

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 221/GT/2015**

**Coram:**

**Shri P.K.Pujari, Chairperson  
Dr. M.K.Iyer, Member  
Shri I.S.Jha, Member**

**Date of Order: 26<sup>th</sup> November, 2019**

**In the matter of**

Petition for determination of tariff of Pragati-III Combined Cycle Power Station (1371.2 MW) for the period 2014-19

**And**

**In the matter of**

Pragati Power Corporation Limited  
Himadri, Corporate Office,  
Rajghat Power House Complex,  
New Delhi- 110002

**.....Petitioner**

**Vs**

1. BSES Yamuna Power Ltd  
Shakti Kiran Building, Karkardooma,  
Delhi- 110092
2. New Delhi Municipal Council  
Regd. Office: Palika Kendra,  
Sansad Marg,  
New Delhi- 110001
3. Tata Power Delhi Distribution Ltd  
33 kV Substation, Hudson Line,  
Kingsway Camp, Delhi-110009
4. BSES Rajdhani Power Ltd  
BSES Bhawan, Nehru Place,  
New Delhi- 110019
5. Punjab State Power Corporation Limited  
The Mall, Patiala-147 001
6. Haryana Power Purchase Centre  
Shakti Bhawan, Sector-VI,  
Panchkula, Haryana-134109



7. Military Engineering Services,  
Gopi Nath Market,  
Delhi Cantonment- 110010

.....Respondents

**Parties present:**

Shri M.G.Ramachandran, Senior Advocate, PPCL  
Ms. Poorva Saigal, Advocate, PPCL  
Ms. Anushree Bardhan, Advocate, PPCL  
Ms. Tanya Sareen, Advocate, PPCL  
Shri Surendra Kumar, PPCL  
Shri S. Prakash, PPCL  
Shri R.K.Yadav, PPCL  
Shri Buddy A. Ranganadhan, Advocate, BRPL & BYPL  
Shri Rahul Kinra, Advocate, BRPL, BYPL & TPDDL  
Shri Anivesh Bharadwaj, Advocate, BRPL, BYPL & TPDDL  
Shri Sanjay Srivastava, BRPL  
Shri Kanishk, BRPL  
Shri Gurmeet Singh, BRPL  
Ms. Vasudha Sen, TPDDL  
Shri Chaitanya Mathur, TPDDL

**ORDER**

This Petition has been filed by the Petitioner, Pragati Power Corporation Limited for determination of tariff of Pragati-III Combined Cycle Power Project (1371.2 MW) (referred to as ‘the generating station’) for the period 2014-19 in terms of the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (“the 2014 Tariff Regulations”).

2. The capacity configuration of the different blocks of the generating station along with their scheduled date of commercial operation is as under:

	Unit	Capacity	Scheduled date of commercial operation
<b>Block-I</b>	GT -I	216 MW	27.12.2011
	GT -II	216 MW	16.7.2012
	GT-I with HRSG-I (ST-I)		1.4.2012
	GT I & II with HRSG-I & II (ST-I)	253.60 MW	14.12.2012
	Total	685.60 MW	
<b>Block-II</b>	GT -III	216 MW	28.10.2013
	GT -IV	216 MW	27.2.2014
	ST -II	253.6 MW	27.3.2014
	Total	685.60 MW	
	<b>Grand Total</b>	<b>1371.20 MW</b>	



3. The Commission vide its order dated 26.5.2015 in Petition No. 257/2010 had determined annual fixed charges of the generating station for the period 2009-14. Aggrieved by the said order, the Petitioner filed Appeal No. 175/2015 before the Appellate Tribunal for Electricity ('the Tribunal') on certain issues which was rejected by the Tribunal vide its judgment dated 12.7.2018. During the pendency of the said appeal, the Petitioner filed Petition No. 309/GT/2015 for revision of tariff of the generating station for 2009-14 after truing-up exercise along with the present Petition. The Commission vide its order dated 19.11.2019 in Petition No. 309/GT/2015 has determined the annual fixed charges as under:

(₹ in lakh)

	27.12.2011 to 31.3.2012	1.4.2012 to 15.7.2012	16.7.2012 to 13.12.2012	14.12.2012 to 31.3.2013	1.4.2013 to 27.10.2013	28.10.2013 to 26.2.2014	27.2.2014 to 26.3.2014	27.3.2014 to 31.3.2014
Return on Equity	1398.81	2355.99	4695.43	3641.73	7131.58	5066.66	1354.71	301.99
Interest on Loan	1968.60	3275.51	6421.87	4874.00	8924.22	6246.04	1666.94	377.43
Depreciation	1190.89	2009.05	4087.09	3177.10	6147.66	4383.82	1178.98	262.81
Interest on Working Capital	580.04	813.96	1358.25	1611.73	3442.78	1246.15	275.74	86.41
O&M Expenses	1494.82	2358.70	4922.92	4177.24	8516.86	6282.82	1748.33	376.44
<b>Annual fixed charges</b>	<b>6633.17</b>	<b>10813.21</b>	<b>21485.57</b>	<b>17481.79</b>	<b>34163.10</b>	<b>23225.49</b>	<b>6224.70</b>	<b>1405.07</b>

4. The Capital cost (vide Form 1(i)) and the annual fixed charges claimed by the Petitioner for the period 2014-19 are as under:

#### Capital Cost

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	379407.05	404609.05	417592.35	430928.55	430928.55
Add: Addition during the year/ period	25202.00	12983.30	13336.20	0.00	0.00
Less: De-capitalization during the year / Period	0.00	0.00	0.00	0.00	0.00
Less: reversal during the year /period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year/ period	0.00	0.00	0.00	0.00	0.00
<b>Closing Capital Cost</b>	<b>404609.05</b>	<b>417592.35</b>	<b>430928.55</b>	<b>430928.55</b>	<b>430928.55</b>



## Annual fixed charges

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	23062.36	24308.38	25086.52	25480.81	25480.81
Interest on Loan	27679.68	26474.62	24913.09	22772.01	20078.95
Depreciation	21442.84	22487.21	23207.05	23571.79	23571.79
Interest on Working Capital	30877.80	31115.46	31290.86	31473.61	31641.80
O & M Expenses	36405.36	38887.23	41533.65	44358.32	47388.67
<b>Total</b>	<b>139468.04</b>	<b>143272.91</b>	<b>146031.17</b>	<b>147656.53</b>	<b>148162.02</b>

5. In compliance with the directions of the Commission, the Petitioner has filed additional information and has served copies on the Respondents. Reply has been filed by the Respondents, BRPL & BYPL and TPDDL and the Petitioner has filed its rejoinder to the said replies. We now proceed to examine the claim of the Petitioner on prudence check, based on the submissions and the documents available on record, as stated in the subsequent paragraphs.

### Capital Cost as on 1.4.2014

6. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that 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. Clause (3) of Regulation 9 provides as under:

*“9(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.”*

7. The Petitioner has considered capital cost of ₹379407.05 lakh as on 1.4.2014 which is the same as the capital cost as on 31.3.2014 approved by the Commission vide order dated 26.5.2015 in Petition No. 257/2010. However, the Commission vide its order dated 19.11.2019 in Petition No. 309/GT/2015 has



approved the closing capital cost of ₹380249.65 lakh as on 31.3.2014. Accordingly, in terms of Regulation 9(3), the closing capital cost of ₹380249.65 lakh as on 31.3.2014 has been considered as the opening capital cost as on 1.4.2014 for determination of tariff for the period 2014-19.

### **Additional Capital Expenditure**

8. Regulation 14 (3) of the 2014 Tariff Regulations provides as under:

*“14(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*

*(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*

*(ii) Change in law or compliance of any existing law;*

*(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies or statutory authorities responsible for national security/internal security;*

*(iv) Deferred works relating to ash pond or ash handling system in the original scope of work;*

*(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;*

*(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*

*(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*

*(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*

*(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower*



*strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and*

*(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:*

*Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:*

*Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite based station shall be met out of compensation allowance:*

*Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.”*

9. The Petitioner has claimed additional capital expenditure on projected basis towards Addition in gross block amount (Bought out items and items transferred from CWIP) during the period 2014-17, expenditure towards additional facility like transformer oil, filtration plant, steel structure frame for storage, requirement of continuous AAQMS, setting up of IT infrastructure, procurement of furniture, multi-purpose fire tender, requirement of bulk storage tank for sodium chloride, portable lubricating oil purification unit, multi-stage filtration machine, provision of compactor in-store building and supply of 100 nos. of steel racks, DCP fire tender, portable high pressure pump, 40 MT rough terrain 360 degree slew crane etc for the period 2015-17. In justification of the same, the Petitioner has submitted that these assets facilitate the day to day operation and maintenance activity and to help in reducing downtime of various maintenance activity as well as plant availability. The projected additional capital expenditure claimed by the Petitioner is summarized as under:



(₹ in lakh)

Sl. No.		Regulations	2014-15	2015-16	2016-17
1	Addition in gross block amount during the period (Bought out items)	14(ii)	10490.40	0.00	0.00
2	Un-executed works		0.00	4515.50	4515.50
3	Addition in gross block amount during the period (transferred from CWIP)	14(i)	14712.00	3698.75	3698.75
4	Additional capitalization for additional facility		0.00	522.26	876.20
5	<b>Total Additional Capitalization</b>		<b>25202.40</b>	<b>8736.51</b>	<b>9090.45</b>
6	Discharge of liabilities	14(i)	0.00	4245.90	4245.90
7	<b>Total (5+6)</b>		<b>25202.40</b>	<b>12982.41</b>	<b>13336.35</b>
8	Un-discharged liability Included in above		2542.99	0.00	0.00
9	<b>Additional capital expenditure claimed (on cash basis)</b>		<b>22659.41</b>	<b>12982.42</b>	<b>13336.36</b>

10. The Respondent No. 3 TPDDL in its reply affidavit dated 11.11.2016 has submitted that the additional capitalization can only be allowed for works which form part of the original scope of work and are carried out within the cut-off date. It has, however, submitted that since the claims made by the Petitioner do not form part of original scope of work, they may not be allowed. It has further submitted that the claim for additional capitalization for efficient operation of a new plant cannot be permitted and hence the claim of the Petitioner is an unjustified burden on beneficiaries of the generating station. The Respondents BRPL & BYPL vide reply affidavit dated 11.11.2016 have submitted that the Petitioner has escalated capital expenditure from ₹6905.20 lakh to ₹36809.16 lakh which was not covered under the original scope of work in terms of Regulation 14(i) of the 2014 Tariff Regulations. They have further submitted that the details of projected additional capital expenditure are sketchy and without any basis. Accordingly, the Respondents have prayed that the projected additional capital expenditure may not be considered for inclusion in the capital cost for the purpose of tariff. In response, the Petitioner in its



rejoinder affidavit dated 16.12.2016 has submitted that the amount of ₹6905.20 lakh relates to the additional capital expenditure which was noted by the Commission in its order dated 26.5.2015. It has clarified that the COD of the various generating units were achieved during 2009-14 and the said amount relates to the period after COD till 31.3.2014. The Petitioner has stated that it is incorrect on the part of the Respondents to compare the quantum of additional capitalization claimed and considered till 31.3.2014 with additional capitalization claimed for the period 2014-17.

11. We have examined the matter. The COD of the generating station is 27.3.2014. Accordingly, the cut-off-date of the generating station is 31.3.2017. The Petitioner has submitted that the projected additional capital expenditure claimed during the period 2014-17 are within the original scope of work of the project and is within cut-off date of the generating station. In view of the above submissions, we are inclined to allow the projected additional capital expenditure of ₹22659.41 lakh in 2014-15, ₹12982.41 lakh in 2015-16 and ₹13336.35 lakh in 2016-17 claimed by the Petitioner, on cash basis, in terms of Regulation 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations.

12. Accordingly, the capital cost allowed for the purpose of tariff of the generating station for the period 2014-19 is as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	380249.65	402909.06	415891.48	429227.84	429227.84
Addition due to Projected additional Capital expenditure	22659.41	12982.42	13336.36	0.00	0.00
Closing Gross Block	402909.06	415891.48	429227.84	429227.84	429227.84

### Debt-Equity Ratio

13. Regulation 19 of the 2014 Tariff Regulations provides as under:





(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 utilized for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating Company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilisation made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication 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.

(4) In case of generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(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.”

14. The equity and normative loan as on 31.3.2014 allowed by the Commission in order dated 19.11.2019 in Petition No. 309/GT/2015 is as under:

(₹ in lakh)

	Amount
Debt	266174.76
Equity	114074.90
Total	380249.65

15. Accordingly, the same has been considered as normative loan and normative equity as on 1.4.2014. The Commission had considered the debt equity ratio of



70:30 for revision of tariff for the period 2011-14 in its order dated 19.11.2019 in Petition No. 309/GT/2015. In terms of the above regulation, the debt equity ratio of 70:30 has been considered in respect of additional capital expenditure.

### **Return on Equity**

16. Regulation 24 of the 2014 Tariff Regulations provides 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.*

17. Regulation 25 of the 2014 Tariff Regulations provides as under:

#### **“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.”

18. The Petitioner has claimed MAT rate of 2014-15 for the 1<sup>st</sup> year of the tariff period and MAT rate of 2015-16 for the remaining years of the tariff period, for grossing up of RoE. It is pertinent to mention that the aforesaid regulation provides for application of effective tax rate on the basis of the tax paid. As the effective tax rate has not been furnished by the Petitioner, we are inclined to allow the grossing up of the RoE, on projected basis, with MAT rate for the year 2013-14 as per consistent methodology adopted by the Commission. Accordingly, return on equity has been computed as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Equity	114074.90	120872.72	124767.44	128768.35	128768.35
Addition due to Additional Capitalisation	6797.82	3894.73	4000.91	0.00	0.00
<b>Closing Equity</b>	120872.72	124767.44	128768.35	128768.35	128768.35
Average Equity	117473.81	122820.08	126767.90	128768.35	128768.35
Return on Equity (Base Rate )	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	20.961%	20.961%	20.961%	20.961%	20.961%
Rate of Return on Equity (Pre Tax )	19.610%	19.610%	19.610%	19.610%	19.610%
<b>Return on Equity (Pre Tax)</b>	<b>23036.61</b>	<b>24085.02</b>	<b>24859.18</b>	<b>25251.47</b>	<b>25251.47</b>

### Interest on Loan

19. Regulation 26 of the 2014 Tariff Regulations provides as under:



*“26. Interest on loan capital: (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 de-capitalization 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 de-capitalization 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.*

*(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 beneficiaries or the long term transmission customers /DICs 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.”*

20. In terms of the above regulations, the outstanding normative loan as on 31.3.2014 has been considered as the normative loan as on 1.4.2014. The Petitioner vide Form 13A of the Petition has furnished the weighted average



rates of interest. It is however noticed that the Petitioner has calculated the weighted average rate of interest on the basis of loan balance at the beginning of the year. However, as per the methodology adopted by the Commission, the same has been revised on the basis of average loan balance of the respective year. Accordingly, the revised rates have been considered for the purpose calculation of interest on normative loan. The same is however subject to truing-up exercise in terms of Regulation 8 of the 2014 Tariff Regulations. Necessary calculations for interest on loan are as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional loan	266174.76	282036.34	291124.04	300459.49	300459.49
Cumulative Repayment of loan upto previous year	22437.41	42340.48	63149.35	84627.08	106443.73
Net Opening loan	243737.34	239695.86	227974.69	215832.41	194015.76
Addition due to additional capitalisation	15861.59	9087.69	9335.45	0.00	0.00
Repayment of loan during the period	19903.07	20808.87	21477.73	21816.66	21816.66
<b>Net Closing loan</b>	<b>239695.86</b>	<b>227974.69</b>	<b>215832.41</b>	<b>194015.76</b>	<b>172199.10</b>
Average loan	241716.60	233835.27	221903.55	204924.08	183107.43
Weighted Average Rate of Interest on Loan	11.44%	11.39%	11.39%	11.38%	11.38%
<b>Interest on loan</b>	<b>27653.17</b>	<b>26636.36</b>	<b>25268.26</b>	<b>23324.85</b>	<b>20830.71</b>

## Depreciation

21. Regulation 27 of 2014 Tariff Regulations provides 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.

(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.”

22. The weighted average rate of depreciation furnished by the Petitioner vide

Form 11 has been examined and is allowed subject to truing-up exercise.

Accordingly, depreciation has been calculated as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	380249.65	402909.06	415891.48	429227.84	429227.84
Addition due to Projected Additional Capitalisation	22659.41	12982.42	13336.36	0.00	0.00
Closing Gross Block	402909.06	415891.48	429227.84	429227.84	429227.84
Average Gross Block	391579.36	409400.27	422559.66	429227.84	429227.84



Value of Freehold Land included in Gross Block	-	-	-	-	-
Rate of Depreciation	5.08%	5.08%	5.08%	5.08%	5.08%
Depreciable Value (90.00%)	352421.42	368460.24	380303.69	386305.06	386305.06
Remaining Depreciable Value	329984.01	326119.76	317154.35	301677.98	279861.32
<b>Depreciation</b>	<b>19903.07</b>	<b>20808.87</b>	<b>21477.73</b>	<b>21816.66</b>	<b>21816.66</b>

### O&M Expenses

23. Regulation 29(1)(c) of the 2014 Tariff Regulations provides the following O&M expenses norms for gas based (advanced F-class machines) generating units:

<i>(in ₹ lakh/MW)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
26.55	28.36	30.29	32.35	34.56

24. The Petitioner has claimed the following O&M expenses:

<i>(₹ in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
36405.4	38887.20	41533.6	44358.3	47388.7

25. The Respondent TPDDL has submitted that the generating station does not have adequate fuel arrangement to run at normative capacity. It has further submitted that the cumulative plant availability of the generating station for 2015-16 was 64.55% due to non-availability of gas and the same is 68.47% till August 2016. The Respondent has submitted that the O&M expenses may be allowed accordingly based on the actual availability, as the normative O&M cost is based on assumption that the generating station shall maintain normative availability. The Respondent BRPL & BYPL have submitted that the data considered by the Commission while specifying the O&M expenses norms in respect of Advanced F-class machines for the period 2014-19 was limited to the historical data available for only two generating stations namely, SUGEN gas plant and Ratnagiri gas & power project. Accordingly, the Respondent has submitted that by allowing the O&M expenses for this generating station, the audited data of the Petitioner available for recent past may be considered in the



larger interest of consumers. In response to the above, the Petitioner in its rejoinder has submitted that the Commission after extensive consultation with various stakeholders and after considering the available data, had specified the normative O&M expenses in the 2014 Tariff Regulations. Hence, the Petitioner has submitted that once normative parameters have been provided, the actuals are not to be considered.

26. We have examined the matter. The normative O&M expenses notified by the Commission under Regulation 29(1)(c) of the 2014 Tariff Regulations were based on extensive stakeholders consultations and after considering the data submitted by the parties, hence, we find no reason to entertain the submissions of the Respondents and provide the O&M expenses at actuals. Accordingly, the claim of the Petitioner for normative O&M expenses for advanced F-class machines is as per Regulation 29(1)(c) and is therefore allowed.

### **Water Charges**

27. Regulation 29(2) of the 2014 Tariff Regulations provides as under:

*“29 (2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:*

*Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:*

*Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.”*

28. In addition to the above O&M expenses, the Petitioner has claimed water charges and has submitted that the generating station will be required to pay water charges at the present rate of ₹4.0/kl. It has also submitted that the daily requirement of raw water for all uses at the generating station is 72000 cum and





at the present consumption level, the water bill is ₹4.20 crore/year. The Commission vide ROP dated 2.8.2016 had directed the Petitioner to submit the details of water charges, such as contracted quantum of water and allocated quantity, actual annual water consumption for last 5 years, rate of water charges, copy of notification of water charges and the actual water charges paid duly certified by the Auditor. In compliance with the said direction, the Petitioner vide its affidavit dated 24.8.2016 has furnished the audited water charges paid for the period 2011-15 as under:

*(₹ in lakh)*

2011-12	28.71
2012-13	204.56
2013-14	148.49
2014-15	345.02

29. The Respondent TPDDL has submitted that additional expenditure on account of using sewage treated water from Rithala sewage treatment plant of Delhi Jal Board as raw water to produce cooling water may be disallowed. In response, the Petitioner in its rejoinder has submitted that the Tariff Policy, 2016 has acknowledged the importance of use of sewage treated water for the power plants falling within 50 km radius of Municipal Corporation of city. Accordingly, the Petitioner has submitted that contention of TPDDL is liable to be rejected.

30. The matter has been examined. It is noticed from the data furnished above that the actual audited water bill for the year 2014-15 is ₹345.02 lakh. The COD of the generating station is 27.3.2014 and the Petitioner has submitted the actual water expenses for the year 2014-15 only and projected water expenses has not been furnished for the period 2015-19. Therefore, the actual water charges for the year 2014-15 has been considered as the projected water



expenses for the period 2015-19. This is, however, subject to the truing-up of the expenses based on the actuals. Accordingly, water charges allowed for the period 2014-19 are as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
345.02	345.02	345.02	345.02	345.02

31. Based on the above, the total O&M expenses, including water charges, as claimed by the Petitioner and allowed for the purpose of tariff is as under:

(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses as claimed	36405.40	38887.20	41533.60	44358.30	47388.70
<b>O&amp;M Expenses as allowed</b>	36405.36	38887.23	41533.65	44358.32	47388.67
Water Charges as claimed	0.00	0.00	0.00	0.00	0.00
<b>Water Charges as allowed</b>	345.02	345.02	345.02	345.02	345.02
Total O&M Expenses as claimed (including Water charges)	36405.40	38887.20	41533.60	44358.30	47388.70
<b>Total O&amp;M Expenses allowed (including Water charges)</b>	36750.38	39232.25	41878.67	44703.34	47733.69

### Interest on Working Capital

32. Sub-section (b) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

*“28. Interest on Working Capital:*

*(1) The working capital shall cover*

*(b) Open-cycle Gas Turbine/Combined Cycle thermal generating stations:*

*(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;*

*(ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;*

*(iii) Maintenance spares @ 30% of operation and maintenance expenses specified in Regulation 29;*

*(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating*



*station on gas fuel and liquid fuel; and*  
*(v) Operation and maintenance expenses for one month.”*

### **Fuel Components in working capital**

33. Regulation 28 (1) (b) (i) of the 2014 Tariff Regulations provides that the working capital in respect of Open-cycle Gas Turbine/Combined Cycle thermal generating stations shall cover the fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel.

34. The Petitioner in Form 13B has claimed fuel cost in interest on working capital for the period 2014-17 as under:

	<i>(₹ in crore)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost for 30 days	638.415	640.16	638.415	638.415	638.415

35. The Respondent TPDDL has submitted that the fuel cost for one month as claimed by the Petitioner for the year 2014-15 is ₹638 crore which is approximately double of what was claimed by the Petitioner in 2013-14. It has pointed out that the Petitioner is taking 71% of the gas from costly spot agreement, which indicates that gas was not available with the Petitioner. It has also submitted that the details provided by the Petitioner regarding the various sources of fuel available with it indicate that it did not have firm gas commitment to declare 85% availability. Accordingly, the Respondent has submitted that the Petitioner does not have the required fuel arrangement to generate energy corresponding to normative availability and hence the claim of fuel cost cannot be allowed on normative basis. The Respondents BRPL & BYPL have reiterated the above submissions and has stated that the same are in addition to their submissions in Petition No. 89/MP/2016. In response, the Petitioner has submitted that the amount of working capital for 2013-14 cannot



be compared with the working capital for 2014-15 as the same are based on the actual operation of the generating station for the period particularly in relation to plant availability and fuel requirement. It has further submitted that as per the PPA signed between the Petitioner and the Respondents and other beneficiaries of the generating station, the Respondents and other beneficiaries have agreed to purchase power generated from R-LNG. The Petitioner has also stated that benefits of reduction in fuel are directly passed on to the beneficiaries including the Respondents herein, on month to month basis, as actual ECR in terms of the 2014 Tariff Regulations. The Petitioner has added that the fuel price for arriving at working capital has been calculated in terms of Regulations 28(1)(b) and 23 of the 2014 Tariff Regulations. The Petitioner while stating that interest on working capital has been worked out as per the provisions of the 2014 Tariff Regulations, has prayed that its submissions on availability of fuel in Petition No. 89/MP/2016 may be referred to.

36. The matter has been examined. Petition No. 89/MP/2016 was filed by the Respondents BRPL & BYPL for adjudication of disputes with the Petitioner on the issue of declaration of availability of the generating station. In the said Petition, the Respondents had raised various issues, including the submission that the generating station does not have adequate fuel to declare 85% availability. It was also submitted by the Respondents that in the absence of adequate gas, as evident from the Petitioner's own tariff filing, the Petitioner cannot declare 85% availability as claimed by it. Accordingly, the Respondents herein had submitted that the Petitioner had acted in violation of the Regulations while declaring availability as it does not have sufficient fuel for declaring availability and is taking inconsistent stand in its tariff filings before this Commission. In response to the above, the Petitioner herein had submitted that sufficient



quantum of gas has been available to the generating station for supply of electricity from the station. It was also submitted that the quantum of gas required for generating 85% of the Targeted Availability of electricity from the station, taking into account the designed heat rate of 1757.28 (to meet out the normative availability) is 4.97 MMSCMD. The Petitioner herein had contended that if the Respondents herein and other procurers had given the schedule for taking electricity to the extent of declaration of availability made by the generating station from time to time, the Petitioner herein would have been able to arrange for the delivery of the gas required and generate and supply electricity of the required quantum, with the exception of the time when the generating unit of the Gas Power Station was not available due to repair, shutdown etc. The Commission after considering the submissions of the parties rejected the submissions of the Respondents BRPL & BYPL in the said Petition and held the following:

*“42. PPCL is required to declare its requirement of gas in advance as per the agreements with the Gas suppliers for capacity declaration as per the Tariff Regulations. It may be appreciated that due to shortage in domestic gas there is no single source which can supply required gas on long term basis. Therefore, the petitioner has to arrange gas from different sources in different terms & conditions to cater to the requirement of gas. In view of above, we are of the view that the respondent has made adequate arrangements of gas for the station as per the requirement.*

xxxxx

*48. The Petitioners would appreciate the fact that in the existing scenario of shortage of cheaper gas, no gas based station can operate full capacity on cheaper fuel. The respondent arranged gas from different sources including spot-market but actually did not consume spot RLNG as the Petitioners were Scheduling power substantially lowered than the capacity declared (DC) by the respondent. The Commission in the order dated 6.2.2007 in Petition No. 148/2005 ( PPCL Vs. NTPC) and in the order dated 30.07.2013 in Petition No. 166/MP/2012 ( RGPPL Vs. MSEDCL) has acknowledged the fact that the gas based stations are facing shortage of domestic gas and consequently use of costly RLNG/ spot RLNG are being used for declaration of capacity. The Commission in the order dated 30.07.2013 in Petition No. 166/MP/2012 has observed as follows:*

xxxxx

*49. In view of above, we are unable to accept the argument of the Petitioners that the fixed cost payable to the respondent should be reduced based on the actual generation. The fixed cost is payable on the basis of the availability of units/station which is dependent on the declared capacity and the availability achieved during 2012- 13 to 2014-15 is more than Normative Availability of 85%. Therefore, we do not find any merit in the allegation made by the Petitioners and accordingly, the prayers of the Petitioners are rejected.”*



37. In view of the above, we find no reason to consider the submissions of the Respondents herein. It is observed in the present case that the claim of the Petitioner is based on price of non-APM and spot R-LNG. However, the Petitioner has not purchased R-LNG during the preceding three months and the same is evident from Form-15 furnished by the Petitioner. Accordingly, fuel cost for 30 days has been worked out based on the price and GCV of the non-APM procured gas for the month of January 2019, February 2019 & March 2019 and allowed in terms of the 2014 Tariff Regulations as under:

<i>(₹ in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
24306.61	24306.61	24306.61	24306.61	24306.61

#### **Liquid fuel stock for ½ month**

38. Since the Petitioner has not used any liquid fuel in generation of electricity, the same has not been considered in this order.

#### **Maintenance Spares**

39. Regulation 28(1)(b)(iii) of the 2014 Tariff Regulations provides for maintenance spares @ 30% of the O&M expenses. The Petitioner has claimed maintenance spares as under:

<i>(₹ in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
10922	11666	12460	13307	14217

40. The maintenance spares worked out and allowed in terms of the above regulation is as under:

<i>(₹ in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
11025.11	11769.68	12563.60	13411.00	14320.11

#### **Receivables**

41. Receivables equivalent to two months of capacity charge and energy charges has been worked out and allowed as under:



(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fixed charges -2 months	20320.61	20928.61	21412.85	21712.71	21830.87
Variable charges -2 months	49288.41	49423.45	49288.41	49288.41	49288.41

### O & M Expenses (1 month)

42. The O&M expenses for one month is considered and allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3062.53	3269.35	3489.89	3725.28	3977.81

### Rate of interest on working capital

43. Regulation 28(3) of the 2014 Tariff Regulations provides as under:

*“Interest on working Capital: (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.”*

44. In terms of the above regulations, SBI PLR of 13.50% (Bank rate 10.00 + 350 bps) has been considered for the purpose of calculating interest on working capital. Accordingly, Interest on working capital has been computed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of gas for 30 days	24306.61	24306.61	24306.61	24306.61	24306.61
O&M expenses - 1 month	3062.53	3269.35	3489.89	3725.28	3977.81
Maintenance spares	11025.11	11769.68	12563.60	13411.00	14320.11
Receivables Fixed charges- 2 months	20320.61	20928.61	21412.85	21712.71	21830.87
Receivables Variable charges- 2 months	49288.41	49423.45	49288.41	49288.41	49288.41
<b>Total</b>	<b>108003.28</b>	<b>109697.70</b>	<b>111061.36</b>	<b>112444.01</b>	<b>113723.81</b>
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
<b>Interest on Working Capital</b>	<b>14580.44</b>	<b>14809.19</b>	<b>14993.28</b>	<b>15179.94</b>	<b>15352.71</b>

### Operational Norms

45. The operational norms in respect of the generating station considered by the Petitioner are as under:



Description	Normative parameter
Target Availability	85%
Gross Station Heat rate (kcal/kWh)	1845.14
Auxiliary energy consumption (%) (CC)	2.50
Auxiliary energy consumption (%) (OC)	1.00

46. The operational norms claimed by the Petitioner are discussed as under:

#### **Normative Annual Plant Availability Factor (NAPAF)**

47. Regulation 36 of the 2014 Tariff Regulations provides as under:

*“(a) All Thermal generating stations, except those covered under clauses (b) (c) (d) &(e)- 85%.*

*Provided that in view of the shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.*

*The above provision shall be reviewed based on actual feedback after 3 years from 1.4.2014.”*

48. The Petitioner has considered the NAPAF of 85% for the purpose of recovery of annual fixed charge for the period 2014-19 and the same is in line with the operational norms specified under the 2014 Tariff Regulations. Accordingly, NAPAF of 85% has been considered for the period 2014-19.

#### **Auxiliary Energy Consumption**

49. The Petitioner has considered the Auxiliary Energy Consumption of 1% for open cycle and 2.5% for combined cycle operation for the period 2014-19. The auxiliary energy consumption considered by the Petitioner is in line with the operational norms specified under the 2014 Tariff Regulations and accordingly the same has been allowed.

#### **Gross Station Heat Rate (GSHR)**

50. The Petitioner has considered GSHR of 1845.14 kcal/kwh for the period 2014-19. In this regard, the Petitioner has furnished the guaranteed design gross turbine cycle heat rate as 1569 kcal/kwh and 1757.28 kcal/kwh on NCV and GHV basis respectively.





51 . The Respondents BRPL & BYPL have submitted that if GSHR is calculated in terms of the Regulation 14(7) of the CEA Regulations read with regulation 36(c) (d) of the 2014 Tariff Regulations, then the GSHR works out to 1785 kCal/kWh and accordingly the same may be allowed. In response, the Petitioner has submitted that the submission of the Respondents for arriving at allowable heat rate on ISO condition basis in place of design / guaranteed heat rate is not as per the 2014 Tariff Regulations. We are in complete agreement with the submissions of the Petitioner. The Commission vide its order dated 26.5.2015 in Petition No 257/2010 had allowed the GSHR as 1845.14 kcal/kwh for the generating station. Considering the value of guaranteed design gross turbine cycle heat rate as 1757.28 kcal/kwh (GHV basis) for combined cycle and 2624.55 kcal/kwh for open cycle, the GSHR works out to be 1845.14 kcal/kwh (1.05 x 1757.28) for combined cycle and 2755.78 kcal/kwh (1.05 x 2624.55) for open cycle and the same is allowed for the purpose of determination of tariff for the period 2014-19.

52. Based on the above discussions, the operational norms claimed by the Petitioner as above is considered for the purpose of tariff.

### Annual Fixed Charges

53. Based on the above, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	23036.61	24085.02	24859.18	25251.47	25251.47
Interest on Loan	27653.17	26636.36	25268.26	23324.85	20830.71
Depreciation	19903.07	20808.87	21477.73	21816.66	21816.66
Interest on Working Capital	14580.44	14809.19	14993.28	15179.94	15352.71
O&M Expenses	36750.38	39232.25	41878.67	44703.34	47733.69
<b>Total</b>	<b>121923.68</b>	<b>125571.68</b>	<b>128477.13</b>	<b>130276.26</b>	<b>130985.24</b>



## Energy Charge Rate (ECR)

54. Based on the above norms of operation, GCV and price of Natural Gas for the preceding three months i.e January 2014, February 2014 and March 2014, the ECR in ₹/kWh on ex-power plant may be considered for the purpose of tariff as under:

Description	Unit	2014-15, 2016-17 to 2018-19	2015-16 (leap year)
Capacity	MW	1371.20	1371.20
Gross Station Heat Rate (combined cycle)	kCal/kWh	1845.14	1845.14
Gross Station Heat Rate (open cycle)	kCal/kWh	2755.78	2755.78
Auxiliary Energy Consumption (combined cycle)	%	2.50	2.50
Auxiliary Energy Consumption (open cycle)	%	1.0	1.0
GCV of Gas (Weighted average)	Kcal/SCM	9643.68	9643.68
Price of Gas (Weighted average)	₹/ 1000 SCM	15138.60	15138.60
Rate of Energy Charge (ex-bus) (combined cycle)	₹/kWh	2.971	2.971
Rate of Energy Charge (ex-bus) (open cycle)	₹/kWh	4.370	4.370

55. The energy charge on month to month basis shall be billed by the Petitioner in terms of the 2014 Tariff Regulations.

## Month to Month Energy Charges

56. Clause 6, sub-clause (b) of Regulation 30 of the 2014 Tariff Regulations provides as under:

*“6. Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal place in accordance with the following formula:*

*(b) For gas based and liquid fuel based stations*

$$ECR = GHR \times LPPF \times 100 / \{CVPF \times (100 - AUX)\}$$

*Where,*

*AUX = Normative auxiliary energy consumption in percentage.*

*CVPF = Weighted Average Gross calorific value of primary fuel as received, in Kcal per kg, per litre or per standard cubic metre, as applicable.*

*ECR = Energy charge rate, in Rupees per kWh sent out.*

*GHR = Gross station heat rate, in KCal per kWh.*

*LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per*



*litre or per standard cubic metre, as applicable during the month.”*

57. The Petitioner shall compute and claim the Energy Charges on month to month basis from the beneficiaries based on the formula given under Regulation 30(6)(b) of the 2014 Tariff Regulations.

58. The Petitioner has been directed by the Commission in its order dated 19.2.2016 in Petition No. 33/MP/2014 to introduce helpdesk to attend to the queries of the beneficiaries with regard to the Energy Charges. Accordingly, contentious issues if any, which arise regarding the Energy Charges, should be sorted out with the beneficiaries at the Senior Management level.

#### **Application filing fee and Publication Expenses**

59. The Petitioner has sought reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the periods 2014-19. The Petitioner has deposited the filing fees in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The Petitioner has also incurred charges towards publication of the tariff petition in the newspapers. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations, the Petitioner is entitled to recover the filing fees and the expenses incurred on publication of notices for the period 2014-19 directly from the respondents. Accordingly, the expenses incurred by the Petitioner towards tariff application filing fees and for publication of notices for the above said tariff periods shall be directly recovered from the respondent beneficiaries on pro rata basis, on submission of documentary proof of the same.

60. The annual fixed charges approved for the period 2014-19 as above are subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.



61. Petition No. 221/GT/2015 is disposed of in terms of the above.

*Sd/-*  
(I.S.Jha)  
Member

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

*Sd/-*  
(P.K.Pujari)  
Chairperson

