asset as on 1.4.2014 is as under:-

(₹ in lakh)	
Particulars	Capital cost as on 31.3.2014 as determined in true up of 2009-14
Freehold Land	-
Leasehold Land	-
Building & Other Civil Works	-
Transmission Line	8239.36
Sub-Station Equipments	-
PLCC	-
<b>Total</b>	<b>8239.36</b>

### **Additional Capital Expenditure**

48. The petitioner has not claimed any projected additional capital expenditure during the tariff period 2014-19. Accordingly the capital cost of the instant asset remains ₹8239.36 lakh as on 31.3.2019. However, the petitioner has submitted that in case of any add-cap carried out during 2014-19 tariff period, it would approach the Commission with revised add-cap. Therefore, the petitioner is directed to submit the details of add-cap, if any, alongwith proper justification of same and Auditors' Certificate at the time of truing-up

### **Initial Spares**

49. The petitioner, vide affidavit dated 17.10.2016, has submitted that the liability of ₹52.36 lakh corresponding to initial spares for 2013-14 and 2014-15 has not been





discharged and therefore not claimed in tariff. Thus, the allowable initial spares for 2014-19 tariff period have not been considered in this order. However, the claim for initial spares would be reviewed at the time of truing-up, on submission of audited year-wise discharge details for initial spares for 2014-19 tariff period. The petitioner is directed to submit the audited capital cost, for the instant asset at the time of truing-up.

### **Debt: Equity Ratio**

50. Clause 3 of Regulation 19 of the 2014 Tariff Regulations specifies as follows:-

“(3) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2014, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.”

51. The debt: equity ratio of 70: 30 was admitted after true-up for the tariff period ending 31.3.2014 for instant asset. The details of the debt: equity as on 1.4.2014 and as on 31.3.2019 considered for the purpose of tariff for the 2014-19 tariff period are as under:-

(₹ in lakh)

Particulars	As on 1.4.2014		As on 31.3.2019	
	Amount	%	Amount	%
Debt	5767.55	70.00	5767.55	70.00
Equity	2471.81	30.00	2471.81	30.00
<b>Total</b>	<b>8239.36</b>	<b>100.00</b>	<b>8239.36</b>	<b>100.00</b>

### **Interest on Loan (“IOL”)**

52. Regulation 26 of the 2014 Tariff Regulations with regard to Interest on Loan specifies 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 decapitalisation 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.”

53. The IOL has been worked out in accordance with Regulation 26 of the 2014 Tariff Regulations. In these calculations, interest on loan has been worked out as hereinafter:-

(a) Closing figures of loan portfolio for true-up of 2009-14 tariff period have been considered as opening figures for 2014-19 tariff period. Gross amount of loan, repayment of instalments & rate of interest and weighted average rate of interest on actual average loan have been considered as per the petition;

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

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



54. The petitioner, vide affidavit dated 17.10.2016 has submitted the rate of interest for PFC loan for the period 2014-19 as 11.03% and the same rate has been used for working out the weighted average rate of interest for loan portfolio. The rate of interest is subject to truing-up on submission of actual rate of interest at the time of truing-up.

55. The details of weighted average rate of interest are placed at Annexure-2 and the IOL has been worked out and allowed as below:-

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross loan opening	5767.55	5767.55	5767.55	5767.55	5767.55
Cumulative Repayment upto previous year	1325.17	1760.21	2195.25	2630.29	3065.33
Net Loan-Opening	4442.38	4007.34	3572.30	3137.26	2702.23
Additions during the year	0.00	0.00	0.00	0.00	0.00
Repayment during the year	435.04	435.04	435.04	435.04	435.04
Net Loan-Closing	4007.34	3572.30	3137.26	2702.23	2267.19
Average Loan	4224.86	3789.82	3354.78	2919.75	2484.71
Weighted Rate of Interest	11.03%	11.03%	11.03%	11.03%	11.03%
<b>Interest</b>	<b>466.00</b>	<b>418.02</b>	<b>370.03</b>	<b>322.05</b>	<b>274.06</b>

### **Return on Equity (“ROE”)**

56. Clause (1) and (2) of Regulation 24 and Clause (1) and (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:

(i) 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:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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.”

57. The petitioner has computed ROE at the rate of 19.610% after grossing up the ROE with MAT rate as per the above Regulations. 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), 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 for tariff period 2014-19, which shall be trued up with actual tax rate in accordance with Regulation 25 (3) of the 2014 Tariff Regulations. Accordingly, the ROE determined and allowed is as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2471.81	2471.81	2471.81	2471.81	2471.81
Addition due to Additional Capitalisation	-	-	-	-	-
Closing Equity	2471.81	2471.81	2471.81	2471.81	2471.81
Average Equity	2471.81	2471.81	2471.81	2471.81	2471.81
Return on Equity (Base Rate) (%)	15.50%	15.50%	15.50%	15.50%	15.50%
MAT rate for 2013-14 (%)	20.9605%	20.9605%	20.9605%	20.9605%	20.9605%
Rate of Return on Equity (Pre Tax) (%)	19.610%	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre Tax)</b>	<b>484.72</b>	<b>484.72</b>	<b>484.72</b>	<b>484.72</b>	<b>484.72</b>

### **Depreciation**

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

#### **"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.”

59. We have considered the submission made by the petitioner with reference to depreciation. Depreciation is allowed as provided under Regulation 27 of the 2014 Tariff Regulations. The details of the depreciation allowed are given hereunder:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross block	8239.36	8239.36	8239.36	8239.36	8239.36
Additions during the year due to projected additional capitalization	-	-	-	-	-
Closing Gross block	8239.36	8239.36	8239.36	8239.36	8239.36
Average gross block	8239.36	8239.36	8239.36	8239.36	8239.36



Rate of Depreciation (%)	5.2800%	5.2800%	5.2800%	5.2800%	5.2800%
Depreciable Value	7415.43	7415.43	7415.43	7415.43	7415.43
Remaining Depreciable Value	6090.25	5655.21	5220.18	4785.14	4350.10
<b>Depreciation</b>	<b>435.04</b>	<b>435.04</b>	<b>435.04</b>	<b>435.04</b>	<b>435.04</b>

### **Operation & Maintenance Expenses (“O&M Expenses”)**

60. Regulation 29 (4) (a) of the 2014 Tariff Regulations specifies the norms for operation and maintenance expenses for the transmission system based on the type of sub-station and the transmission line. Norms specified in respect of the elements covered in the instant petition are as under:-

<b>Particulars</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
D/C twin and triple conductor (₹ lakh/km)	0.707	0.731	0.755	0.780	0.806

61. The petitioner has claimed O&M Expenses of ₹104.38 lakh for the year 2014-15 against normative expenses of ₹46.42 lakh. The petitioner has also requested to relax the norms and allow the O&M Expense on actual basis. BRPL has submitted that the petitioner has not furnished the reasons for claiming more than what has been specified in the norms and hence O&M Expenses should be allowed as per the norms specified in the 2014 Tariff Regulations. In response, the petitioner has submitted that the instant asset is a short distance line of 65.66 km. The petitioner has submitted that Commission has derived the applicable norm for O&M Expenses for transmission lines based on the scale/economy of the assets owned and operated by PGCIL, for a short distance line like the instant line, the prescribed norms are inadequate. To ensure high levels of availability of the line, the petitioner is maintaining through an Annual Maintenance Contract (AMC) awarded to PGCIL, who are considered experts in the field. The charges of PGCIL towards the maintenance services are higher than what is admissible as per the norms specified by the Commission.



62. We have considered the submission of the petitioner and respondent. The petitioner has claimed the O&M Expenses based on actual charges paid to PGCIL, which are higher than the norms specified by the Commission. The norms specified in the 2014 Tariff Regulations are based on the historical data and prudent practices and it meets the requirement of O&M Expenses. Therefore, we do not find any reason for allowing the O&M Expenses higher than the norms specified in the 2014 Tariff Regulations.

63. Accordingly, O&M Expenses are worked out as per sub-clause (a) of clause (3) of Regulation 29 of the 2014 Tariff Regulations. The details are as given hereinafter:-

Particulars	COD: 5.3.2011				
	2014-15	2015-16	2016-17	2017-18	2018-19
65.66 km 400 kV D/C T/L	46.422	47.997	49.573	51.215	52.922

(₹ in lakh)

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

64. Clause 1 (c) and 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:

(a)-----

(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;”

65. 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% as on 1.4.2014 plus 350 basis points). The interest on working capital determined is as below:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	6.96	7.20	7.44	7.68	7.94
O & M expenses	3.87	4.00	4.13	4.27	4.41
Receivables	244.44	236.54	228.63	220.74	212.86
<b>Total</b>	<b>255.27</b>	<b>247.74</b>	<b>240.20</b>	<b>232.69</b>	<b>225.21</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest</b>	<b>34.46</b>	<b>33.44</b>	<b>32.43</b>	<b>31.41</b>	<b>30.40</b>

### Annual Transmission Charges

66. The Annual Transmission Charges allowed for the instant transmission asset are as under:-

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	435.04	435.04	435.04	435.04	435.04
Interest on Loan	466.00	418.02	370.03	322.05	274.06
Return on Equity	484.72	484.72	484.72	484.72	484.72
Interest on Working Capital	34.46	33.44	32.43	31.41	30.40
O&M Expenses	46.42	48.00	49.57	51.22	52.92
<b>Total</b>	<b>1466.65</b>	<b>1419.22</b>	<b>1371.79</b>	<b>1324.44</b>	<b>1277.15</b>

### Filing Fee and Publication Expenses

67. The petitioner has sought reimbursement of fee paid by it for filing the true-up petition for tariff period 2009-14 as well as for filing the petition and publication expenses for tariff period 2014-19. BRPL has submitted that filing fees and publication expenses for tariff period 2014-19 may not be allowed. The petitioner shall be entitled



for reimbursement of the filing fees for true-up petition for tariff period 2009-14 as well as filing fees and publication expenses in connection with the tariff period 2014-19, directly from the beneficiaries on pro-rata basis in accordance with respective Tariff Regulations.

### **Licence Fee**

68. The petitioner has requested to allow license fee both for tariff period 2009-14 and 2014-19. BRPL has submitted that it may not be allowed. The petitioner shall be entitled for reimbursement of licence fee in accordance with respective Tariff Regulations.

### **Sharing of Transmission Charges**

69. The transmission charges of the dedicated transmission line shall be paid by the beneficiaries as per PPA from COD to a day prior to date of transmission licence i.e. 6.11.2013. From the date of transmission licence i.e. 7.11.2013, 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.

70. This order disposes of Petition No. 439/TT/2014 and 438/TT/2014.

sd/-  
**(M.K. Iyer)**  
Member

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

sd/-  
**(A.K. Singhal)**  
Member



## Annexure-1

(₹ in lakh)

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>						
	Details of Loan	As a dedicated line				As ISTS line
		2010-11 (5.3.2011 to 31.3.2011)	2011-12	2012-13	2013-14 (1.4.2013 to 6.11.2013)	2013-14 (7.11.2013 to 31.3.2014)
	<b>Years</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>
<b>1</b>	<b>PFC</b>					
	Gross loan opening	5518.10	<b>5518.10</b>	<b>5518.10</b>	<b>5518.10</b>	<b>5518.10</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>183.94</b>	<b>459.84</b>
	Net Loan-Opening	5518.10	5518.10	5518.10	5334.16	5058.26
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	183.94	275.91	91.97
	Net Loan-Closing	5518.10	5518.10	5334.16	5058.26	4966.29
	Average Loan	5518.10	5518.10	5426.13	5196.21	5012.27
	Rate of Interest	10.75%	10.81%	10.81%	10.81%	10.81%
	Interest	593.20	596.51	586.56	561.71	541.83
	Rep Schedule	60 Quarterly equal instalments from Oct.2012				
<b>2</b>	<b>PFC</b>					
	Gross loan opening	0.00	<b>0.00</b>	<b>280.00</b>	<b>280.00</b>	<b>280.00</b>
	Cumulative Repayment upto DOCO/previous year	0.00	<b>0.00</b>	<b>0.00</b>	<b>9.33</b>	<b>23.33</b>
	Net Loan-Opening	0.00	0.00	280.00	270.67	256.67
	Additions during the year	0.00	280.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	9.33	14.00	4.67
	Net Loan-Closing	0.00	280.00	270.67	256.67	252.00
	Average Loan	0.00	140.00	275.33	263.67	254.33
	Rate of Interest	0.00%	11.02%	11.02%	11.02%	11.02%
	Interest	0.00	15.43	30.34	29.06	28.03
	Rep Schedule	60 Quarterly equal instalments from Oct.2012				
	<b>Total Loan</b>					
	Gross loan opening	5518.10	5518.10	5798.10	5798.10	5798.10
	Cumulative Repayment upto DOCO/previous year	0.00	0.00	0.00	193.27	483.18
	Net Loan-Opening	5518.10	5518.10	5798.10	5604.83	5314.93
	Additions during the year	0.00	280.00	0.00	0.00	0.00
	Repayment during the year	0.00	0.00	193.27	289.91	96.64
	Net Loan-Closing	5518.10	5798.10	5604.83	5314.93	5218.29
	Average Loan	5518.10	5658.10	5701.47	5459.88	5266.61
	<b>Weighted Average Rate of Interest</b>	<b>10.7500%</b>	<b>10.8152%</b>	<b>10.8201%</b>	<b>10.8201%</b>	<b>10.8201%</b>
	<b>Interest</b>	<b>593.20</b>	<b>611.93</b>	<b>616.91</b>	<b>590.77</b>	<b>569.85</b>



## Annexure-2

(₹ in lakh)

<b>CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN</b>						
	<b>Details of Loan</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	<b>Years</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>	<b>1.00000</b>
<b>1</b>	<b>PFC</b>					
	Gross loan opening	5518.10	<b>5518.10</b>	<b>5518.10</b>	<b>5518.10</b>	<b>5518.10</b>
	Cumulative Repayment upto DOCO/previous year	551.81	<b>919.68</b>	<b>1287.56</b>	<b>1655.43</b>	<b>2023.30</b>
	Net Loan-Opening	4966.29	4598.42	4230.54	3862.67	3494.80
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	367.87	367.87	367.87	367.87	367.87
	Net Loan-Closing	4598.42	4230.54	3862.67	3494.80	3126.92
	Average Loan	4782.35	4414.48	4046.61	3678.73	3310.86
	Rate of Interest	11.03%	11.03%	11.03%	11.03%	11.03%
	Interest	527.49	486.92	446.34	405.76	365.19
	Rep Schedule	60 Quarterly equal instalments from Oct.2012				
<b>2</b>	<b>PFC</b>					
	Gross loan opening	280.00	<b>280.00</b>	<b>280.00</b>	<b>280.00</b>	<b>280.00</b>
	Cumulative Repayment upto DOCO/previous year	28.00	<b>46.67</b>	<b>65.33</b>	<b>84.00</b>	<b>102.67</b>
	Net Loan-Opening	252.00	233.33	214.67	196.00	177.33
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	18.67	18.67	18.67	18.67	18.67
	Net Loan-Closing	233.33	214.67	196.00	177.33	158.67
	Average Loan	242.67	224.00	205.33	186.67	168.00
	Rate of Interest	11.03%	11.03%	11.03%	11.03%	11.03%
	Interest	26.77	24.71	22.65	20.59	18.53
	Rep Schedule	60 Quarterly equal instalments from Oct.2012				
	<b>Total Loan</b>					
	Gross loan opening	5798.10	5798.10	5798.10	5798.10	5798.10
	Cumulative Repayment upto DOCO/previous year	579.81	966.35	1352.89	1739.43	2125.97
	Net Loan-Opening	5218.29	4831.75	4445.21	4058.67	3672.13
	Additions during the year	0.00	0.00	0.00	0.00	0.00
	Repayment during the year	386.54	386.54	386.54	386.54	386.54
	Net Loan-Closing	4831.75	4445.21	4058.67	3672.13	3285.59
	Average Loan	5025.02	4638.48	4251.94	3865.40	3478.86
	<b>Weighted Average Rate of Interest</b>	<b>11.0300%</b>	<b>11.0300%</b>	<b>11.0300%</b>	<b>11.0300%</b>	<b>11.0300%</b>
	<b>Interest</b>	554.26	511.62	468.99	426.35	383.72

