

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 152/GT/2015

Coram:

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

Date of Order: 26.12.2017

In the matter of

Petition for truing-up of tariff for the period 2011-14 and determination of tariff for the period 2014-19 in respect of 1050 MW unit of Maithon Power Limited

And in the matter of

Maithon Power Ltd,
JeevanBharti, 10th Floor, Tower-I
124, Connaught Circus,
New Delhi-110001

.....**Petitioner**

Vs

1. Tata Power Delhi Distribution Ltd
33 kV Sub-station, Kingsway Camp
Delhi –110 009

2. Damodar Valley Corporation,
DVC Towers, VIP Road
Kolkata-700054

3. West Bengal State Electricity Distribution Company Ltd,
BidyutBhawan (8th Floor), Block-DJ, Sector-II
Salt Lake, Kolkata-700091

4. Punjab State Power Corporation Ltd
The Mall, Secretariat Complex,
Patiala – 147 001

5. Tata Power Trading Company Ltd,
Corporate Centre, 'A' Block
34, Sant Tukaram Road, Carnac Bunder,
Mumbai – 400006

.....**Respondents**

Parties present

Shri Amit Kapur, Advocate, MPL
Shri Akshat Jain, Advocate, MPL
Shri Pradip Roy, MPL
Shri Aveek Chatterjee, MPL
Shri Shubhayu Sanyal, MPL
Shri Avijeet Lala, Advocate, WBSEDCL
Ms. Molshree Bhatnagar, Advocate, WBSEDCL



ORDER

This petition has been filed by the petitioner, Maithon Power Limited (MPL), for revision of tariff in respect of Maithon Right Bank Thermal Power Plant (Units-I and II) (2 x 525 MW) (the generating station) for the period from 1.9.2011 to 31.3.2014, after true-up exercise in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) and for determination of tariff of the generating station for the period 2014-19 in terms of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”).

2. Maithon Right Bank Power Project is situated in Dhanbad District of the State of Jharkhand. The project is envisaged as a Mega Power Project in terms of Ministry of Finance's Notification No. 63/99 dated 13.5.1999 and 100/99-Customs dated 28.7.1999.

3. The petitioner is a public limited company incorporated on 26.7.2000 under the provisions of the Companies Act, 1956. MPL is a joint venture between Tata Power Trading Company Ltd. (TPTCL) having an equity participation of 74% and Damodar Valley Corporation (DVC) having an equity participation of the remaining 26%. The actual date of commercial operation of the different units of the generating station is as under:

Unit-I	1.9.2011
Unit-II	24.7.2012

4. Petition No. 274/2010 was filed by the Petitioner for approval of capital cost and determination of generation tariff of the generating station for the period from the date of commercial operation of Units-I (1.9.2011) and Unit-II (24.7.2012) till 31.3.2014 in terms of the 2009 Tariff Regulations. The Commission vide order dated 19.11.2014 had approved the capital cost for the units of the generating station as under:



(₹ in lakh)

	Unit I (1.9.2011)	Unit II (24.7.2012)	Total
Capital Cost claimed	251749.00	174035.00	425784.00
Less: Un-discharged Liabilities	0.00	30415.00	30415.00
Less: IDC claimed included in (1) above	32944.00	29396.00	62340.00
Add: IDC allowed	28016.00	24424.00	52440.00
Less: Refund of Excise Duty	1983.00	1646.00	3629.00
Capital Cost allowed	244839.00	137002.00	381841.00

5. Accordingly, the annual fixed charges allowed by the order dated 19.11.2014 is as under:

(₹ in lakh)

	2011-12	2012-13		2013-14
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	
Unit	I	I	I & II	I & II
Capacity (MW)	525	525	1050	1050
Return on Equity	7472.51	4010.33	14088.60	24032.14
Interest on Loan	11934.13	6942.02	23996.16	38078.38
Depreciation	7405.68	3974.46	14038.14	23946.05
Interest on Working Capital	2578.61	1399.34	5928.45	8914.64
O & M Expenses	4439.39	2518.62	11090.76	17052.00
Cost of Secondary Fuel Oil	1213.41	651.21	2641.17	3840.74
Total	35043.73	19495.98	71783.27	115863.96

Revision of Annual Fixed Charges

6. Clause (1) of Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(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.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

7. The petitioner in this petition has claimed revision of tariff for the period from 1.9.2011 to 31.3.2014 based on the actual additional capital expenditure incurred during the years 2012-13 and 2013-14 after truing up in accordance with the 2009 Tariff Regulations. Accordingly, the annual fixed charges claimed by the petitioner for the period 2011-14, based on the actual additional capital expenditure incurred during the years 2012-14 is as under:



(₹ in lakh)

	Unit-I			Unit-II	
	2011-12	2012-13	2013-14	2012-13	2013-14
Depreciation	7484.00	12865.00	12935.00	5270.00	8980.00
Interest on Loan	12072.00	21857.00	19787.00	8862.00	13639.00
Return on Equity	8373.00	14395.00	14657.00	5824.00	10099.00
Interest on working capital	2431.00	4474.00	4321.00	2868.00	4146.00
O & M Expenses	4439.00	8064.00	8526.00	5545.00	8526.00
Secondary fuel oil cost	1073.00	1858.00	1847.00	1278.00	1847.00
Total	35872.00	63514.00	62073.00	29647.00	47238.00

8. The petitioner has filed the additional information with copy to the respondents. The respondents KSEB, TPDDL and WBSEDCL have filed replies in the matter and the petitioner has filed its rejoinder to the said replies. The Commission accordingly reserved its order in the petition on 22.12.2016. Based on the submissions of the parties and the documents available on record, we proceed to revise the tariff of the generating station for the period 2011-14 after true-up exercise and also determine the tariff of the generating station for the period 2014-19 as stated in the subsequent paragraphs:

Capital Cost

9. Regulation 7 (1) (a) of the 2009 Tariff Regulations provides as under:

“7. Capital Cost. (1) Capital cost for a project shall include: (a) the expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan - (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check;”

10. As stated, the Commission by order dated 19.11.2014 in Petition No. 274/2010 had approved the capital cost of ₹244839.00 lakh as on COD of Unit-I (1.9.2011) and ₹381841.00 lakh as on COD of Unit-II (24.7.2012). The petitioner vide affidavit dated 27.5.2015 has claimed total capital cost of ₹384744.00 lakh (₹246444.00 lakh as on COD of Unit-I, ₹132793.00 lakh as on COD of Unit-II and Rs. 5507 lakh on account of cash expenditure for land). Gross fixed assets as on 24.7.2012 as per Auditor's Certificate dated 3.2.2017, furnished by the petitioner is ₹395370.00 lakh. It is noticed that the variation between capital cost as per Auditor's certificate and that as allowed by the Commission is mainly due to inclusion of booked IDC of ₹63000.00 lakh in the Auditor's



certificate as against ₹52400.00 lakh allowed by the Commission. The petitioner has also clarified that the variation of ₹2902.00 lakh between the capital cost claimed by the petitioner as against those allowed vide order dated 19.11.2014, is on account of increase in pre-operating expenses due to refund of Excise duty amounting to ₹3629.00 lakh and the decrease of ₹727.00 lakh on account of IDC computation. We examine the same as under:

Refund of Excise Dutyconcession

11. The Commission vide order dated 19.11.2014 in Petition No. 274/2010 had observed as under:

“55. As stated in para 43 (f) above, the petitioner has submitted that against the claim for ₹163.00 crore made before the Director General of Foreign Trade, the petitioner has obtained refund of ₹36.29 crore. Accordingly, this amount of ₹36.29 crore has been reduced from the capital cost of Units I and II based on the claim submitted by the petitioner. The balance amount with respect to the actual refund of excise duty, if any, would be considered at the time of truing up”

12. The petitioner vide affidavit dated 27.5.2015 has submitted the following:

“12. It is submitted that earlier the Project had been considered for Mega Power Status under the extant provisions of Mega Power Policy of the Government of India vide notification issued by MoP dated 28.07.1999. On the basis of the notification issued by MoP dated 28.7.1999, the Petitioner had awarded contracts taking into account the benefit available under the “Mega Power Policy” and submitted the application to the Director General of Foreign Trade (“DGFT”) under clause 8.3(b) of Foreign Trade Policy for claiming the reimbursement of Excise Duty paid to Contractors. The Petitioner was successful in getting refund of ₹36.29 crores and the same was reduced from the Capital Cost. However, DGFT, on the basis of the Minutes of the Policy Interpretation Committee (“PIC”) meeting dated 15.03.2011, informed that the application of MPL for obtaining the relief in payment of Excise Duty has been re-scrutinized. Since MPL is yet to receive the Mega Power Project Status from the Government of India, the above application has not been considered by the PIC Committee and the refund has been claimed back by the DGFT through the Letter dated 26.05.2011. The Petitioner has filed a Writ Petition before Hon’ble Delhi High Court challenging the constitutional validity of the decision of the DGFT at the above PIC meeting dated 15.03.2011. However, the matter has been referred to the Hon’ble Supreme Court since DGFT has approached the Hon’ble Supreme Court in similar other cases pending with other Generating Companies and EPC Contractors. In the event of final outcome of the above matter is in favour of DGFT, MPL is required to pay the earlier obtained refund of ₹36.29 crores back to DGFT and according capitalize the same in the Capital Cost of unit 1 and Unit 2 as on COD of the respective Units. The Petitioner therefore seeks liberty to request approval of the Hon’ble Commission for Capitalization of such refund of ₹36.29 crores and the Annual Fixed Charges pertaining to the corresponding Capitalization once the above liability is actually incurred by MPL.”

13. The respondent, KSEBL vide reply affidavit dated 11.1.2016 has submitted that any liability on the petitioner due to laxity of the petitionerin not obtaining ‘Mega Power Status’ for the project



may not be imposed on the beneficiaries if the judgment of Hon'ble Supreme Court goes against the petitioner with regard to the excise duty refund.

14. The petitioner vide rejoinder affidavit dated 8.3.2016 has submitted as under:

"The pre-operative expenses included in the project capital cost and claimed by the petitioner through IA No. 4/2013 and Petition no. 274/2010 were net off such refund. However, the Commission has while disposing of the petition through the tariff order dated 19.11.14, deducted such refund of ₹36.29 crore from the Capital cost of the project. Such deduction led to double accounting of the refund amount of ₹36.29 crore"

"....The petitioner has therefore considered such amount for inclusion in the capital cost of the project as the earlier claim of ₹163 crores was after consideration of the refund of ₹36.29 Crores."

15. The petitioner has further submitted that the pre-operative expenses included in the project capital cost and claimed by the petitioner in Petition No. 274/2010 were net-off such refund. It has pointed out that the Commission vide order dated 19.11.2014 had deducted such refund of ₹36.29 crore from the capital cost of the Project and such deduction has led to double accounting of the refund amount of ₹36.29 crore. The petitioner has further submitted that in terms of the observations of the Commission in order dated 19.11.2014 that the balance refund, if any, may be considered during the true-up exercise, it has considered such amount for inclusion in the capital cost of the project. The petitioner while praying for consideration of said expenses has stated that the inclusion of such expenses does not suggest any increase in the Pre-operative expenses as averred by the respondent, KSEBL.

16. We have examined the matter. It is observed from the submissions dated 11.2.2013 of the petitioner in IA No. 26/2013 that out of the estimated Excise duty of ₹163.00 crore, an amount of ₹67.59 crores on the COD of Unit-I and ₹50.30 crores on the COD of Unit-II had been capitalized. It had also submitted that the balance amount of ₹45.11 crore was expected to be capitalized after COD of Unit-II. It is therefore evident that the petitioner had capitalized the net amount of ₹117.89 crore (67.59 + 50.30) up to the COD of Unit-II/station after adjustment of ₹36.29 crore refunded by DGFT to the petitioner. Therefore, the deduction of ₹36.29 crore in order dated 19.11.2014 has led to double deduction of the said refund amount. In view of this, the prayer of the petitioner is allowed and the refund Excise duty amount of ₹36.29 crore is considered in the capital



cost of the generating station. We however make it clear that the petitioner shall approach the Commission with full details along with Auditor's certificate after the final decision of the Hon'ble Supreme Court on the issue of refund of Excise duty.

Interest During Construction

17. Interest During Construction (IDC) claimed by the petitioner as on COD of both the Units of the generating station as per Form-5b is as under:

(₹ in lakh)	
1.9.2011 (COD of Unit-I)	28016.00
24.7.2012 (COD of Unit-II)	24424.00
Total	52440.00

18. The petitioner has availed loan for the project from a Consortium of 17 bankers with SBI ("the Bank") as the lead Banker. The petitioner has submitted the loan agreements and bank documents providing the loan details such as (i) the date-wise drawls, (ii) the repayments made along with the rate of interest with reset thereof. Based on this, the loan position arrived as on the COD of both the Units are as under:

(₹ in lakh)			
	Loan position as on	Gross loan	Net Loan
COD of Unit-I	1.9.2011	269541.00	263366.41
COD of Unit-II	24.7.2012	311500.00	289378.41

19. The petitioner vide affidavit dated 5.2.2016 has submitted the letters from the bank intimating the reset of the rate of interest. It is noticed that the rate of interest applied by the petitioner for calculation of IDC are on a higher side and does not match with the rates furnished by the bank in the said letters. The rates of interest as furnished by the bank vis-à-vis those considered by the petitioner are as under:

	Rate considered by the petitioner (%)	Rate furnished by the bank (%)	Reference to the date of Bank letters
3.3.2008 to 30.9.2008	10.25	10.75	26.12.2007
1.10.2008 to 31.3.2009	11.25	10.25	29.4.2009
1.4.2009 to 28.2.2010	10.25	10.25	
1.3.2010 to 31.3.2010	10.78	10.25 (upto 2.3.2010)	
1.4.2010 to 28.2.2011	10.75	9.75 (upto 2.3.2011)	8.3.2010
1.3.2011 to 31.3.2011	11.92	11.00	17.3.2011
1.4.2011 to 2.3.2012	12.00	11.00	
3.3.2012 to 31.3.2012	13.64	12.75	10.3.2012
1.4.2012 to 23.7.2012	13.75	12.75	



20. It is observed that the Common Loan Agreement (CLA) dated 4.2.2008 provides for charging of penal interest in case of non-compliance of the Securitisation clause. Clause 2.6 (iii) of the said agreement reads as follows:

“If security as stipulated in Article 3.1 A is not created and perfected within 180 (One hundred Eighty) days from the date of initial disbursement, the loan shall carry an additional interest at the rate of 1% (one per cent) per annum over and above the Applicable Interest rate from the first day of the 7th month from the date of initial Disbursement till the security is created and perfected.....”

21. It is noticed that the Bank vide letter dated 6.11.2008 had communicated to the petitioner that the extension of time for creation of security was subject to the following condition:

“3. (i) payment of an additional interest of 1% p.a. w.e.f. 3.9.08 till creation and perfection of security and providing substitution of security of forest land (as above).”

22. It is further noticed that the bank vide its letters dated 29.4.2009, 8.3.2010, 17.3.2011 and 10.3.2012 while intimating the reset of rate of interest has also informed that *“...additional interest of 1% shall be levied for non-creation of mortgage on project land, till further instruction from our side in this regard.”*

23. Based on the CLA dated 4.2.2008 and the communications of the Bank as mentioned above, it is evident that the petitioner has paid additional interest to the bank for non-compliance of the terms regarding Securitisation. In this background, we do not find it prudent to allow the rates claimed by the petitioner for calculation of IDC, which include the penal interest charged by the bank for non-compliance of claim of CLA by the petitioner as stated above. Hence, IDC has been allowed by applying the rate of interest as stipulated by the bank from time to time.

Time overrun

24. As decided by the Commission in order dated 19.1.2014 in Petition No. 274/2010, the time overrun of 2.3 months for Unit-I and 3.3 months for Unit-II had not been condoned on the ground that the delay is for reasons attributable to the petitioner. Accordingly, the Commission had disallowed IDC for the said period. In line with the said decision of the Commission, IDC has been restricted to the time overrun allowed and has been capitalised accordingly. The IDC calculated as on COD of both the Units has been allocated to the respective units in the same proportion as



done by the petitioner. Accordingly, the IDC allowed as on the COD of the Units are summarised under:

(₹ in lakh)	
1.9.2011 (COD of Unit-I)	26886.57
24.7.2012 (COD of Unit-II)	23447.12
Total	50333.69

Un-discharged Liabilities

25. The details of un-discharged liabilities as per Form 9A furnished by the petitioner as on the COD of both the Units is as under:

(₹ in lakh)	
1.9.2011	24.7.2012
0.00	35921.33

26. The petitioner was directed vide ROP of the hearing dated 12.1.2016, to furnish the Statement of un-discharged liabilities (asset-wise and party-wise) as on the COD of the units and the respective year along with the reconciliation thereof with the balance sheet. In response, the petitioner vide affidavit dated 5.2.2016, has submitted a statement showing "*un-discharged liabilities as on COD and payment released till 2013-14*". The petitioner has also submitted Auditor's certificate showing un-discharged liabilities as on the COD of the Units and the payment released till 2013-14 as detailed under:

(₹ in lakh)		
COD of Unit-II	Payments released in 2012-13	Payments released in 2013-14
35921.00	11165.00	19776.00

27. The petitioner has further submitted that the balance retention money of ₹49.80 crore as on 31.3.2014 has been included under 'Other Current Liabilities' in the balance sheet of the Petitioner Company as on 31.3.2014.

28. It is observed that the petitioner in Petition No. 274/GT/2010 had submitted that "*the un-discharged liabilities (retention money of ₹359.21 crore) relates to Unit-II only, therefore, the same has been considered at the COD (24.7.2012) of Unit-II only*". Accordingly, the un-discharged liability of ₹35921.00 lakh is considered for the purpose of tariff. However, it is noticed that the



capital cost claimed by the petitioner is on cash basis, i.e. after deduction of the un-discharged liabilities from the gross block. Hence, no further adjustment of un-discharged liabilities has been made.

Liquidated damages

29. The Commission in its order dated 19.11.2014 in Petition No. 274/2010, had observed that the completion cost of ₹550011 lakh considered by the petitioner is without the LD amount, which according to the submission of the petitioner was expected to be ₹16000 lakh. The Commission in the said order had further observed that *“as the same is yet to be settled, the said amount has not been considered. However, the same would be considered for adjustment in capital cost at the time of truing up, based on the final settlement made by the petitioner.”* However, in the instant petition, it is observed that the petitioner has failed to furnish any details with respect to the final settlement of the LD amount. As the same needs to be taken care of, it is hereby decided to deduct ₹16000 lakh of expected LD amount out of the tariff computation, till the time, the petitioner furnishes details of LD settlement.

Additional Capital Expenditure

30. Regulation 9 (1) of the 2009 Tariff Regulations, as amended from time to time, provides as under:

*“9. **Additional Capitalisation.**(1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

(i) Un-discharged liabilities;

(ii) Works deferred for execution;

(iii) Procurement of initial capital spares within the original scope of work, subject to the provisions of regulation 8;

(iii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and

(v) Change in law:

Provided that the details of works included in the original scope of work along with estimates of expenditure, un-discharged liabilities and the works deferred for execution shall be submitted along with the application for determination of tariff.



31. The Commission vide order dated 19.11.2014 in petition no. 274/GT/2010 had allowed actual/projected additional capital expenditure for the generating station for the period from 1.9.2011 to 31.3.2014 as summarized under:

	(₹ in lakh)			
	2011-12	2012-13		2013-14
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	
Additional capitalization claimed	0.00	0.00	23819.00	117545.00
Add: Liability discharged (as per Balance sheet)	0.00	0.00	12020.00	0.00
Less: Liability discharged (as claimed)	0.00	0.00	18200.00	0.00
Additional Capitalization allowed	0.00	0.00	17639.00	117545.00

32. The petitioner has claimed additional capital expenditure for the period 2012-13 and 2013-14 in accordance with the provisions of Regulation 9(1) of the 2009 Tariff Regulations. The details of the additional capital expenditure claimed by the petitioner are as under:

		(₹ in lakh)					
		2011-12		2012-13		2013-14	
		Unit I	Unit II	Unit I	Unit II	Unit I	Unit II
1	Building & Civil engineering works character, not mentioned above. Roads, leased land	-	-	398.00	2989.00	381.00	2245.00
2	Transformers, kiosk sub-station equipment & other fixed apparatus (including plant foundations), having a rating of 100 kilo volt amperes and over & (ii) Others	-	-	0.00	(-) 669.00	0.00	384.00
3	Batteries	-	-	0.00	0.00	0.00	1.00
4	Plant and Machinery in Generating Stations	-	--	169.00	15303.00	1775.00	26085.00
5	Switchgear, including cable connections	-	-	0.00	4.00	0.00	(-)68.00
6	Air conditioning plants: (i) Static	-	-	0.00	(-) 1.00	0.00	39.00
7	Other Assets - Unclassified	-	-	1.00	(-) 250.00	0.00	890.00
8	Office Furniture, Furnishings & Office Equipment	-	-	0.00	(-) 27.00	0.00	116.00
9	Communication equipment (ii) Telephone lines and telephones	-	-	0.00	1.00	0.00	3.00
10	Self-Propelled Vehicles	-	-	0.00	14.00	0.00	23.00
11	IT Equipment	-	-	0.00	1.00	1.00	46.00
Sub-total				568.00	17365.00	2156.00	29764.00
Total		0.00		17933.00		31920	

33. The cut-off date of the generating station is 31.3.2015. The petitioner has claimed total actual additional capital expenditure of ₹49853.00 lakh (₹17933.00 lakh in 2012-13 and ₹31920.00 lakh in



2013-14) as against the projected additional capital expenditure of ₹135184 lakh (₹17639.00 lakh in 2012-13 and ₹117545.00 lakh in 2013-14) allowed by the Commission in order dated 19.11.2014 in Petition No 274/2010. The petitioner has submitted that the additional capital expenditure claimed in the petition is in respect of works which are within the original scope of work and is within the cut-off date. It has further submitted that the balance capitalisation, out of the projected capitalisation of ₹117545.00 lakh for 2013-14 in order dated 19.11.2014, has been re-phased by the petitioner during the next tariff period (2014-19). It is observed that out of the total additional capital expenditure of ₹17933.00 lakh and ₹31920.00 lakh claimed during the years 2012-13 and 2013-14, the petitioner has discharged liabilities amounting to ₹11165.00 lakh in 2012-13 and ₹19776.00 lakh in 2013-14. The balance amount has been claimed towards additional capitalisation in respect of assets which are within the original scope of work and within the cut-off date of the generating station.

Reconciliation of additional capital expenditure claimed for the years 2012-13 and 2013-14 with the books of accounts

34. The Commission vide ROP of the hearing dated 12.1.2016 had directed the petitioner to furnish the duly reconciled station-wise annual accounts for the years 2012-13 and 2013-14. In response, the petitioner vide affidavit dated 5.2.2016 has furnished the 'Statement of closing balance of gross value of fixed assets of station-wise and the Company as a whole as on 31.3.2013 and as on 31.3.2014 as per Audited accounts and the same is summarized as under:

Capital Cost	(₹ in crore)				Total
	2011-12	2012-13		2013-14	
	1.9.2011	24.7.2012 to	31.3.2013	31.3.2014	
	COD of Unit-I	COD of Unit-II	Additions	Additions	
GFA additions	2474.87	1698.70	67.69	121.44	4362.70
(-) Liabilities/ Liabilities Discharged	0.00	(-) 359.21	111.65	197.76	
Cash Expenses towards Land	0.00	55.07	0.00	0.00	
GFA (Cash Basis)	2474.87	1394.56	179.34	319.20	4367.97
Cumulative GFA (Cash Basis)-(i)	2474.87	3869.43	4048.77	4367.97	4367.97
Certificate	2474.87	3894.00	4073.38	4388.87	
Certificate for Land	0.00	55.07	55.07	55.07	
Total Certified GFA (Cash Basis)-(ii)	2474.87	3949.07	4128.45	4443.94	4443.94



Capital Cost	2011-12	2012-13		2013-14	Total
	1.9.2011	24.7.2012 to	31.3.2013	31.3.2014	
	COD of Unit-I	COD of Unit-II	Additions	Additions	
Variance (i)-(ii)	0.00	(-) 79.64	(-) 79.68	(-) 75.97	(-) 75.97

35. It is evident from the above table that there is mismatch of ₹75.97 crore in the gross block and the auditor certified accounts. The petitioner has submitted that the difference of ₹75.97 crore in the capital cost as per actuals and as certified by the Auditor, is on the account of difference in IDC as approved by the Commission and as capitalized and also due to depreciation of minor assets. As directed by the Commission vide ROP of the hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has furnished the statement showing the reconciliation of the cumulative Grossed Fixed Assets as per books and certified Grossed Fixed Assets claimed for tariff as on COD of both the Units, and as on 31.3.2013 and 31.3.2014. The petitioner has further clarified that the difference in the GFA positions is mainly due to the fact that the GFA as per books includes actually booked IDC amounting to ₹63067.00 lakh whereas, the certified gross block includes the IDC allowed by the Commission for ₹52440.00 lakh. Based on the above discussions, the additional capital expenditure for ₹17933.00 lakh in 2012-13 and ₹31920.00 lakh in 2013-14 as claimed by the petitioner is allowed in respect of the generating station.

Capital Cost for 2011-14

36. Accordingly, the capital cost allowed for the period from 1.9.2011 to 31.3.2014 is as under:

	(₹ in lakh)			
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
1. Capital cost claimed	246444.00	-	384744.00	-
a. Less: IDC claimed	28016.00	-	52440.00	-
b. Add: IDC allowed	26886.57	-	50333.69	-
c. Less: Deduction on account of LD amount to be retained	16000.00	-	16000.00	-
2. Opening Capital cost (1-a+b-c)	229314.57	229314.57	366637.69	384570.69
a. Add: Additional capitalisation allowed	0.00	0.00	6768.00	12144.00
b. Add: Discharge of liabilities allowed	0.00	0.00	11165.00	19776.00
c. Total add-cap allowed(a+b)	0.00	0.00	17,933.00	31,920.00
3. Closing Capital Cost(2+c)	229314.57	229314.57	384570.69	416490.69

Debt Equity Ratio



37. Regulation 12 of the 2009 Tariff Regulations provides that:

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

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

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation- The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

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

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

38. The petitioner has claimed debt equity ratio of 70:30 vide Form 6 of the petition as under:

(₹ in lakh)		
	Amount	%
Debt	269320.32	70%
Equity	115423.00	30%
Total	384743.32	100%

39. The debt equity ratio on the COD of the respective units is derived based on the total capital expenditure on cash basis incurred by the petitioner. The equity amount as per the balance sheet has been considered as fixed and balancing amount as debt. In absence of the balance sheets as on the COD, the balance sheet as on 30.9.2011 and 30.9.2012, (i.e. the quarter end balance sheet of the CODs) have been referred. Accordingly, debt-equity position has been arrived at as under:

(₹ in lakh)			
Sr. No.	Expenditure as per Balance Sheet	30.9.2011	30.9.2012
1	Gross Block + CWIP+ Advances+ IEDC	427279.34	446935.08
2	Total Un-discharged liabilities	29933.396	41853.569
3	Capital expenditure on cash basis (1-2)	397345.94	405081.51
4	Equity (Share capital)	133491.77	133491.77
5	Debt (balancing amount)	263854.17	271589.74
6	Equity% (4/3)	33.60%	32.95%
7	Debt% (5/3)	66.40%	67.05%



40. It is noticed that the equity actually deployed on both the dates is more than 30%. Accordingly, the debt equity ratio of 70:30 has been considered as per regulations.

Return on Equity

41. Regulation 15 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides that:

“(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% to 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 charges 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 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 year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

42. It is observed from the annual reports of the petitioner company that no tax has been paid for the financial years 2011-12 and 2012-13. Accordingly, Return on Equity for the years 2011-12 and 2012-13 has not been grossed up with the MAT rate (as done by the petitioner) as no tax has been paid against the same. For the year 2013-14, MAT rate for the respective year has been considered for grossing up. Accordingly, the Return on Equity has been computed as under:



	(₹lakh)			
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
Gross Notional Equity	68794.37	68794.37	109991.31	115371.21
Addition due to Additional Capitalisation	0.00	0.00	5379.90	9576.00
Closing Equity	68794.37	68794.37	115371.21	124947.21
Average Equity	68794.37	68794.37	112681.26	120159.21
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%
Tax rate for the year	0.00%	0.00%	0.00%	20.96%
Rate of Return on Equity (Pre Tax)	15.50%	15.50%	15.50%	19.61%
Return on Equity (Pre Tax) - (pro rata)	6205.59	3330.40	12010.59	23563.22

Interest on Loan

43. Regulation 16 of the 2009 Tariff Regulations provides that:

“(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.

44. The petitioner has submitted that it has refinanced the loan and the same has resulted in substantial benefits to the respondents on account of lower interest rates and the benefits of refinancing will be calculated and shared between the beneficiaries and the petitioner in the ratio of 2:1 in terms of Regulation 26 (7), (8) & (9) of the 2009 Tariff Regulations. Accordingly, Interest on loan is worked out as under:

(a) The petitioner has claimed the weighted average rate of interest of 12.24%, 13.73%, 13.47% for the years 2011-12, 2012-13 and 2013-14 respectively.

(b) As stated, the petitioner has been paying additional rate of interest for non-compliance of the term of the loan agreement regarding securitization. It is noticed that for calculation of the weighted average rate of interest, the petitioner has used the rate of interest in the same manner, i.e. including the additional rate for non-compliance. Accordingly, the weighted average rate of interest has been re-worked, considering the rate of interest mentioned in the letters of the bank, excluding the additional rate charged.

(c) The repayment for the year has been considered equal to the depreciation allowed for that year.

(d) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

45. Accordingly, Interest on loan is computed as under:

	(₹ in lakh)			
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
Gross Notional Loan	160520.20	160520.20	256646.38	269199.48
Cumulative Repayment of loan upto previous year	0.00	6927.41	10645.19	24141.98
Net Opening Loan	160520.20	153592.79	246001.19	245057.51
Addition due to Additional Capitalisation	0.00	0.00	12553.10	22344.00
Repayment of Loan during the period	6927.41	3717.79	13496.78	20929.30
Net Closing loan	153592.79	149875.00	245057.51	246472.21
Average Loan	157056.49	151733.89	245529.35	245764.86
Weighted Average Rate of Interest on loan	11.67%	12.69%	12.53%	12.92%
Interest on loan (pro-rata)	10662.50	6013.20	21162.83	31753.30

Depreciation

46. Regulation 17 of the 2009 Tariff Regulations provides that:

“(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 including [Advance against Depreciation] as admitted by the Commission upto 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.”

47. In terms of the above regulations, depreciation has been calculated as under:

	(₹ in lakh)			
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
Opening Gross Block	229314.57	229314.57	366637.69	384570.69
Addition due to Projected Additional Capitalisation	0.00	0.00	17933.00	31920.00
Closing Gross Block	229314.57	229314.57	384570.69	416490.69
Average Gross Block	229314.57	229314.57	375604.19	400530.69
Value of freehold Land included in Gross Block	-	-	-	-
Rate of Depreciation	5.19%	5.19%	5.23%	5.23%
Depreciable value (90%)	206383.11	206383.11	338043.77	360477.62
Remaining Depreciable Value	206383.11	199455.70	327398.58	336335.64
Depreciation (Pro-rata)	6927.41	3717.79	13496.78	20929.30

O & M Expenses

48. The O & M expenses allowed in order dated 19.11.2014 in Petition No. 247/2010 has been considered as under:

(₹ in lakh)			
1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
4439.39	2518.62	11090.76	17052.00



Additional O&M for Ash disposal expenses

49. The Commission vide order dated 19.11.2014 in Petition 274/2010 had allowed Additional O&M for Ash Disposal Expenses as under:

“78. We have examined the submissions of the petitioner. Considering the fact that the capacity of ash pond is limited and require frequent disposal as per the statutory provision of the MOEF and since the normative O&M allowed under the 2009 Tariff Regulations does not include such expenses, we are inclined to consider the claim of the petitioner on this count. It is also observed that the Commission in respect of the generating stations of DVC had approved ash evacuation expenses as additional O&M vide order dated 8.5.2013 in Petition No. 272/2010 on similar grounds. In view of this, the Ash disposal expenses as claimed by the petitioner have been allowed as additional O&M expenses. It has been observed from the balance sheet furnished by the petitioner vide affidavit dated 16.8.2013 that the petitioner has earned revenue amounting to ₹11.03 lakh and ₹49.48 lakh from the sale of ash for the years 2011-12 and 2012-13 respectively. Therefore, the revenue earned from the sale of Ash shall be adjusted from the additional O&M expenses allowed as above. However, we direct that the ash disposal expenses allowed would not be considered for computation of Maintenance Spares, O & M Expenses and Receivables in the calculation of Interest on Working Capital.”

50. Thus, the Commission while approving the additional O&M for Ash disposal expenses of ₹1366.00 lakh in 2012-13 and ₹4100.00 lakh in 2013-14, had directed in the said order that:

- (a) *The revenue earned from the sale of Ash shall be adjusted from the additional O&M expenses allowed;*
- (b) *The ash disposal expenses allowed would not be considered for computation of Maintenance Spares, O & M Expenses and Receivables in the calculation of Interest on Working Capital.*

51. The petitioner in the petition has submitted the actual Ash disposal expenses incurred as under:

		2011-12	2012-13	2013-14
Ash Disposal Expenses		-	10.00	43.26
Reimbursement of Fees of NEERI	₹ in crore	-	-	0.34
Ratio of Long-term Sales to Total Sales	₹ incrore	-	91%	79%
Ash Disposal Expenses pertaining to LT sales	%	-	9.11	34.49
Less: Revenue earned due to Sale of Ash	₹ incrore	0.11	0.49	0.73
Total Ash Disposal Expenses apportioned to regulated capacity	₹ incrore	(-) 0.11	8.61	33.76

52. We have examined the submissions. The petitioner has incurred actual ash disposal expenses of ₹10.00 crore in 2012-13 and ₹43.26 crore in 2013-14 as total expenditure due to gross generation in the units pertaining to both Long-term ("LT") and Short-term ("ST") sales. Since, the entire installed capacity of the generating station was not tied-up with Long term beneficiaries for the period 2011-14, the Petitioner has taken initiative during the said period to sell the portion of the



unallocated capacity under Short-Term to various customers. Hence, the Petitioner has apportioned the ash disposal expenses based on the actual LT-ST sales ratio during each year of the period from 2011-14.

53. It is noticed that the reimbursement of fees to NEERIs on account of order dated 13.3.2014 passed by the Hon'ble High Court of Jharkhand in Writ Petition (Public Interest Litigation) No. 2663 of 2011 wherein, the Court, in order to assess the impact on Environment, Air and Water, had directed the Jharkhand State Pollution Control Board (JSPCB) to engage National Environmental Engineering Research Institute (NEERI), Nagpur, for ascertaining the quality of Fly Ash discharged by the petitioner for mine stowing. In terms of this, the JSPCB by virtue of the powers conferred under section 30(3) of the Water (Prevention and Control of Pollution) Act, 1974 had engaged NEERI for carrying out the said study and has claimed expenses of ₹34.00 lakh for the same. Also, in terms of the direction of the Commission in order dated 19.11.2014, the revenue earned from the sale of Ash during the period has been reduced from the total Ash disposal expenses for the relevant period. Accordingly, the actual Ash disposal expenses of (-)11.00 lakh in 2011-12, ₹861.00 lakh in 2012-13 and ₹3376.00 lakh in 2013-14 as claimed by the petitioner is allowed as additional O&M expenses. However, the same has not been considered for computation of Maintenance Spares, O & M Expenses and Receivables in the calculation of Interest on Working Capital.

Interest on Working Capital

54. Regulation 18(1)(a) of the 2009 Tariff Regulations provides that the working capital for coal based generating stations shall cover:

(i) Cost of coal for 1.5 months for pit-head generating stations and two months for non-pithead generating stations, for generation corresponding to the normative annual plant availability factor;

(ii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.

(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor; and



(v) O&M expenses for one month.

55. Clause (3) of Regulation 18 of the 2009 Tariff Regulations as amended on 21.6.2011 provides as under:

"Rate of interest on working capital shall be on normative basis and shall be considered as follows:

(i) SBI short-term Prime Lending Rate as on 01.04.2009 or on 1st April of the year in which the generating station or unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the unit or station whose date of commercial operation falls on or before 30.06.2010.

(ii) SBI Base Rate plus 350 basis points as on 01.07.2010 or as on 1st April of the year in which the generating station or a unit thereof or the transmission system, as the case may be, is declared under commercial operation, whichever is later, for the units or station whose date of commercial operation lies between the period 01.07.2010 to 31.03.2014.

Provided that in cases where tariff has already been determined on the date of issue of this notification, the above provisions shall be given effect to at the time of truing up."

Fuel Components in working capital

56. The fuel component in the working capital as considered in order dated 19.11.2014 is allowed as under:

(₹ in lakh)

	2011-12	2012-13		2013-14
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	
Value of 2 months Coal Stock	7221.33	3864.94	13963.88	20306.05
Value of 2 months Oil Stock (LDO)	202.23	108.24	440.19	640.12

Maintenance Spares in working capital

57. Maintenance spares as considered in order dated 19.11.2014 is allowed as under:

(₹ in lakh)

2011-12	2012-13	2013-14
887.88	2721.88	3410.40

Receivables

58. Receivables have been worked out on the basis of two months of fixed and energy charges (based on primary fuel only) as under:

(₹ in lakh)

	2011-12	2012-13		2013-14
Fixed Charges - 2 months	5327.77	2932.22	11034.18	17637.90
Variable Charges -2 months	7423.56	3973.18	14404.08	20946.17
Total	12751.33	6905.40	25438.26	38584.07



59. O&M expenses for one month considered for working capital in order dated 19.11.2014 is considered as under:

(₹ in lakh)			
2011-12	2012-13		2013-14
369.95	209.88	924.23	1421.00

60. SBI PLR has been considered in the computation of the interest on working capital. Necessary computations in support of calculation of interest on working capital are as under:

(₹ in lakh)				
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
Fuel stock- Cost of coal –2 month	7221.33	3864.94	13963.88	20306.05
O&M expenses – 1 month	369.95	209.88	924.23	1421.00
Cost of secondary fuel oil – 2 month	202.23	108.24	440.19	640.12
Maintenance spares	887.88	503.72	2218.15	3410.40
Receivables Fixed charges -2 months	5327.77	2932.22	11034.18	17637.90
Receivables Variable charges -2 months	7423.56	3973.18	14404.08	20946.17
Total	21432.72	11592.18	42984.71	64361.64
Rate of Interest	11.75%	11.75%	13.50%	13.50%
Interest on Working Capital	2518.35	1362.08	5802.94	8688.82

Cost of Secondary fuel oil

61. Cost of secondary fuel oil as considered in order dated 19.11.2014 is considered as under

(₹ in lakh)			
1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
1213.41	651.21	2641.17	3840.74

Annual Fixed Charges

62. The fixed charges (*pro rata*) allowed for generating station for the period 1.9.2011 to 31.3.2014 is summarized as under:

(₹ in lakh)				
	1.9.2011 to 31.3.2012	1.4.2012 to 23.7.2012	24.7.2012 to 31.3.2013	2013-14
Return on Equity	6205.59	3330.40	12010.59	23563.22
Interest on Loan	10662.50	6013.20	21162.83	31753.30
Depreciation	6927.41	3717.79	13496.78	20929.30
Interest on Working Capital	2518.35	1362.08	5802.94	8688.82
O&M Expenses	4439.39	2518.62	11090.76	17052.00
Cost of secondary fuel oil	1213.41	651.21	2641.17	3840.74
TOTAL	31966.65	17593.29	66205.06	105827.38



63. The difference between the fixed charges recovered by the petitioner and the annual fixed charges determined by this order shall be adjusted in terms of clause (6) of Regulation 6 of the 2009 Tariff Regulations.

Determination of Annual Fixed Charges for the period 2014-19

64. As stated, the petitioner in this petition has also prayed for determination of annual fixed charges of the generating station for the period 2014-19 in accordance with the provisions of the 2014 Tariff Regulations. Accordingly, the annual fixed charges claimed by the petitioner for the period 2014-19 are as under:

	(₹inlakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	23306.00	24512.00	26265.00	28054.00	28748.00
Interest on Loan	30700.00	30313.00	30248.00	29918.00	27648.00
Return on Equity	26626.00	28363.00	30451.00	32500.00	33286.00
Interest on Working Capital	11150.00	11399.00	11634.00	11892.00	12057.00
O & M Expenses	16800.00	17861.00	18984.00	20181.00	21452.00
Total	108581.00	112447.00	117582.00	122545.00	123190.00

65. In response to the directions of the Commission the petitioner has submitted additional information and has served copies of the same on the respondents. The respondents KSEB, TPDDL and WBSEDCL have filed replies in the matter. Also, one objector, Shri T.V.Ranjit Kumar has filed his objections to the petition on 3.2.2016. The petitioner has filed its rejoinder to the said replies/objections. Based on the submissions and the documents available on record, we proceed to determine the tariff of the generating station for the period 2014-19 as stated in the subsequent paragraphs.

Capital Cost

66. 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) xxxx

(c) xxxx

67. The details of the capital cost claimed by the petitioner as on 1.4.2014 in Form-I(I) is as follows:

(₹incrore)					
Unit-I	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	2491.69	2651.59	2793.61	3011.20	3146.21
Add: Addition during the year / period	159.91	142.02	217.59	135.02	2.08
Less: De-capitalization during the year / period	-	-	-	-	-
Less: Reversal during the year /period	-	-	-	-	-
Add: Discharges during the year /period	-	-	-	-	-
Closing Capital Cost	2651.59	2793.61	3011.20	3146.21	3148.29
Unit-II	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	1854.27	2010.01	2142.78	2360.26	2486.88
Add: Addition during the year / period	155.75	132.77	217.49	126.62	3.58
Less: De-capitalisation during the year / period	-	-	-	-	-
Less: Reversal during the year / period	-	-	-	-	-
Add: Discharges during the year / period	-	-	-	-	-
Closing Capital Cost	2010.01	2142.78	2360.26	2486.88	2490.45

68. The Commission in this order has considered the closing capital cost of ₹416490.69 lakh as on 31.3.2014. Accordingly, in terms of the above regulations, the closing capital cost of ₹416490.69 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

69. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted upto 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19.

70. Regulation 14 of the 2014 Tariff Regulations provides as under:

“14. Additional Capitalisation and De-capitalisation: (1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following



counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Un-discharged liabilities recognized to be payable at a future date;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

(v) Change in law or compliance of any existing law:

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

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

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

(ii) Change in law or compliance of any existing law:

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

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

(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 of 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.”

71. The petitioner in Form-9 of the petition has claimed projected additional capital expenditure in terms of Regulation 14 of the 2014 Tariff Regulations as under:

	(₹ in crore)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Building and Civil engineering works	294.55	89.45	35.70	15.72	00
Transformer, Kiosk sub-station equipment	(-) 0.71	16.32	00	00	00
Plant and Machinery	17.67	160.87	394.62	241.91	2.80
Other assets-Unclassified	00	8.15	4.75	4.00	2.10
IT equipment	4.14	00	00	00	0.75
Total	315.65	274.79	435.07	261.63	5.65

72. The petitioner has also furnished the item-wise details of the projected additional capital expenditure claimed (including IDC), which are *within the original scope of work* of the project as under:

	(₹ in crore)				
	Closing GFA				
	2014-15	2015-16	2016-17	2017-18	2018-19
BTG Package - station	(-) 4.16	16.16	-	-	-
Cost of Land & Site	195.05	-	-	-	-
General Civil Works (GCW)	97.93	62.55	-	-	-
Plant Water System (PWS)	2.14	-	-	-	-
Ash Handling System (AHS)	(-) 4.13	7.16	-	-	-



Coal Handling System	(-) 5.02	9.59	21.42	-	-
Railway System Package	-	-	311.00	94.00	-
BOP Electrical	0.45	6.43	-	-	-
Township & Colony	0.57	20.00	30.00	14.42	-
Design, Engineering & project Management	7.87	0.47	5.60	7.66	-
Pre-Operative Expenses	18.36	20.26	8.99	-	-
IT System for Software	4.14	-	-	-	-
Interest During Construction	1.45	-	46.01	16.15	-
Margin for Working Capital	-	-	-	-	-
Ash Conveying Pipeline	-	-	-	112.00	-
RO Plant	-	84.00	-	-	-
Additional Spares	-	19.56	-	-	-
Contingency Reserve	-	-	-	-	-
Less: Interest Income	-	-	-	-	-
Add: Cash Expenses towards Land	(-) 55.07	-	-	-	-
Total	259.58	246.18	423.02	244.23	-

73. The petitioner has furnished the details of the projected additional capital expenditure claimed which are *not within the original scope of work* of the project as under:

(₹ in crore)					
Package	Closing GFA				
	2014-15	2015-16	2016-17	2017-18	2018-19
Building and Civil Engineering works	1.00	6.90	5.70	1.30	0.00
Transformer and sub-station equipment	0.00	8.95	0.00	0.00	0.00
Plant & Machinery	0.00	4.60	1.60	12.10	2.80
Other Assets - Unclassified	0.00	8.15	4.75	4.00	2.10
IT Equipment	0.00	0.00	0.00	0.00	0.75
Total	1.00	28.60	12.05	17.30	5.65

74. The COD of the generating station is 24.7.2012. Hence, in terms of the provisions of the 2009 Tariff Regulations, the cut-off date of the generating station is 31.3.2015. We now examine the claim of the petitioner for additional capital expenditure based on the submissions of the parties and the documents available on record, as stated in the subsequent paragraphs.

2014-15

Projected additional capital expenditure in respect of assets within the original scope of work and up to the cut-off date

75. The petitioner has claimed gross projected additional capital expenditure of ₹32796.00 lakh (₹19505.00 lakh for cost of Land and Site, ₹9793.00 lakh for General Civil Works, ₹214.00 lakh for



Plant Water System, ₹45.00 lakh for BOP Electrical, ₹57.00 lakh for Township and Colony, ₹787.00 lakh for Design Engineering and Project Management, ₹1836.00 lakh for Pre-Operative Expenses, ₹414.00 lakh for IT equipment and ₹145.00 lakh towards IDC, during 2014-15 under Regulation 14(3) (i) (ii) & (iii) of the 2014 Tariff Regulations and the petitioner has not mentioned the specific provision of the regulation under which each item have been claimed. The petitioner has also claimed the de-capitalization of ₹6838.00 lakh (₹416.00 lakh for BTG package-station, ₹413.00 lakh for Ash Handling System, ₹502.00 lakh for Coal Handling System and ₹5507.00 lakh towards Land) during the year 2014-15. The petitioner has submitted that the projected expenditure claimed is in respect of assets which are under the original scope of work of the project and is within the cut-off date. In view of this, the total projected additional capital expenditure of ₹32796.00 lakh along with de-capitalization of ₹6838.00 lakh (Net projected additional capital expenditure of ₹25958.00 lakh) in 2014-15 is allowed under Regulations 14(1)(ii) of the 2014 Tariff Regulations.

Additional capital expenditure for the period 2015-19

76. As stated, the cut-off date of the generating station is 31.3.2015. The petitioner, in the petition has prayed for extension of cut-off date towards the capitalisation of additional expenditure in respect of assets which are under the original scope of work and has submitted as under:

(a) Units I and II have been declared under commercial operation on 1.9.2011 and 24.7.2012 respectively. The Project has been commissioned on 24.7.2012 (COD of Unit II) and therefore, the cut-off date as per 2014 Tariff Regulations works out to 31.3.2015. However, complete capitalization of all the packages within the original scope of work could not be completed on account of factors which are beyond the control of the Petitioner. The reasons for the delay are as under:

(b) MPL had envisaged Railway System Package to facilitate the transportation of Coal to the Project. However, the completion of the Railways Project is delayed on account of the following:

(i) The delay and increase in the scope of work for Railway System Package is due to:

- (a) Re-alignment of the Dedicated Freight Corridor: and
- (b) Revision in Railway norm of elevation from 1:400 to 1:1200.

(ii) Rehabilitation and Resettlement scheme for acquisition of Land required for Railways Infrastructure which has taken longer time than anticipated due to irregularities in payments made



by the DLAO.

(c) Due to the extension plan of the freight corridor, being implemented by Dedicated Freight Corridor Corporation of India limited (DFCCIL), the scope of work for the petitioner increased as the route map of said extension was interfering with the MPL's Railway Infrastructures layout. Further, the decision of the Ministry of Railways to construct the DRC resulted in change in the track elevation for MPL in executing the Railway System Package i.e. from 1:1200 to 1:400. Further, the No Objection Certificate from DFCCIL could not be obtained without fulfillment of the conditions of DFCCIL. The Eastern Railways, in turn, was not ready to grant land licensing without the NOC from DFCCIL and therefore such conditions were binding on the petitioner. The aforesaid change in norm amounts to 'Change in Law' in terms of Regulation 2 (9) of the 2014 Tariff Regulations. Accordingly, the petitioner is praying for consequential relief under Regulation 14(2) of the 2014 Tariff Regulations.

(d) The delay in implementing the R&R Scheme for the Railways Package is on account of the following:

There was rampant falsification of documents at District Land Acquisition Office (DLAO) in identification of bonafide beneficiaries of private land acquired by the Petitioner for building the Railway infrastructure and the distribution of payment for such land by the Government of Jharkhand (GoJ) were also having several anomalies. Due to non-receipt of legitimate payment of land and other benefits due to them, the bonafide beneficiaries have not yet allowed the petitioner to carry out any construction activity on the acquired land. However, the process has streamlined only after the Petitioner brought this matter to the notice of the highest authority at GoJ and the DLAO has started identifying bonafide beneficiaries and initiated the process of redistribution of payment to actual beneficiaries after recovery of the wrong payments. However, till such action has been taken by the administration authorities, the R&R Scheme for the Railways Package could not be finalized and the work could not be started.

(e) The Petitioner had envisaged the construction of Township and Colony for the O&M personnel in the original scope of work of the project. As the project is located in the DVC Command area, the land required for the construction of the same was to be handed over by DVC. However, DVC was able to provide only 14,000 m² of land which was inadequate for building accommodation for all the employees. Subsequently, the transfer of land by DVC has been restricted by the directive dated 6.4.2011 issued by the Ministry of Urban Development, Government of India. The allocation of land and grant of NoC by DVC is a statutory function and therefore despite the fact that DVC is a JV partner in the project, the grant of the NoC could not be expedited without following the statutory procedures. Therefore the petitioner had to approach the District Administration for allotment of requisite land. However, the land being identified by the District Administration for the construction of Township Phase II is owned by the Tribal Community and GoJ. Accordingly, MPL again persuaded the District Administration for obtaining necessary clearance for acquisition of land from the Tribal community and GoJ. All these processes led to delay in execution of the Project.

(f) The Petitioner has prayed for additional capitalization to construct the Ash Conveying Pipeline in accordance with the directives issued by the Ministry of Environment & Forests (MoEF) vide Notification dated 3.11.2009. The said notification mandates that MPL must ensure 100% utilization of Fly Ash through off-take to Cement companies and disposal of 100% Bottom Ash to abandoned coal mines of the coal companies in a phased progressive manner. However, the construction of the Ash Conveying Pipelines requires the Petitioner to undertake the complex procedure of land acquisition for laying the 15.5 Km pipeline which shall result in additional cost.



Therefore, the Petitioner is making attempts to construct the major portion of the Ash Conveying Pipeline along the embankment of the railway corridor which is expected to be commissioned by the end of 2017-18 along with the Railways Project. Accordingly, the implementation of the same will not be complete by the cut-off date. In view of the aforesaid, the Petitioner is praying before this Commission to grant extension of the cut-off date for the Project beyond 31.3.2015 by 3 years upto 31.3.2018 due to factors beyond the reasonable control of the Petitioner.

77. Accordingly, the petitioner has prayed that the Commission may grant extension of cut-off date till 31.3.2018 in exercise of the power under Regulation 54 of the 2014 Tariff Regulations 2014.

78. The Commission vide ROP of hearing dated 12.1.2016 had directed the petitioner to furnish the following information:

Period 2009-14

"i) The extension of cut-off date on account of delay in execution of works. The year in which these works are expected to be capitalized beyond the cut-off date and above which provision of Regulation 14, these expenditures have been claimed as under:

- a) Railway system*
- b) Rehabilitation and resettlement scheme for acquisition of Land*
- c) Construction of township and colony and the ash conveying pipeline.*

ii) List of deferred works as on COD of the generating station and balance of payments made under original scope of work.

iii) The reconciliation statement of the actual additional capital expenditure incurred during 2009-14 with the books of accounts duly certified by auditor for trueing up of the additional capital expenditure.

iv) Certificate to the effect that all the assets covered under gross block as on 24.7.2012, 31.3.2013 & 31.3.2014 are put to use for generation of power. If any asset is taken out from gross block then mention the date of taking out such asset from useful service along with depreciation recovered till the period the assets was taken out of the gross block.

Period 2014-19

i) Asset wise breakup details of "Plant and Machinery", "Building & civil works" and "Other unclassified assets" along with the relevant provisions of the regulations under which each asset/work has been claimed in Form-9A and the reasons as to how the said items are also related to the reasons furnished for extension of cut-off date;

(i) Details of initial spares capitalized as on COD of the generating station and as on cut-off date.

xxx

iv) Reasons for deferred works like Plant & Machinery, Building & Civil works and other unclassified assets beyond the cut-off date i.e. 31.3.2015 and reasons as to why the cut-off date for completion of these works is required to be extended beyond 31.3.2015. Also clarify whether these works were ordered before COD of the generating station and if so, the date of placement of the said works orders, if any"



79. The petitioner vide affidavit dated 5.2.2016 has submitted that the COD of the Project is 24.7.2012 and therefore, the cut-off date for the project as per the 2014 Tariff Regulations works out to 31.3.2015 for completion/capitalization of Projects under the original scope of work. However, it has submitted that due to the delay in execution of the Projects, the extension of the cut-off date has been sought till 31.3.2018. The details of project packages for which extension of cut-off date has been sought for by the petitioner are as under:

Sl. No	Name of Project Package	Regulation	Expected date of capitalization
1.	Railways System	14 (1) (v)	31.3.2018
2.	Township & Colony	14 (1) (ii)	31.3.2018
3.	General Civil Works (works related to Ash Pond)	14 (1) (ii)	31.3.2016
4.	Reverse Osmosis Plant	14 (1) (iv)	30.6.2015 (revised to 31.3.2016)
5.	Ash Conveying Pipeline	14 (1) (iv)	31.3.2018

80. We have examined the matter. Since the project has achieved commercial operation on 24.7.2012, the cut-off date will be governed by Regulation 3(11) of the 2009 Tariff Regulations and not Regulation 3(13) of the 2014 Tariff Regulations as stated by the petitioner. Be that as it may, since the prayer of the petitioner for extension of cut-off date from 31.3.2015 to 31.3.2018, the same is to be examined on prudence check based on the justification furnished by the petitioner. Accordingly, we examine the packages for which extension of cut-off date has been sought for by the petitioner along with the justification.

Railway System Package

81. The petitioner has claimed projected additional capital expenditure of ₹31100.00 lakh in 2016-17 and ₹9400.00 lakh in 2017-18 for 'Railway System Package' and has prayed for extension of cut-off date till 31.3.2018. The petitioner in Form-9 of petition has claimed these expenditure under Regulation 14(i)(ii)(iii) of the 2014 Tariff Regulations. However, in response to the Commission's directions vide ROP of the hearing dated 22.1.2016, the petitioner has claimed the expenditure under Regulation as 14 (1) (v) of the 2014 Tariff Regulations.



82. In response to the directions of the Commission vide ROP of the hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has submitted the justification as under:

"It is submitted that the Petitioner had commissioned Unit 1 on 1.9.2011 and Unit 2 on 24.7.2012 and has proposed for extension of the cut-off date for capitalization of balance works under original scope of the Project till 31.3.2018. The justification for seeking such extension of the cut-off date has been elaborated in the following paragraphs:

It is humbly submitted that the Petitioner has in the best interest of the Beneficiaries took efforts to construct the Railways Infrastructure for facilitating the receipt of Coal through railway rakes from the Coal Mines from the inception of the Project. The proposed Railways Project was included in the Original Scope of Work and the contract for execution of the job had already been awarded to competent contractor in 2010. However, the Petitioner had faced various constraints pertaining to Land and Railway related matters which had delayed the Project beyond the schedule date of completion. Such constraints were beyond the control of the Petitioner even after all the due procedures have been diligently followed under the supervision of the Government Authorities. Therefore, the Petitioner through the instant submission approaches this Commission to consider the approval of the proposed revised cut-off date of the Project.

Thereafter, the Petitioner had after rounds of discussion and negotiations with L&T regarding the scope, specifications, design, procurement, engineering etc. awarded the contract for execution of the Railways Project to L&T through the agreement dated 31.05.2010. The Contract Agreement for execution of the Railways Project with L&T is annexed hereto and marked as Annexure 2.

The entire Railways Project was scheduled to be completed in four stages considering the date of issuance of the Lol as the commencement subject to smooth handover of requisite Land by MPL. Overall completion schedule of the Railways Project was 24 months from the commencement date of the Project. Hence as per the above Contract, the Railways Project was scheduled to be completed by 31.3.2012. The Railways Project was awarded to L&T and the completion schedule of the Railways Project was agreed upon between MPL and L&T keeping in mind the scheduled commercial operation date of the generating Units. It is therefore evident from the above that the Railways Project was a part of the original scope of work. It is submitted that the proposed cost of the Railways Project at Rs 405 crores included in the capital cost approved by the Board of Directors dated 28.1.2013 and was subsequently submitted before this Commission through IA No. 04/2013 in Petition No. 274 of 2010. Based on the above, the Commission had through the order dated 19.11.2014 approved the Capital Cost of the Project as per the proposed phasing till 2013-14. The above mentioned Board Approval of the Project Cost including the cost of the Railways Project is annexed for the ready reference of the Commission.

It is submitted the MPL Railway Infrastructure connects the Eastern Railways route between Asansol and Dhanbad. It is submitted that in 2009, Ministry of Railways (MoR) had announced their plan to extend the Eastern Dedicated Freight Corridor between Ludhiana-Delhi-Dankuni-Kolkata. The route map of the said extension would have interfered with the MPL Railway Infrastructures lay-out, as the same was connected between the Merry-Go-Round (MGR) Loop and the Grand Chord (GC) Line of Indian Railways. The construction and development of the dedicated freight corridor has been entrusted upon Dedicated Freight Corridor Corporation of India limited (DFCCIL) by the Indian Railways. The issue of interference of the MPL Railways route and the dedicated freight corridor was first raised when MPL approached the Railways Board for finalization of the alignment of the proposed MPL Railway Project with the main line of the Eastern Railways. Due to the extension plan of the Freight Corridor, the scope of work for the Petitioner increased on account of the following:

'Change in the track elevation for MPL in executing the Railway System Package, i.e., from 1:200 to 1:400. Construction of additional retaining wall of length of about a kilometer, via- duct, U through etc.'



Further, the Petitioner also had to agree to pay the cost of additional Land acquisition required to be done by DFCCIL on account of accommodating space to MPL for connecting to the GC Line of Eastern Railways near Thaparnagar Station. However, the No Objection Certificate (NOC) from DFCCIL could not be obtained without fulfillment of the conditions of DFCCIL. Eastern Railways, in turn, was not ready to grant the land licensing without the above NoC from DFCCIL. The above NOC from DFCCIL was essential for the Petitioner in order to get the approval of the Land Licensing to MPL for construction of the Railway Project. Therefore, fulfillment of the conditions proposed by DFCCIL was binding on MPL.

However, after vigorous follow-up with the Eastern Railways till September 2012, DFCCIL inspected the site and the deliverables of MPL and provided their additional requirements through the communication dated 20.10.2012. Such communication is attached hereto and marked as Annexure 6. As per the directions of DFCCIL in the above communication, the Petitioner had to further comply with such requirements. Thereafter, DFCCIL issued the NOC on 21.11.2013. Thereafter, the Petitioner approached Eastern Railways with the NOC accorded by DFCCIL for the Land Licensing which was subsequently approved on 11.04.2014. Land Licensing Agreement is essential pre-requisite to start the work on the Land allocated to MPL for the Railways Project.

It is further submitted that the aforesaid change in norm of track elevation leading to change in scope of the Railways Project amounts to 'Change in Law' in terms of Regulation 2 (9) (d) of the CERC Tariff Regulations 2014. Further, the Petitioner wishes to draw the attention of the Hon'ble Commission to the fact that all the Land related matters like R&R Settlement, Land Licensing etc. cannot be executed without the supervision of the approved authority. MPL has faced multiple challenges in case of Land acquisition which under no circumstances can be considered as within the control of MPL. MPL has diligently followed the processes laid down by the Government authorities and therefore cannot be held responsible for the various incidents like DFCCIL mandates, mismanagement in distribution of payments to Land owners by Government officials which have caused the delay in the execution of the Railways Project. It is humbly submitted that the Petitioner cannot be held responsible for slackness in execution of statutory conducts, the responsibilities of which lies with the Government Authorities. It is humbly submitted that MPL has been able to contain the price terms of the Agreement with L&T within the budget approved by Board of Directors and would be able to complete the Railways Project within the same if the Hon'ble Commission kindly allows for the extension of such cut-off date."

83. The petitioner vide its note of submissions furnished during the hearing on 22.12.2016 has stated that the execution of various Project packages were delayed on account of reasons which are beyond the control of the petitioner and therefore, the capitalization of expenditure on the above schemes could not be achieved within 31.3.2015. Accordingly, the Petitioner has submitted that it has sought for extension of the cut-off date of the Project till 31.3.2018 in view of the constraints faced in the execution of the above Project packages. The petitioner has further submitted that as per present scenario, it may not even be possible to complete some of the Project packages within such proposed cut-off date of 31.3.2018 and hence the Commission may consider the Cut-off date of the Project as 31.3.2019. The petitioner has further stated that considering the present scenario, it may not be possible for the petitioner to complete some of the



Project packages within the above date. Accordingly, the Petitioner has sought liberty to approach this Commission for obtaining approval for capitalisation of the cost of such Project packages as and when the same (excluding the RO Plant which has already been capitalized) are completed.

Submission of the Respondents

WSEDCL

84. The respondent, WSEDCL vide affidavits dated 10.3.2016 and 30.12.2016 has submitted as under:

(a) **Increase in Scope of Work:** Admittedly, Railway System Package (RSP) was part of the original scope of work. The draft DPR for the RSP was approved by the Eastern Railways on 27.2.2008 and accordingly the final DPR for the RSP was submitted by the Petitioner on 31.3.2009. ER notified changes in the scope of RSP work on 6.8.2009. The Petitioner has failed to provide reasons and corroborate the same by way of documentary evidence, as to why despite receiving the approval from ER on draft DPR on 27.2.2008, the Petitioner took almost 1 year to submit the final DPR i.e. on 31.3.2009. It may be noted that even the notification for changes in RSP work only came on 6.8.2009 i.e. after submission of final DPR. Therefore, the changes in scope of RSP work could not have hindered the finalization of DPR, for which the Petitioner has taken unreasonable time of 1 year (without corroborating the same with any documentary evidence). Since there is no explanation and documentary evidence in relation to 1 year, such delay cannot be condoned.

(b) **Revision in Railway Norms:** Due to revision in Railway Norm of elevation from 1:400 to 1:1200 by ER vide its letter dated 17.8.2009, the revised DPR was required to be prepared and was accordingly filed. The Petitioner has neither given any explanation nor produced any documentary evidence to establish as to what manner the revision in gradient norms has delayed the implementation of RFS works. As submitted above, had the Petitioner not delayed in finalization the Original DPR, the DPR would have been timely scrutinized by ER and accordingly timely approval would have been received.

(c) **Delay in Land Acquisition:** It is submitted that three types of lands were proposed to be acquired by the Petitioner for RSP works, namely: (i) Railway Land; (ii) Private Land (acquired through DVC + self + Eastern Coalfield Land); (iii) GM Land. The land licensing for Railwayland was initiated in 2010. Since ER has informed that in case of a defunct railway infrastructure attached to an abandoned coal mine, ownership of the land will rest with Railways, accordingly, the land license for Railwayland would have to be revised to include the Eastern Coalfield land. The Petitioner has claimed that after receiving approval of DPR and ESP in 2010 it had been following it up with ER diligently. However, as per documents on record, the Petitioner has written to ER on 23.8.2010 (1 month later); 6.7.2011 (1 year thereafter), 28.3.2012 (8 months thereafter); 28.9.2012 (6 months thereafter); 9.5.2013 and 14.5.2013 (8 months thereafter). This shows that the Petitioner was not proactive in pursuing the matter with ER.

KSEBL



85. The respondent, KSEBL vide affidavit dated 11.1.2016 has submitted as under:

(i) The re-alignment of the Dedicated Freight Corridor by Ministry of Railways was decided in 2009 and all the representatives jointly decided for expediting the construction activities. It was also decided that Eastern Railway would approve the DPR/Revised plan and permit MPL to take up construction of the siding at the earliest.

(ii) However, the petitioner took 4 years to take up necessary steps for carrying out the revision in railway system package and getting NOC from DFCCIL. Such a huge time delay is not justifiable considering the fact that the gestation period for power plant is 4-5 years.

(iii) The petitioner has not furnished documents to substantiate its contention that NC from DFCCIL was essential for MPL to get approval of DPR, ESP and land licensing for construction of the project.

(iv) In terms of Regulation 12 of the 2014 Tariff Regulations, time and cost overrun on account of land acquisition issues are to be treated as 'controllable factors' and the loss has to be borne by the petitioner itself. Accordingly, the prayer of the petitioner for extension of cut-off date may not be allowed.

Township & Colony

86. The petitioner has claimed projected additional capital expenditure of ₹2000.00 lakh in 2015-16, ₹3000.00 lakh in 2016-17 and ₹1442.00 lakh in 2017-18 for 'Township & Colony'. The petitioner in Form-9 of petition has claimed these expenditure under Regulation 14(i)(ii) of the 2014 Tariff Regulations. However, in response to the Commission's directions vide ROP of the hearing dated 22.1.2016, the petitioner has claimed the expenditure under Regulation as 14 (1) (v) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of the hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has furnished the following justification:

"The Petitioner had commenced work on the Project in 2007 with approximately 150 employees. With the commissioning of the Units, O&M Team was constituted and the employee strength increased to around 280. Initially, during the Project phase, the accommodation was provided to employees by acquiring discreet flats and quarters in Asansol and Dhanbad areas on lease rental basis located around 40-50 km from either side of the Generating Station. However, such an interim arrangement is not possible to sustain the long-term requirement of the Petitioner and hence, the Township Project had been conceived within the Original Scope of Work. While the first phase of the Township has already been completed, Land acquisition for the construction of the second phase of the Township has been a serious hurdle for the Petitioner. It is submitted that since the Project is located within the DVC Command Area, the Petitioner approached DVC to provide the necessary Land for construction of the Township through several communications in various forums. DVC thereafter had agreed to provide 14,000 m² of Land which although was grossly inadequate to fulfill the entire requirement of the Petitioner. Hence, the Township Phase I could be constructed only to accommodate 92 employees due to availability of limited area at the designated location. The Petitioner has planned to construct the second phase of the Township to accommodate the balance 188 employees. Due to unavailability of Land in the adjoining area of the existing Township, the Petitioner made efforts to locate suitable Land in nearby location to facilitate the above purpose. MPL through the Letter dated 25.11.2011 approached DVC for



additional allocation of 30000 m2 of Land in the plot adjacent to the Phase I Township. However, further transfer of Land from DVC was restricted by the Circular No. 93/2011-CDN dated 06.04.2011 of the Ministry of Urban Development, Government of India, wherein Government undertakings like DVC had been directed to seek prior approval of the Cabinet for any transfer/alienation of Land belonging to the Government. A copy of the Circular dated 06.04.2011 has been annexed.

Pursuant to the said Notification, the Petitioner approached the District Administration to acquire Land of approximately 30 acres. However, the Land being identified by the District Administration for the construction of MPL Township Phase II is owned by the Tribal Community and GoJ. Accordingly, the Petitioner again persuaded the District Administration for obtaining the necessary clearance for acquisition of Land from the Tribal Community and GoJ. Further, under the directive of the GoJ, Land papers have been verified and the application has been filed at Dhanbad Court of District Commissioner (DC) for the transfer of the Land. The first among the three hearings to be conducted by DC have been completed. In view of the foregoing, it is evident that the Land acquisition for the MPL Township has been delayed for reasons beyond the control of the Petitioner and is on account of procedural issues and restrictions being imposed on the transfer of land. Therefore the Petitioner has sought for the extension of the cut-off date upto 31.03.2018 for the completion of the Phase II of the Township Project.”

Submission of the Respondents

KSEBL

87. The respondent, KSEBL vide affidavit dated 11.1.2016 has submitted the following:

- (i) The original scope of work was made before 2007. However, the petitioner had not envisaged provision for township for accommodating the employees of MPL even though the plant is located in a difficult geographical terrain.
- (ii) The township project conceived in the original scope of work was for accommodating limited number of employees only and hence there is severe lack of planning by the petitioner in the case of township project.
- (iii) There was lack of planning and proper follow ups on part of the petitioner as evident from the fact that the petitioner approached DVC seeking land for construction of township in 2009. Further, the petitioner had failed to acquire the land within the stipulated time.
- (iv) The second phase of township planned to accommodate the remaining employees of the generating station was not included in the original scope of work. In terms of Regulation 14 of the 2014 Tariff Regulations, only those works could be allowed for additional capitalization within cut-off date and after cut-off date that falls under the original scope of work.
- (v) The capitalization work for first phase of township, though included in the original scope of work, could not be completed due to the delay solely caused by the negligence of the petitioner while the proposal for second phase of township was not at all included in the original scope of work. Accordingly, the claim of the petitioner under this head is not in accordance with the provisions of Regulation 14 and thus liable to be rejected.

WBSEDCL



88. The respondent, WBSEDCL vide affidavits dated 10.3.2016 and 30.12.2016 has submitted as under:

(i) The quantum of land sought by the petitioner from DVC for township construction is not clear from the application.

(ii) The petitioner was granted approval of 14000 m² land for township constructions by DVC vide its letter dated 22.6.2009 and stated that the land was sufficient for accommodating 92 employees against its full strength of 280 people. However, the petitioner vide its application dated 25.11.2011, had approached DVC again seeking additional allocation of 30000 m² of land. The petitioner had failed to provide explanation for the intervening period of two and a half years between the first and the second application even while knowing the fact the first land provided could only accommodate 92 employees out of 280. The delay claimed in additional land allocation on account of time taken in processing its application for allotment by Ministry of Urban Development is attributable to the petitioner itself in view of the long delay in filing the second application. The petitioner would have properly planned its township as per DPR and additional land could have been sought before 6.4.2011 i.e prior to the issuance of circular by Ministry of Urban Development, which would not have resulted in stalling of land acquisition and handing over the proceedings.

(iii) The petitioner being an experienced developer ought to have foreseen the housing/ accommodation and other requirements of the employees while designing the project. Accordingly, the delay due to acquisition of land is solely contributable to the petitioner and any cost overrun arising thereof may be disallowed.

General Civil Work (GCW) Package

89. The petitioner has claimed projected additional capital expenditure of ₹6255.00 lakh in 2015-16 for 'General Civil Work (GCW)' Package. The petitioner in Form-9 of petition has claimed these expenditure under Regulation 14(i)(ii)(iii) of the 2014 Tariff Regulations. However, in response to the Commission's directions vide ROP of the hearing dated 22.1.2016, the petitioner has revised the same and has claimed the expenditure under Regulation 14(1)(v) of the 2014 Tariff Regulations. In response to the Commission's directions vide ROP of hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has furnished the following justification:

"The delay in execution of the works under the General Civil Works Package (GCW) under Original Scope is on account of various reasons beyond the control of the Petitioner which are elaborated below:

"The balance works to be carried out under the GCW Package is mainly on account of the unfinished portion of the boundary wall around the Ash Pond. It is submitted that although the remaining work is related to Ash Pond, the same is included under the 'General Civil Works' owing to the nature of the balance scope of work. The completion of the boundary wall around



the Ash Pond has been delayed on account of Land related issues, the resolution of which has taken much longer time than envisaged earlier.”

It is further submitted that the Petitioner faced difficulty in the execution of the civil works during the floods in West Bengal between 06.09.2009 to 07.09.2009. It may be noted that Maithon Reservoir experienced an unprecedented deluge due to abnormally high rain in the upstream Jharkhand. The release of water by DVC reached a maximum of 300000 Cusec from the Maithon Barrage. The situation was further aggravated due to heavy rainfall. As a result of such unprecedented floods, water levels reached 151.50 meters in the reservoir and damaged the Coffor Dam and the adjoining structures of the plant water intake system which was under construction. The devastation due to the flooding and consequent water-logging took several months to remedy and hampered the progress of the GCW Package. The Weather Situation Report issued by the United Nations Weather Watch Department is annexed hereto and marked as Annexure 11 for the ready reference of the Commission. Further as per the report of Indian Meteorological Department(IMD) the rainfall in Dhanbad district during September 2009 was about 56% higher than September 2008. The District-wise rainfall data for 2004-2010 has been annexed hereto and marked as Annexure 12 for the reference of the Commission.

In addition to the above, the petitioner also faced numerous challenges on account of delay in land handover, delay in obtaining the permission for Hard Rock blasting, strikes and labour unrest leading to an overall delay in the execution of the various civil construction work both at the initial and the mid-phases of the project. Therefore the various works under the GCW Package cannot be completed within the cut-off date and the extension for cut-off date has therefore been sought by the petitioner beyond 31.3.2015 for the completion of such projects.”

Submission of the Respondents

KSEBL

90. The respondent, KSEBL vide affidavit dated 11.1.2016 has objected to the claim of the petitioner and has submitted as under:

(i) The petitioner has not furnished any justification regarding construction of boundary wall being delayed on account of land related issues.

(ii) The statement of the petitioner that flooding and consequent water logging that occurred in 2007 took several months to remedy and hampered the progress of GCW package is devoid of merits as the petitioner had enough time after 2007 to remedy the defect and complete the work within the cut-off date. Accordingly, the claim for capitalisation of GCW package not completed within the cut-off date may not be allowed.

Analysis and Decision

91. The claim of the petitioner for additional capital expenditure in respect of Railway system, General Civil Work and Township & Colony for the period 2015-19 as above, has been examined in the light of the submissions of the petitioner in the original petition, the affidavit dated 5.2.2016, the submission made during the hearing on 22.12.2016 along with the submissions of the respondents. Though the petitioner had prayed for extension of cut-off date upto 31.3.2018, it has, based on the current scenario and the difficulties faced submitted that the said works are expected



to be completed by 31.3.2019 and has prayed for extension of cut-off date till 31.3.2019. Subsequently, the petitioner has submitted that some of the works may not even be completed within the period of 31.3.2019 and has accordingly sought liberty to approach the Commission for approval of the cost of such Project packages as and when the same (except for RO Plant which has already been capitalized) are completed. In view of this submission and considering the fact that capitalisation of projected additional expenditure of these assets/ expenditure before 31.3.2019 is uncertain, the consideration of the prayer of the petitioner for extension of cut-off date of the generating station till 31.3.2019 would not serve any useful purpose. In this background, the prayer of the petitioner for projected capitalisation of the expenditure is not allowed. However, the petitioner is granted liberty to approach the Commission for additional capitalisation based on the actual expenditure incurred for these assets and the same will be considered after due diligence and prudence as per the regulation in vogue at that time. In view of this, the projected additional capitalization claimed in respect of Railways System (₹31100.00 lakh in 2016-17 and ₹9400.00 lakh in 2017-18), Township & Colony (₹2000.00 lakh in 2015-16, ₹3000.00 lakh in 2016-17 and ₹1442.00 lakh in 2017-18) and General Civil Works for ₹6255.00 lakh in 2015-16 has not been allowed at this stage.

Ash Conveying Pipeline

92. The petitioner has claimed projected additional capital expenditure of ₹11200.00 lakh in 2017-18 for 'Ash Conveying Pipeline'. The petitioner in Form-9 of petition has claimed these expenditure under Regulation 14(i)(ii) of the 2014 Tariff Regulations. However, in response to the Commission's directions vide ROP of the hearing dated 22.1.2016, the petitioner has revised the same and has claimed the expenditure under Regulation 14 (1) (v) of the 2014 Tariff Regulations.

93. In response to the Commission's directions vide ROP of hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has furnished the following justification:

"It is submitted that the Petitioner uses domestic coal having high ash content of about 43%. This results in generation of large volume of ash. Due to the extraordinarily high levels of ash content in the coal being received at the generating station, the un-utilized volume of ash, i.e., Bottom ash and un-utilized Fly ash needs to be disposed of in order to comply with the statutory requirements



of the MoE&F, GOI and JSPCB. It is re-iterated that, the 'Consent to Operate' granted by JSPCB to the Petitioner dated 11.5.2012 and the MOE&F Notification dated 3.11.2009 clearly mandate the Petitioner to ensure 100% utilization of Fly ash through off-take to cement companies and disposal of 100% Bottom ash to the abandoned Coal mines of the coal companies in a phased progressive manner.

It is further submitted that the construction of the Ash Conveying Pipelines shall require the Petitioner to undertake the complex procedure of Land acquisition for laying the 15.5 Km pipeline which shall result in additional cost. The Petitioner has therefore proposed to construct the major portion of the Ash Conveying Pipeline along the embankment of the Railway corridor. Such an option is more economical and would enable the Petitioner to avoid the complexities associated with Land acquisition. However, the Project for construction of Ash Conveying Pipelines can commence only after substantial progress in the Railways Project and therefore the Work Order for the Ash Conveying Pipelines is yet to be placed with concerned developers.

It is submitted that the Letter of Intent (LOI) for majority of the Project packages, for which the extension of cut-off date have been sought, have been placed prior to the COD of the Project. The placement of LOI marks the firm placement of the order. The LOI is subsequently followed by a contract/agreement which is agreed upon between the parties on the various formalities and obligations related to the deliverables.”

Submission of the Respondents

WBSEDCL

94. The respondent, WBSCDCL vide affidavits dated 10.3.2016 and 30.12.2016 has submitted the following:

(a) Domestic coal being used as fuel by the Project ought to have been known to the petitioner at the time of inception of the Project. Accordingly, the ash content and usage of 100% Fly ash was a common knowledge. Despite MOEF Notification dated 3.11.2009, there is no explanation as to why the petitioner waited for specific directions by JSPCB dated 11.5.2012 to initiate mitigation efforts.

(b) The DPR for Ash Conveying Pipelines indicates only the cost-benefit analysis, if the asset is capitalized. There is nothing on record to suggest that the Petitioner discussed and weighted alternates to ash conveying pipelines, which could have been achieved in lesser time and cost as compared to the pipelines now being executed.

(c) Since the delay in execution of ash conveying pipelines is due to delay in execution of Railways System Package, which is attributable to the petitioner, the time and consequent cost overrun cannot be allowed. Hence, it is clear from the above that the Petitioner has failed to establish its case as required under the 2014 Tariff Regulations. It is submitted that the documents produced by Petitioner at the highest, may indicate happening of certain intervening events. However, the Petitioner has not produced any document or records in discharge of its obligation to prove or establish its case that such events:

- (a) have prevented the Petitioner to execute Project Package;
- (b) were not within the control of the Petitioner;
- (c) could not have been avoided by the Petitioner; and



(d)Petitioner has taken reasonable care or complied with prudent utility practices.

Hence, the petitioner has failed to satisfy the tests discussed above, which may entitle it to the relief of extension of cut-off date and additional capitalization.

(d) It is reiterated that the cut-off date as provided under the 2014 Tariff Regulations may only be extended on the basis of documentary evidence. The Commission is bound by the 2014 Tariff Regulations, and its power to examine the case of the petitioner for extension of cut-off date has to be exercised in accordance with the provisions the 2014 Tariff Regulations. The regulations require extension to be only based upon the 'documentary evidence' establishing that the reasons were 'beyond the control' of the Petitioner. In absence of documents to prove the same, no relief can be granted to the Petitioner in this regard.

(e)It may also be noted the project implementation commenced in the year 2007 i.e. under the 2009 Tariff Regulations. Therefore, the petitioner had ample time to capitalize the assets corresponding to the event. The delay has been due to flawed planning and poor implementation by the petitioner. Therefore, any consequential time and cost implication of actions and omissions of the petitioner cannot be passed on to the beneficiaries of the project and thereby the end consumers.

Analysis and Decision

95. The claim of the petitioner for additional capital expenditure in respect of Ash conveying pipeline in 2017-18 as above, has been examined in the light of the submissions of the petitioner in the original petition, the affidavit dated 5.2.2016, the submission made during the hearing on 22.12.2016 along with the submissions of the respondents. Though the petitioner had prayed for extension of cut-off date upto 31.3.2018, it has, based on the current scenario and the difficulties faced submitted that the said works are expected to be completed by 31.3.2019 and has prayed for extension of cut-off date till 31.3.2019. Subsequently, the petitioner has submitted that the same may not even be completed within the period of 31.3.2019 and has accordingly sought liberty to approach the Commission for approval of the cost of such Project packages as and when the same (except for RO Plant which has already been capitalized) is completed. In view of this submission and considering the fact that the capitalisation of projected additional expenditure of the asset/ expenditure before 31.3.2019 is uncertain, the consideration of the prayer of the petitioner for extension of cut-off date of the generating station till 31.3.2019 would not serve any useful purpose. In this background, the prayer of the petitioner for projected capitalisation of the expenditure is not allowed. However, the petitioner is granted liberty to approach the Commission for additional capitalisation based on the actual expenditure incurred for the asset and the same



will be considered in accordance with the provisions of the Tariff Regulations applicable. Based on this, the projected additional capitalization claimed of ₹11200.00 lakh in 2017-18 in respect of Ash Conveying Pipeline has not been allowed.

Reverse Osmosis Plant

96. The petitioner has claimed projected additional capital expenditure of ₹8400.00 lakh in 2015-16 towards 'Reverse Osmosis Plant (RO plant). The petitioner in Form-9 of petition has claimed the said expenditure under Regulation 14(i)(ii) of the 2014 Tariff Regulations. Subsequently, the petitioner in compliance with the directions of the Commission vide ROP of the hearing dated 22.1.2016, has revised the claim under Regulation 14 (1)(iv) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of the hearing dated 12.1.2016, the petitioner vide affidavit dated 5.2.2016 has furnished information as under:

"The generating units of the Petitioner have closed loop condenser Cooling Water System which requires huge quantity of make-up water in Cooling Tower basin for the purpose of cooling. However, such cooling water has high Total Dissolved Solids (TDS) contents for which intermittent blow-down is required to reduce such TDS and Cycle of Concentration (COC) of the cooling water. With both the units running at full load, the CT Blow-down requirement is 424 m³/hr at COC-6. This CT Blow-down contains high TDS in the range of 700-800 ppm, which cannot be utilized further in the system without proper treatment. Therefore, the un-treated component of water remains as excess water in the system, which either needs further treatment before re-utilization or discharged outside the plant boundary.

It is pertinent to note here that the Jharkhand State Pollution Control Board (JSPCB) vide its Consent to Operate letter dated 11.5.2012 directed MPL to ensure Zero Leakage discharge from the generating station. The relevant extracts from the above 'Consent to Operate' awarded by the Hon'ble JSPCB is reproduced hereunder.

"16. That, he (they) shall keep waste water in close circuits and no industrial effluent shall be discharged out of the premises in any condition..."

In order to ensure compliance with the above directions of the JSPCB and to reduce the make-up water consumption, it has become absolutely mandatory for the petitioner to take up the additional capital expenditure through a suitable Project for treatment of the CT Blow-down water in order to obtain a better quality of reusable water thereby ensuring Zero Leakage discharge from the generating station. Accordingly, the petitioner had initiated exploration of the various options/technologies available which can fulfil the above purpose and selected the option of installation of the proposed Reverse Osmosis Plant after detailed discussions with the consulting agency, Tata Consulting Engineers (TCE). On the basis of the feedback provided by TCE, the proposed RO Plant had been approved by the Board of Directors of the Petitioner Company through Resolution dated 27.7.2013. It is pertinent to note here that the Petitioner could not place the work order on the concerned contractors before the approval of the capex Scheme accorded by the Board of Directors.



Thereafter, the Petitioner filed the Interlocutory Application No. 26 of 2013 in Petition No. 274 of 2010 before this Commission for approval of the proposed capital expenditure on RO Plant and the Commission disposed of the same by order dated 7.10.2013 as under:

“Be that as it may, the prayer of the petitioner for in-principle approval of the said schemes during 2009-14 on the ground that the cut-off date of the generating station falls within the next tariff period, is not acceptable, as the same would extend the scope of the 2009 Tariff Regulations (applicable for the period 2009-14) to the next tariff period 2014-19. In short, the cut-off date specified under the 2009 Tariff Regulations cannot extend the provisions of the 2009 Tariff Regulations to the next tariff period. What is not permissible directly cannot be permitted indirectly. For the reasons stated above and since the expenditure in respect of these schemes are to be capitalised during the period 2014-19 as submitted by the petitioner, we are of the view that the same would be governed by the provisions of the 2014 Tariff Regulations, applicable or the period 2014-19. In view of this, the prayer of the petitioner cannot be accepted.”

97. Further, the petitioner in its submission dated 10.1.2017 has stated that it has been complying with the conditions of discharging effluentseven prior to the receipt of 'Consent to Operate (CTO)' dated 11.5.2012. It has also submitted that such report was well within the acceptable norms specified by the JSPCB and hence the requirement of 'Zero Discharge' was not emphasized. The petitioner has further submitted that JSPCB while granting the CTO for 2012, has however emphasized the requirement of 'Zero Discharge' and accordingly, the petitioner in order to ensure compliance with the directives of the JSPCB and in order to reduce the make-up water consumption decided to take up the additional capital expenditure through a suitable Project for treatment of the CT Blow-down water in order to obtain a better quality of reusable water thereby ensuring Zero Leakage discharge from the generating station. Accordingly, the Petitioner has stated that it has explored various options/technologies available which can fulfil the above purpose and had opted for Installation of the Reverse Osmosis Plant after detailed discussions with Tata Consulting Engineers, the Consulting agency and based on the feedback of the said agency, the proposal for RO plant was approved by the Board of Directors of the Petitioner Company vide Resolution dated 27.7.2013. The petitioner vide its submission dated 12.9.2016 has also confirmed that the expenditure towards RO plant has been capitalized on 31.3.2016. Accordingly, the petitioner has prayed that the proposed additional capital expenditure of Rs ₹8400.00 lakh in 2015-16 towards RO Plant may be approved by the Commission. The petitioner has stated that the commissioning of the RO Plant has been further delayed on account of various



factors like the delay in obtaining the clearance certificate for waiver in Excise Duty from the Office of the District Magistrate, etc. for which the extension of the cut-off date was sought for by the Petitioner.

Submissions of the Respondents

KSEBL

98. The respondent KSEBL vide affidavit dated 11.1.2016 has objected to the claim of the petitioner and has submitted as under:

(i) The approval of the Board of Directors of MPL for the work of RO plant was granted on 27.7.2013. Subsequent to this, MPL applied for the clearance certificate only on 5.8.2014 i.e. delay of almost one year.

(ii) The waiver of Excise duty for RO plant is already envisaged in the notification 3/2004-Central Excise dated 8.1.2004. Hence, the receipt of clearance certificate from Excise department was assured for the petitioner. Thus, there is no substance in the submission of the petitioner that MPL could place the purchase order for RO plant only after receipt of such clearance certificate.

(iii) The petitioner could not complete the additional capitalisation works within the cut-off date due to reasons purely attributable to the petitioner only. Hence, the prayer of the petitioner for extension of cut-off date may be disallowed.

WBSEDCL

99. The respondent, WBSEDCL vide affidavits dated 10.3.2016 and 30.12.2016 has submitted the following:

(a) Petitioner in its DPR for RO recognizes that Power Plants such as the present Project ought to have RO system. However, it is not clear why the same was not incorporated while finalizing the DPR for the Project. The petitioner has offered no explanation for such omission. The law in relation to trade effluents discharge has been in existence since 1974, which has been time and again reiterated by the Hon'ble Supreme Court of India vide its various judgments. There was no reason for the Petitioner to wait for specific directions from JSPCB in this regard. It is thus apparent that there has been lack of planning and foresight by the Petitioner while preparing the DPR for the Project.

(b) Delay in execution of RO installation and additional capitalization including IDC, if claimed subsequently, is due to Petitioner's flawed planning and foresight.

(c) Although, the petitioner admits that there has been considerable delay due to contractor designing the RO Plant, no claims or details of claims of Liquidated Damages against the contractor so as to mitigate the losses has been provided by the petitioner. In view of no documentary evidence to establish the mitigation efforts taken by petitioner, the petitioner cannot claim relief under the 2014 Tariff Regulations.



(d) No reason has been provided by the petitioner to explain the delay in approval of RO Plant by the Board of Directors, since the Board's approval was obtained only on 27.7.2013, even though JSPCB had given directions on 11.5.2012. Though the petitioner has submitted that various options to reduce TDS in water used by the Project were discussed, the details of such discussions along with cost-benefit analysis of using such technology have not been placed on record by the Petitioner.

(e) Poor planning and laid back execution cannot be regarded as prudent business practices. Accordingly, the petitioner cannot claim any relief for either extension of cut-off date or additional capitalization in this regard.

Analysis and Decision

100. We have examined the submissions of the parties. It is observed that the delay in execution of the work of the RO Plant has been attributed by the petitioner to the Closed Loop Condenser Cooling Water System, which requires huge quantity of make-up water in Cooling Tower basin for the purpose of cooling and intermittent blow-down is required to reduce such TDS. It is further noticed that the petitioner in order to ensure the compliance with the directions of the JSPCB dated 11.5.2012 and in order to reduce the make-up water consumption decided to take up the installation of RO system in the project and had obtained the Board's approval for the said expenditure during the year 2013. The petitioner has also submitted that the expenditure for the RO system has been capitalised on 31.3.2016 (2015-16) which is on cash basis as per form 9A. Considering the fact that the expenditure incurred during 2015-16 is in compliance with the directions of JSPCB mandating the installation of the RO system, we allow the claim of the petitioner under Regulation 14(2)(ii) of the 2014 Tariff Regulations. This is however subject to the petitioner filing certain additional information on affidavit namely the (i) audited actual expenditure incurred for the asset (ii) LD amount, if any, recovered from the contractor (iii) reasons for delay including IDC, if any; (iv) Cost-benefit analysis and (v) technical capacity assessment at the time of true-up of tariff of the generating station in terms of Regulation 8 of the 2014 Tariff Regulations.

Other Claims

101. The projected additional capital expenditure claimed by the petitioner for the period 2015-16 in respect of other assets/items within the original scope of work of the project is examined below:

Ash Handling System



102. The petitioner has claimed projected additional capital expenditure of ₹716.00 lakh in 2015-16 for 'Ash Handling System (AHS)package under Regulation 14(3) of the 2014 Tariff Regulations. In response to the Commission's directions vide ROP of the hearing dated 12.1.2016, the petitioner has not furnished any details regarding the works to be executed and the reasons/justification for the delay in the execution of the work of 'Ash Handling System, beyond the cut-off date. It is however noticed that the work of 'Ash handling system' is continuous in nature and the said work which is included in the original scope of work of the project is being carried out in phases, during the life time of the project. In this background, we are inclined to allow the claim of the petitioner under this head in terms of Regulation 14(3)(iv) of the 2014 Tariff Regulations. This is however subject to the petitioner submitting relevant details regarding the work executed, at the time of truing-up of tariff, in terms of Regulation 8 of the 2014 Tariff Regulations.

Coal Handling System

103. The petitioner has claimed projected additional capital expenditure of ₹959.00 lakh in 2015-16 and ₹2142.00 lakh in 2016-17 towards 'Coal Handling System' under Regulation 14(3) of the 2014 Tariff Regulations. In response to the Commission's directions vide ROP of hearing dated 12.1.2016, the petitioner has not furnished any details of the works to be executed, the reasons/justification for the delay in the execution of 'Coal Handling System' beyond the cut-off date of the project. In this background, the projected additional capital expenditure for 'Ash Handling System claimed by the petitioner after the cut-off date is not allowed.

BOP Electrical

104. The petitioner has claimed projected additional capital expenditure of ₹643.00 lakh in 2015-16 for 'BOP Electrical' under Regulation 14(3) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of hearing dated 12.1.2016 to furnish additional information, the petitioner has not submitted any details of the works to be executed, the reasons/justification for the delay in the execution of 'BOP Electrical' works beyond the cut-off



date of the project. In view of this, the projected additional capital expenditure for 'BOP Electrical' after the cut-off date is not allowed.

Design Engineering and Project Management

105. The petitioner has claimed projected additional capital expenditure of ₹47.00 lakh in 2015-16, ₹560.00 lakh in 2016-17 and ₹766.00 lakh in 2017-18 for 'Design Engineering and Project Management' under Regulation 14(3) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of hearing dated 12.1.2016 to furnish additional information, the petitioner has not submitted any details of the works to be executed, the reasons/justification for the delay in the execution of 'Design Engineering and Project Management' beyond the cut-off date. In view of this, the projected additional capital expenditure for 'Design Engineering and Project Management' after the cut-off date is not allowed.

Pre-operative expenses

106. The petitioner has claimed projected additional capital expenditure of ₹2026.00 lakh in 2015-16 and ₹899.00 lakh in 2016-17 for 'Pre-operative expenses' under Regulation 14(3) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of hearing dated 12.1.2016 to furnish additional information, the petitioner has not submitted any details regarding the type of expenses and reasons and justification for claiming beyond the cut-off date. In view of this, the projected additional capital expenditure for 'Pre-operative expenses' after the cut-off date is not allowed.

Additional Spares

107. The petitioner has claimed projected additional capital expenditure of ₹1956.00 lakh in 2015-16 for 'Additional Spares' under Regulation 14(3) of the 2014 Tariff Regulations. In response to the directions of the Commission vide ROP of hearing dated 12.1.2016 to furnish additional information, the petitioner has not submitted any details of the works to be executed, the reasons/justification for the delay in claiming additional spares beyond the cut-off date of the



project. In view of this, the projected additional capital expenditure towards 'additional spares' after the cut-off date, is not allowed.

108. In addition to the above, the petitioner has claimed projected additional capital expenditure in respect of other assets/items which are not within the original scope of work of the project. The petitioner in Form-9 of petition has claimed the expenditure under Regulation 14(i),(ii),(iii) of the 2014 Tariff Regulations, but has not indicated the specific regulation against which the said claims have been made. The same is detailed below:

(₹ in crore)

Package	2014-15	2015-16	2016-17	2017-18	2018-19
Building and Civil Engineering works	1.00	6.90	5.70	1.30	0.00
Transformer and sub-station equipment	0.00	8.95	0.00	0.00	0.00
Plant & Machinery	0.00	4.60	1.60	12.10	2.80
Other Assets - Unclassified	0.00	8.15	4.75	4.00	2.10
IT Equipment	0.00	0.00	0.00	0.00	0.75
Total	1.00	28.60	12.05	17.30	5.65

109. The Commission vide ROP of hearing dated 12.1.2016 directed the petitioner to furnish the following information:

"Period 2014-19

i) Asset wise breakup details of "Plant and Machinery" Building & civil works" and "Other un-classified assets" along with the relevant provisions of the regulations under which each asset/work has been claimed in Form-9A and the reasons as to how the said items are also related to the reasons furnished for extension of cut-off date;"

110. It is observed that petitioner has not filed any details regarding the break-up of the "Plant and Machinery" Building & Civil works" and "Other un-classified assets" along with justification and the relevant provisions of the regulations under which each asset/work has been claimed for 2014-19. In this background, we are not inclined to allow the projected additional capital expenditure in respect of items/assets which are not in the original scope of work as shown in the above table. However, the petitioner is granted liberty to approach the Commission at the time of truing-up of tariff along with the detailed justification and the provisions of relevant regulations under which the expenditure has been claimed.



111. Based on the above discussions, the projected additional capital expenditure allowed for the period 2014-19 is summarized as under:

(₹ in lakh)					
Package Name	2014-15	2015-16	2016-17	2017-18	2018-19
BTG Package - Station	(-) 416.00	0.00	0.00	0.00	0.00
Cost of Land & Site	19505.00	0.00	0.00	0.00	0.00
General Civil Works (GCW)	9793.00	0.00	0.00	0.00	0.00
Plant Water System (PWS)	214.00	0.00	0.00	0.00	0.00
Ash Handling System (AHS)	(-)413.00	716.00	0.00	0.00	0.00
Coal Handling System	(-)502.00	0.00	0.00	0.00	0.00
Railway System Package	0.00	0.00	0.0	0.00	0.00
BOP Electrical	45.00.	0.00	0.00	0.00	0.00
Township & Colony	57.00	0.00	0.00	0.00	0.00
RO Plant	0.00	8400.00			
Design, Engineering & project Management	787.00	0.00	0.00	0.00	0.00
Pre-Operative Expenses	1836.00	0.00	0.00	0.00	0.00
IT System for Software	414.00	0.00	0.00	0.00	0.00
Interest During Construction (embedded in above works)	145.00	-	0.0	0.0	-
Cash expenses towards land	(-) 5507.00				
Total	25958.00	9116.00	0.00	0.00	0.00

112. As stated, the additional capital expenditure claimed by the petitioner includes the IDC amount. However, while considering the claims of the petitioner for additional capitalization item wise, the pro rata IDC has been reduced from the additional capitalization amount. The petitioner is however directed to furnish the calculation of the IDC along with basis of IDC allocation towards additional capital expenditure and the reconciliation of the same with the books of accounts.

Initial Spares

113. The Commission vide ROP of hearing dated 12.1.2016 had directed the petitioner to furnish the “*details of initial spares capitalized as on COD of the generating station and as on cut-off date*”. In response, the petitioner vide affidavit dated 5.2.2016 has submitted that the initial spares were procured along with different packages and the same has been capitalized. It has also stated that the list of such initial spares cannot be culled out from the total capitalized value of the packages. However, the petitioner has provided a tentative list of initial spares based on Engineering estimates as under.

(₹ in crore)



Package	As on 24.7.2012	Capitalized from COD till 31.3.2014	Capital Spares capitalized as on 31.3.2014
BTG Package	16.64	45.38	62.02
Plant Water System (PWS) Package	0.01	0.07	0.08
Ash Handling System (AHS) Package	0.05	0.24	0.30
Coal Handling System (CHS) Package	3.29	4.47	7.76
BOP Electrical	1.26	0.22	1.48
Total	21.25	50.39	71.64

114. Regulation 9 of the 2009 Tariff Regulations provided for capitalization of initial spares as under:

“9.(1)Initial spares shall be capitalised as a percentage of the original projectcost, subject to following ceiling norms:

(i) Coal-based/lignite-fired thermal generating stations 2.5%”

115. As stated, the project cost considered and allowed as on the cut-off date of the project (31.3.2015) is ₹416490.69lakh. Hence, 2.5% of this cost works out to ₹10412.27lakh. The petitioner has however claimed initial spares for ₹7164.00lakh, which is within the ceiling limit of 2.5% specified under the above said regulations. In view of this, the claim of the petitioner is allowed.

Capital Cost for 2014-19

116. Accordingly, the capital cost allowed for the purpose of tariff is as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	416490.69	442448.69	451564.69	451564.69	451564.69
Addition due to Projected additional Capitalisation	25958.00	9116.00	0.00	0.00	0.00
Closing Gross Block	442448.69	451564.69	451564.69	451564.69	451564.69

Debt-Equity

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

“19. Debt-Equity Ratio

(1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:



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

118. The equity of ₹124947.21lakh and the normative loan of ₹291543.48 lakh as on 31.3.2014 have been allowed by the Commission for the period 2009-14. The same has been considered as normative loan and equity as on 1.4.2014. The Commission has also allowed debt equity ratio of 70:30 while revising the tariff of the generating station for the period 2009-14. This has been considered for the admitted additional capital expenditure in terms of the above regulations.

Return on Equity

119. 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.



120. 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.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis."

121. Though the regulation prescribes the computation of effective tax rate on the basis of tax paid, we deem it proper to allow the grossing up on MAT rate, considering the fact that the matter is getting decided during the year 2017-18. Accordingly, for the present, the effective tax rate (MAT) of 20.961% has been considered for the 2014-15 and 21.342% for 2015-16 onwards till 2018-19 for the purpose of grossing up of the base rate of 15.5%. Based on the above, the rate of Return on Equity works out to 19.610% for 2014-15 and 19.705% for 2015-16 onwards. This is subject to truing up in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, return on equity has been worked out as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Equity	124947.21	132734.61	135469.41	135469.41	135469.41
Addition due to Additional Capitalisation	7787.40	2734.80	0.00	0.00	0.00



Closing Equity	132734.61	135469.41	135469.41	135469.41	135469.41
Average Equity	128840.91	134102.01	135469.41	135469.41	135469.41
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	20.961%	21.342%	21.342%	21.342%	21.342%
Rate of Return on Equity (Pre Tax)	19.610%	19.706%	19.706%	19.706%	19.706%
Return on Equity (Pre Tax)	25265.70	26426.14	26695.60	26695.60	26695.60

Interest on Loan

122. 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.”

123. In terms of the above regulation, the normative loan outstanding as on 31.3.2014 has been considered as normative loan as on 1.4.2014. The petitioner vide Form-13 A has furnished the weighted average rate of interest on loan. This has been considered for the purpose of calculation of interest on normative loan. Necessary calculations for interest on loan are as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Notional Loan	2,91,543.48	309714.08	316095.28	316095.28	316095.28
Cumulative Repayment of loan upto previous year	45071.28	60520.02	81298.93	104422.70	127738.95
Net Opening Loan	246472.21	249194.06	234796.36	211672.58	188356.33
Addition due to Additional Capitalisation	18170.60	6381.20	0.00	0.00	0.00
Repayment of Loan during the period	15448.74	20778.91	23123.78	23316.25	29669.00
Net Closing loan	249194.06	234796.36	211672.58	188356.33	158687.33
Average Loan	247833.13	241995.21	223234.47	200014.45	173521.83
Weighted Average Rate of Interest on Loan	11.92%	11.92%	11.92%	11.92%	11.92%
Interest on Loan	29533.45	28837.76	26602.11	23835.06	20678.02

Depreciation

124. Regulation 27 of the 2014 Tariff Regulations provides as under:

“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) alongwith 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.”

125. The petitioner vide Form 11 has furnished the weighted average rate of depreciation. This has been considered for computation of depreciation. Accordingly, depreciation has been calculated as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	416490.69	442448.69	451564.69	451564.69	451564.69
Addition due to Projected Additional Capitalisation	25958.00	9116.00	0.00	0.00	0.00
Closing Gross Block	442448.69	451564.69	451564.69	451564.69	451564.69
Average Gross Block	429469.69	447006.69	451564.69	451564.69	451564.69
Value of freehold land	-	-	-	-	



Rate of Depreciation	3.60%	4.65%	5.12%	5.16%	6.57%
Depreciable Value (90.00%)	386522.72	402306.02	406408.22	406408.22	406408.22
Remaining Depreciable Value	341451.44	341786.00	325109.30	301985.52	278669.27
Depreciation	15448.74	20778.91	23123.78	23316.25	29669.00

O&M Expenses

126. Regulation 29(1) (a) of the 2014 Tariff Regulations provides the following O&M expense norms for coal based generating stations of 500MW capacity:

(₹ in lakh/MW)				
2014-15	2015-16	2016-17	2017-18	2018-19
16.00	17.01	18.08	19.22	20.43

127. Accordingly, the petitioner has claimed O&M expenses for 2014-19 as under:

(₹ in lakh)						
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
O&M Expenses under Regulation 29(1)	16800.00	17861.00	18984.00	20181.00	21452.00	95278.00
O&M Expenses under Regulation 29(2)						
Water Charges	955.00	1117.00	1114.00	1114.00	1114.00	1114.00
Total O&M Expenses	17755	18978	20098	21295	22566	96392

128. The normative O&M expenses claimed by the petitioner are in terms of the 2014 Tariff Regulations and hence allowed.

Water Charges

129. Regulation 29(2) of the 2014 Tariff Regulations provide 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.”

130. In terms of the above regulation, water charges are to be allowed based on water consumption depending upon type of plant, type of cooling water system etc. subject to prudence check of the details furnished by the petitioner.



131. The petitioner has submitted that the Water Charges are based on the gross generation during the year and estimated Specific Raw Water Consumption per unit. The petitioner has estimated that about 2.5 m³ of Raw Water is required for generation of 1000 units. Accordingly, the projected Average Annual Water Charges during the period 2014-19 claimed by the petitioner based on the Raw Water Charges of ₹5.70/m³, is as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Generation (MUs)	7818.30	7839.72	7818.30	7818.30	7818.30
Specific Raw Water Consumption (M ³ /MWh)	2.50	2.50	2.50	2.50	2.50
Total Raw Water Consumption (M ³)	19545750	19599300	19545750	19545750	19545750
Rate of Raw Water Consumption (₹ /m ³)	5.70	5.70	5.70	5.70	5.70
Total Raw Water Expenses(₹ in crore)	11.14	11.17	11.14	11.14	11.14
Unit Capacity (MW)	1050	1050	1050	1050	1050
Regulated Capacity (MW)	900	1050	1050	1050	1050
Projected Raw water expenses station(₹ in crore)	9.55	11.17	11.14	11.14	11.14

132. The Commission vide ROP of the hearing dated 12.1.2016 had directed the petitioner to furnish the details of Water charges such as contracted quantum of water and allocated quantity along with justification, actual annual water consumption since COD, and the rate of water charges along with copy of notification for the water charges. In response, the petitioner vide affidavit dated 12.2.2016 has submitted that it has entered into an agreement with Damodar Valley Corporation (DVC) on 14.5.2010 for supply of Raw Water and in terms of the said agreement, the contracted quantum of water for withdrawal by the petitioner is 29.6 Million Gallons per day (MGD). The petitioner has also submitted that the rate of Raw Water at the time of signing of the agreement was ₹2.50/100 Gallons and the said rates were revised through subsequent notifications dated 14.6.2011 and 9.8.2012 to ₹5.70/KL. In addition to the Raw Water Charges, the petitioner has submitted that it is liable to pay Water cess as per Notification dated 6.5.2003 of the Ministry of Environment & Forests, GOI (MoE&F). The detailed computation of the Raw Water charges along with water cess since COD of unit as submitted by the petitioner is as under:

	2012-13	2013-14
Raw Water Consumption- Unit-I (KL)	8905139	7516287
Raw water consumption Unit-II (KL)	5345836	8988836



Raw water consumption at station (KL)	14250975	16505123
Rate of Raw water charges (₹/KL)	3.68	5.70
Raw water charges (₹ in crore)	5.24	9.41
Water Cess (₹ in crore)	0.24	0.30
Total raw water charges for station(₹ in crore)	5.48	9.71

133. The respondent, KSEBL has submitted that the petitioner has not furnished any documentary proof showing details of specific raw water consumption by the plant. Accordingly, it has prayed that the petitioner may be directed to provide documentary proof showing details of specific raw water consumption by the plant along with details of type of plant, type of cooling water system etc., in terms of the regulations.

134. The petitioner has submitted that the audited raw water cost for the period of 2014-15 is ₹946.18 lakh. In view of the above, the actual water cost of ₹946.18 lakh for the period 2014-15 has been considered for the tariff period 2014-19. Based on the above discussions, the total O&M expenses, including water charges, allowed for the period 2014-19 is as under:

	<i>(₹ in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
O&M Expenses claimed	16800.00	17861.00	18984.00	20181.00	21452.00	95278.00
O&M Expenses allowed	16800.00	17861.00	18984.00	20181.00	21452.00	95278.00
Water Charges claimed	955.00	1117.00	1114.00	1114.00	1114.00	955.00
Water Charges allowed	946.18	946.18	946.18	946.18	946.18	946.18
Total O&M Expenses claimed	17755.00	18978.00	20098.00	21295.00	22566.00	96233.00
O&M Expenses allowed	17746.18	18807.18	19930.18	21127.18	22398.18	96224.18

135. The water charges allowed as above are subject to truing-up at the end of the tariff period for which the petitioner is directed to furnish all the actual expenses incurred towards water charges.

Capital spares

136. The petitioner has not claimed capital spares on projection basis during the period 2014-19. Accordingly, the same has not been considered in this order. The claim of the petitioner, if any, at the time of truing-up of tariff, shall be considered on merits, after prudence check.

Additional O&M expenses for Ash Disposal

137. As regards the claim of the petitioner for additional O&M expenses for Ash disposal, the Commission in order dated 19.11.2014 had approved the projected additional O&M expenses of



₹1366.00 lakh in 2012-13 and ₹4100.00 lakh in 2013-14. We have in this order, allowed the actual Ash disposal expenses of (-)₹11.00 lakh in 2011-12, ₹861.00 lakh in 2012-13 and ₹3376.00 lakh in 2013-14 as stated in para 54 above as additional O&M expenses. The petitioner has claimed total projected additional O&M expenses of ₹260.90 lakh during 2014-18 (₹60.98 lakh in 2014-15, ₹62.70 lakh in 2015-16, ₹66.50 lakh in 2016-17, ₹70.72 lakh in 2017-18) towards Ash disposal and has submitted as under:

(a) The Coal received at the Maithon Site is of sub-optimal quality as compared to that of Design Coal and has high Ash content to the tune of about 43% by weight. With such high percentage of Ash in Coal, the average daily Ash Generation is about 7000 Tons.

(b) The Fly Ash Generated is partially sent to the Ash Pond in wet form along with Bottom Ash for temporary storage and partially sent to nearby developers in dry form. Due to limited capacity of the Ash Pond, the Wet Ash is also required to be evacuated to designated low lying areas within 100 Km radius of the Generating Station for the purpose of 100% utilization of Fly Ash in compliance with the directive of the MoEF under Notification dated 03.11.2009. The MoE&F Notification dated 3.11.2009 and the JSPCB 'Consent to Operate' for MPL are annexed for the kind perusal of the Commission.

(c) Among the various routes of ash utilization, mine stowing has been being identified as the most effective option of Ash Utilization as per the MoE&F notification. Since there is no Cement or Brick manufacturing Industry in the vicinity of the Project site, the only feasible option for Ash Utilization left with MPL is mine stowing. MPL has entered in an agreement with Eastern Coalfields Limited (ECL) to utilize their abandoned mines for the purpose of mine stowing. These mines are located at a distance of about 20 km from the Maithon Power generating station.

(d) ECL mines have been allotted with proper Environmental Clearance since August, 2012 for that purpose. MPL has therefore engaged M/s Amex and M/s Nirman, who have been operating the Ash Stowing operation through excavation and transportation of ash from MPL Ash Ponds, Main Silos & Hydrobins through Bulklers/Hyvas. The cost of such excavation & transportation of Ash is estimated at about ₹235/Ton for 2014-15. MPL has escalated such rate of 2014-15 by 6.35% for each subsequent years of the tariff period 2014-19 as specified by the Commission for O&M Expenses under the 2014 Tariff Regulations.

(e) It is evident that expenses for Ash Disposal are completely beyond the control of MPL and these expenses are not included in above definition of normative O&M Expenses. MPL, therefore, humbly submits that Ash Disposal expenses are required to be reimbursed over and above the normative O&M expenses proposed to ensure continuous operation of the Plant. It is further noteworthy that the Commission has noted the issue in the tariff Order dated 19.11.2014 and has allowed MPL to recover the Ash Disposal expenses from the beneficiaries over and above the normative O&M expenses for the period 2012-14.



138. The petitioner has submitted that the projected 'Ash Disposal expenses' claimed for the period 2014-19 has been computed only with consideration of mines Ash stowing during the period 2014-18 as both dry Fly Ash off-take by Cement Companies and the commissioning of the Ash Conveying Pipelines is expected during 2018-19. Accordingly, the petitioner has prayed that the Commission may approve the proposed Ash Disposal expenses for the period 2014-19 claimed by the petitioner over and above the normative O&M expenses to be recovered from the beneficiaries.

139. We have examined the matter. Regulation 29(1)(a) of the 2014 Tariff Regulations provide for the grant of normative O&M expenses to the generating stations. As regards the grant of additional O&M expenses over and above the normative O&M expenses for the period 2014-19, we notice that Petition No. 172/MP/2016 has been filed by NTPC praying for recovery of additional expenditure incurred due to sharing of transportation cost of fly ash consequent to Ministry of Environment and Forest, Govt. of India Notification dated 25.1.2016 as 'Change in Law' event and the same is pending for consideration of the Commission. In view of this, the prayer of the petitioner has not been considered at this stage. The decision of the Commission in Petition No. 176/MP/2016 shall be applicable in the present case of the petitioner. Meanwhile, the petitioner is directed to furnish the details regarding the ash utilization and the revenue earned at the time of truing-up of tariff of the generating station in terms of Regulation 8 of the 2014 Tariff Regulations.

Additional O&M expenses for RO Plant

140. The petitioner vide affidavit dated 19.2.2016 has also claimed additional O&M expenses on account of Operation & Maintenance of the RO plant. The petitioner has submitted that it has sought approval of additional capital expenditure for installation of Reverse Osmosis Plant which is within the original scope of work of the project. It has also submitted that such RO plant has been conceived in order to comply with the directions of the JSPCB vide its Consent to Operate letter dated 11.5.2012 to ensure 'Zero Leakage' discharge from the generating station. The relevant portion of the letter dated 11.5.2012 is extracted as under:



“16. That, he (they) shall keep waste water in close circuits and no industrial effluent shall be discharged out of the premises in any condition.”

141. The petitioner has further submitted that the RO Plant has been capitalised during 2015-16. Accordingly, the petitioner has the estimated additional O&M expenses for RO plant amounting to ₹9.29 crore for 2016-17, ₹9.91 crore for 2017-18 and ₹10.63 crore for 2018-19.

142. The respondent KSEBL vide affidavit dated 29.3.2016 has submitted that the claim of the petitioner for expenditure towards RO plant over and above the normative expenses is against the provisions of the Regulation 29 of the 2014 Tariff Regulations.

Analysis and Decision

143. The matter has been examined. It is observed that the petitioner has claimed additional capital expenditure of ₹8400.00 lakh in 2015-16 towards RO system on the ground that the same is in compliance with the directions of the JSPCB. It has also submitted that expenditure has been capitalised during the period 2015-16. Accordingly, we have in this order allowed the claim of the petitioner under Regulation 14(2)(ii) of the 2014 Tariff Regulations, subject to the petitioner filing certain additional information on affidavit namely the (i) audited actual expenditure incurred for the asset (ii) LD amount, if any, recovered from the contractor (iii) reasons for delay including IDC, if any; and (iv) Cost-benefit analysis, at the time of truing-up of tariff of the generating station in terms of Regulation 8 of the 2014 Tariff Regulations. In this background, we are not inclined to allow the claim of the petitioner for additional expenses over and above the normative O&M expenses allowed in respect of the generating station. However, the prayer of the petitioner shall be considered on merits based on the justification/details furnished at the time of truing-up of tariff of the generating station.

Operational Norms

144. The operational norms in respect of the generating station allowed in Commission's order dated 19.11.2014 is as under:

Target Availability (%)	85
Specific Oil Consumption (ml/kWh)	1.00



Auxiliary Power Consumption (%)	6.5
Heat Rate (kCal/kWh)	2425

145. The operational norms considered by the petitioner for the purpose of tariffs as under:

Normative Annual Plant Availability Factor(%)	85
Heat Rate (kCal/kwh)	2375
Auxiliary Power Consumption (%)	5.75
Specific Oil Consumption (ml/kWh)	0.50

146. The operational norms claimed by the petitioner are discussed as under:

Normative Annual Plant Availability Factor

147. 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

148. The petitioner has considered the Target Availability of 85% for the period 2014-19. In terms of Regulation 36(a) of the 2014 Tariff Regulations, the Target Availability of 83% is allowed for the period 2014-15 to 2016-17 and 85% for the period 2017-18 and 2018-19.

Heat Rate (kcal/kwh)

149. Regulation 36 (C) (c) of the 2014 Tariff Regulations provides, Station Heat Rate for the thermal generating station having COD on or after 1.4.2009 till 31.3.2014 as under:

“36(c) Thermal Generating Station having COD on or after 1.4.2009 till 31.03.2014

(i) Coal-based and lignite-fired Thermal Generating Stations

$$= 1.045 \times \text{Design Heat Rate (kCal/kWh)}$$

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.

Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.”



150. The petitioner vide Form-2 of the affidavit dated 27.5.2015 has furnished the Turbine Cycle Heat Rate of 1945 Kcal/ kWh and Boiler efficiency of 87.80%. The petitioner has further submitted that the Commission in its order dated 19.11.2014 had relaxed and allowed the Heat rate norm to 2425 Kcal/Kwh for the period 2011-14.

151. The Commission vide ROP of the hearing dated 10.3.2016 had directed the petitioner to furnish the reasons for the difference in design heat rate, as the design heat rate indicated by the petitioner was 2294 kcal/kwh during the period 2009-14 and 2215.26 (1945/87.8%) kcal/kwh during the period 2014-19. In response, the petitioner vide affidavit dated 1.4.2016 has submitted that it has commissioned Unit I on 1.9.2011 and Unit II on 24.7.2012. It has also submitted that the Boiler, Turbine & Generator (BTG) package has been supplied by the M/s BHEL and as per contract with BHEL, the Guaranteed Turbine Heat Rate & Boiler Efficiency on Design Coal is 1946 Kcal/Kwh and 87.8% respectively. Accordingly, it has submitted that the Design Heat Rate of the above Units works out to 2216 Kcal/Kwh using Design Coal. The petitioner has also clarified that the ceiling limit of Design Heat Rate, i.e., 2294 Kcal/Kwh for 2011-14 is as per provisions of the 2009 Tariff Regulations. The petitioner while pointing out that the Design Heat Rate of the Project continues to be 2216 Kcal/Kwh using Design Coal has requested that the Commission may consider the Design Heat Rate as 2216 Kcal/Kwh (using Design Coal). The petitioner has further stated that Boiler Efficiency has reduced to 85.5% with the coal actually fired during the PG Test whereas, BHEL has guaranteed the Boiler Efficiency at 87.8% using Design Coal. Accordingly, it has submitted that the Commission in order dated 19.11.2014 had determined the Station Heat Rate of the Project for the period 2011-14 taking into consideration the deterioration of Boiler efficiency on account of use of sub-optimal quality of coal. The petitioner has added that the Commission in the said order had provided an operating range of Station Heat Rate by defining the lower limit as 2360.47 Kcal/KWh (based on Design Heat Rate at 2216 Kcal/KWh) and upper limit as 2425 Kcal/KWh (similar to generating stations of NTPC), subject to tuning-up. The petitioner has further submitted that the quality of coal received at the Project site has not yet improved to the level of Design coal properties and the weighted average GCV of coal for year 2014-15 is about



3983 Kcal/Kwh and therefore, the condition has remained the same, wherein Boiler Efficiency could not be achieved up to the level of the design efficiency. The petitioner has therefore submitted that the Guaranteed Boiler Efficiency of 87.8% using Design Coal as envisaged earlier is equivalent to the Boiler Efficiency of 85.5% using actual coal received by the Petitioner. Accordingly, the petitioner has prayed that the Commission may therefore consider the value of Boiler Efficiency at 85.5% as obtained during the PG Test with actual coal while determining the Design Heat Rate of the Units of the generating station. It has stated that the Design Heat Rate of the Units of the generating station with actual coal would therefore work out to 2276 Kcal/KWh.

152. We have examined the matter. The issue of deviation in the design boiler efficiency and the actual boiler efficiency was raised by the petitioner in Petition No. 274/2010 and the Commission after considering the submissions of petitioner and the actual values of the PG test vide had relaxed the norms of the station heat rate vide order dated 19.11.2014. The relevant para of the order is quoted below.

“100. We have examined the submissions of the petitioner. As per the submission of the petitioner, the designed unit Heat Rate considering the boiler efficiency of 87.8% is found to be 2216.4 kCal/ kWh at 0% make-up water and at 330C ambient temperature as guaranteed by the OEM M/s BHEL. Considering the 6.5 % margin on the design heat rate as per the 2009 Tariff Regulations, the normative station Heat Rate works out as 2360.47 Kcal/kWh. It is observed from the PG test results that parameters like Steam Generator MCR, Main Steam Temperature and Pressure, Flue Gas temperature at RAPH outlet, un-burnt carbon in Bottom Ash & Fly Ash, Auxiliary Power Consumption etc., were achieved as per Guaranteed values. However, the boiler efficiency achieved was 85.50% as against the guaranteed figure of 87.8 %. This appear to be due to GCV of 3814.81 kCal/kg of coal used in the test as against the design coal of GCV of 4671kCal/kg. Under the 2009 Tariff Regulations, minimum boiler efficiency has been specified of 85% for sub-bituminous Indian coal at main steam temperature of 5370 C and Pressure of 170 Kg/cm² and Turbine Cycle Heat rate of 1950 kCal/kWh. This would translate into a ceiling design heat rate of 2294 kCal/ kWh. Considering 6.5 % margin over ceiling design heat rate, the gross normative ceiling heat rate works out at 2443 Kcal/kWh. If the guaranteed design heat rate of a machine is better than the ceiling design value as per the 2009 Tariff Regulations, then the better value as per guaranteed design shall be considered for computing the Gross Normative Station Heat Rate. In the instant case, the design value of 2216.4 kCal/ kWh is less than the ceiling value of 2294 kCal/kWh. However, due to inferior coal quality now being received by the generating station than the coal used for design, the petitioner has not been able to achieve Heat Rate of 2360.47 kCal/ kWh. Accordingly, the petitioner has prayed for relaxation of norms of Station Heat Rate to 2443 kCal/ kWh based on designed heatrate. Further, as per the performance guarantee test results, the Station Heat Rate has been worked out as 2280 Kcal/kWh. This leaves a margin of 3.55% only instead of 6.5% over the design heat rate. However, due to less PLF of 65% (approx) during the years 2012-13 and 2013-14, this margin of 3.5% is not sufficient. It is noticed that generating stations of NTPC similar to the instant generating station have been allowed the Heat Rate norm in the order of 2425 kCal/ kWh in instant case. In the light of above, we consider it prudent to relax the heat rate norm to 2425 kCal/ kWh for the instant generating station, subject to the condition that any saving due to



actual Heat Rate being lower than 2425 kCal/kWh and up to 2360.47 kCal/kWh should be passed on to the beneficiaries in full and the benefit of heat rate achieved below 2360.47 kCal/kWh, may be retained by the petitioner. ”

153. The Commission in 2009-14 tariff allowed the GSHR of period 2425 kCal/kWh with a rider that up to 2360.47 kCal/kWh should be passed on to the beneficiaries in full and the benefit of heat rate achieved below 2360.47 kCal/kWh, may be retained by the petitioner. The petitioner has submitted that Boiler Efficiency is 85.5% by using actual coal received by the petitioner as the quality of coal received remains the same. By considering the boiler efficiency of 85.5% and Turbine cycle heat rate of 1945 Kcal/kWh, the Gross Station Heat Rate of the generating station works out as 2377 kCal/kWh ($1.045 \times 1945 / 0.855$) for the period 2014-19. However, the petitioner has considered the Gross Station Heat Rate of 2375 kCal/kWh. The GSHR claimed by the petitioner during 2014-19 is less than the GSHR allowed during 2009-14 period. In view of this, the Gross Station Heat Rate of 2375 Kcal/kWh for the period 2014-19 has been allowed.

Auxiliary Power Consumption

154. Regulation 36 (E) (a) of the 2014 Tariff Regulations provides Auxiliary Power Consumption of 5.75% for the coal based generating stations of 500 MW sets with induced Draft cooling tower with steam driven BFP. Accordingly, the Auxiliary Power Consumption of 5.75% considered by the petitioner is in order and is allowed.

155. The petitioner vide affidavit dated 27.5.2015 has claimed increase in Auxiliary Power Consumption (APC) due to installation of the RO plant. In justification of the same, the petitioner has submitted that the RO plant operation involves various pumps and motors which are expected to increase the APC by 1327 kW which turns in to increase in APC by 0.148% at 85% PLF and 0.126% at 100% PLF. Since the actual data of APC of the RO plant and the actual data of APC for the generating station is presently not available, the issue of increase in APC due to installation of the RO plant shall be examined at the time of truing-up of tariff of the generating station.

Interest on Working Capital



156. Sub-section (a) 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:

(a) Coal-based/lignite-fired thermal generating stations:

- (i) Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*
- (ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;*
- (iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;*
- (iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;*
- (v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and*
- (vi) Operation and maintenance expenses for one month.*

Fuel Components and Energy Charges in working capital

157. The petitioner has claimed cost for fuel components in working capital based on ‘as fired’ GCV of coal procured and burnt for the preceding three months of January, 2014, February, 2014 and March, 2014 and secondary fuel oil (considering the average cost LDO and HFO) for the preceding three months of January, 2014, February, 2014 and March, 2014, as under:

	<i>(₹ in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal for 2 months	29551.00	30000.00	30285.00	30656.00	31032.00
Cost of Secondary fuel oil 2 months	31000.00	31100.00	31000.00	31000.00	31000.00

158. It is observed that the computation of Energy Charges and Fuel component (coal cost) in the working capital for the period 2014-19 is based on “as received” GCV of coal. The Commission vide ROP of the hearing dated 12.1.2016 directed the petitioner to clarify, amongst others, the following:

“The petitioner has not furnished „as received GCV“ of coal for the period January to March 2014. As per the requirement of 2009 Tariff Regulation, (3rd Amendment) the generating company is required to furnish the “As received GCV” along with „as fired” GCV to the beneficiaries along



with the bill. Clarify the reasons as to why the „as received“ GCV for the month of January, February & March, 2014 have not been furnished.

159. In response, the petitioner vide affidavit dated 12.2.2016 has submitted that the monthly billing during the year 2011-14 has been carried out considering “as fired GCV” of coal as per Regulation 21 (6) of the 2009 Tariff Regulations. It has also submitted that Form-15 along with the coal bills received from the coal companies has been filed before the Commission after serving copies of the same on the beneficiaries. The petitioner has however submitted that the process of sampling of coal at the receiving/unloading point was under development and the petitioner has started measuring the “as received GCV” of coal from 1.4.2014, in compliance with the provisions of the 2014 Tariff Regulations. Therefore, the petitioner has submitted that the “as received GCV” of coal for the period from January, 2014 to March, 2014 could not be furnished along with this petition. The petitioner has further requested that in absence of “as received” GCV of coal from January, 2014 to March 2014, the Commission may consider ‘as received’ GCV of coal for the months of April, 2014 to June, 2014.

160. Thereafter, the petitioner vide affidavit dated 7.4.2016 while confirming that the system for taking ‘as received’ GCV from Wagon/truck top has not yet been installed, has submitted that it is making best efforts to comply with the directive of the Commission within the shortest possible time. Accordingly, the petitioner, keeping in view the requirement for installation of the new system for Coal sampling in compliance with the directions of the Commission, has prayed that the Commission in exercise of its “Power to Relax” under Regulation 54 of 2014 Tariff Regulations allow the petitioner to continue to perform the coal sampling from crusher outlet for measurement of “as received” GCV of coal. The petitioner has further requested that the Commission may schedule the visit of its representatives to the Project site after the petitioner predominantly starts receiving crushed/sized Coal of (-100 mm) at site.

161. The Commission vide ROP of the hearing dated 6.10.2016 directed the petitioner to furnish the “as billed” GCV of coal received during January 2014, February 2014 and March, 2014. In response, the petitioner vide affidavit dated 18.10.2016 has submitted the Weighted Average GCV



of Coal "as billed" by the coal companies during the months of January 2014, February, 2014 and March 2014 as under:

Month	GCV of coal "as billed" by coal companies (kCal/Kg)
January, 2014	5064.70
February, 2014	4980.62
March, 2014	4962.73

162. The petitioner has further submitted that it has already initiated the procedure of collection of samples from the Track Hopper Area from 13.10.2016 and is recording the GCV of Coal Samples collected from Track Hopper Area on daily basis. Accordingly, the details of 'as received' GCV of coal at track hopper for the month of October, 2016, furnished by the petitioneris as under:

As received GCV of coal at track hopper for the month of October, 2016	
Date of Sampling	As received GCV
13.10.2016	4161
14.10.2016	4129
15.10.2016	4377
16.10.2016	4302
17.10.2017	4070
Average GCV of coal	4208

163. The respondent, KSEBL vide affidavit dated 7.11.2016 has submitted that the petitioner has been adopting GCV ranging from 3895.82kCal/Kg to 4240.11 kcal/Kg in the calculation of Energy Charges for the period from December, 2015 to November, 2016, without any supporting documents along with monthly bills. It has also submitted that the petitioner has arrived at a methodology for measuring 'as received' GCV and the GCV so measured is higher than the values adopted by the petitioner for claiming energy charges from the beneficiaries. Accordingly, it has stated that the petitioner may be requested to adopt the average GCV of coal measured at 4208 kcal/Kg retrospectively from December, 2015 for calculation of energy charges. The respondent has added that the petitioner may be directed to revise the energy billed with 'as received' GCV of 4208 kcal/Kg retrospectively and reimburse the additional amount recovered to the beneficiaries.

164. The matter has been examined. The issue of "as received" GCV of coal for computation of Energy Charges was challenged by NTPC and other generating companies through Writ petitions filed before the High Court of Delhi. The Hon'ble Court had directed the Commission to decide the



place from where the sample of coal should be taken for measurement of GCV of coal on as received basis and the Commission by order dated 25.1.2016 in petition no. 283/GT/2014 decided the same as under:

“58. In view of the above discussion, the issues referred by the Hon’ble High Court of Delhi are decided as under:

(a) There is no basis in the Indian Standards and other documents relied upon by NTPC etc. to support their claim that GCV of coal on as received basis should be measured by taking samples after the crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.

(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part1/Section1)-1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in accordance with the procedure prescribed in IS 436(Part1/Section1)-1964 which has been elaborated in the CPRI Report to PSERC.

165. The petitioner has claimed Energy Charge Rate (ECR) of 240.60 paise/kWh based on the weighted average price, GCV of coal (as fired basis) and Oil procured and burnt for the preceding three months. The petitioner has however not placed on record the GCV of coal for the preceding three months on ‘as received’ basis, in compliance with the directions of the Commission that the measurement of GCV of coal on ‘as received’ basis shall be taken from the loaded wagons at the unloading point either manually or through the Hydraulic Augur, in order dated 25.1.2016. We take serious note of the fact that despite our order dated 25.1.2016, the petitioner instead of taking steps to put in place a system for measurement of GCV of coal on ‘as received basis’ till date, has prayed for relaxation to allow the petitioner to continue to perform the coal sampling from track hopper/ crusher outlet for measurement of “as received” GCV of coal. We are not convinced with the submissions of the petitioner. Accordingly, we are not inclined to relax the directions in order dated 25.1.2016 and do not allow the measurement of coal from crusher outlet/ track hopper, as prayed for by the petitioner. We however direct the petitioner to place on record the GCV of coal for the preceding three months on ‘as received’ basis in terms of the directions contained in order dated 25.1.2016, at the time of truing-up of tariff of the generating station for 2014-19 in terms of Regulation 8 of the 2014 Tariff Regulations. The ‘as received GCV’ furnished by the petitioner for the few days of the month of October, 2016 for which sample is taken from the track hopper cannot



be considered 'as received' GCV of coal since the computation for fuel components in the working capital is undertaken based on the preceding three months i.e. for the month of January, 2014, February, 2014, and March, 2014. Also, the sample taken from track hopper is not in compliance with the Commission order dated 25.1.2016 in Petition No. 283/GT/2014, which specify that the measurement of GCV of coal on 'as received' basis shall be taken from the loaded wagons at the unloading point either manually or through the Hydraulic Augur.

166. Keeping in view that the present petition cannot be kept pending in the absence of GCV of coal on 'as received' basis, we decide to compute the fuel components and the Energy charges in the working capital, by provisionally considering the GCV of coal on 'as billed' basis and allowing an adjustment for total moisture as per the formula given as under:

$$\frac{\text{GCV} \times (1 - \text{TM})}{(1 - \text{IM})}$$

Where: GCV= Gross Calorific value of coal
 TM=Total moisture
 IM= Inherent moisture

167. The cost for fuel components in working capital have been computed at 83% NAPAF for the years 2014-15, 2015-16 and 2016-17 and at 85% NAPAF for the year 2017-18 and 2018-19 and based on 'as billed' GCV of coal and price of coal procured and secondary fuel oil (HFO) for the preceding three months from January, 2014 to March, 2014 as under:

	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal for stock- 30 days	10458.70	10487.35	10458.70	10710.71	10710.71
Cost of Coal for generation-30 days	10315.43	10315.43	10315.43	10563.99	10563.99
Cost of Coal for 2 months	20774.13	20802.78	20774.13	21274.7	21274.7
Cost of Secondary fuel oil 2 months	300.37	301.19	300.37	307.60	307.60

168. Similarly, the Energy Charge Rate (ECR) based on operational norms specified under 2014 Regulations and on 'as billed' GCV of coal for preceding 3 months i.e. January, 2014 to March, 2014 is worked out as under:

Sl. No.	Description	Unit	2014-19
1.	Capacity	MW	2 x 525
2.	Gross Station Heat Rate	Kcal/kWh	2375



3.	Aux. Power Consumption	%	5.75
4.	Weighted average GCV of oil (as fired)	Kcal/lit	9100
6	Weighted average GCV of Coal (as billed)	Kcal/kg	5006.98
7.	Weighted average price of oil(HFO)	₹/KL	47213
8.	Weighted average price of Coal	₹/MT	3472.42

169. The GCV of coal as computed above shall be adjusted in the light of the GCV of coal on 'as received basis' computed by the petitioner as per our directions in order dated 25.1.2016 in Petition No. 283/GT/2014 of NTPC in respect of Kahalgaon STPS which *inter alia* reads as follows:

"We are unable to accept the contention of NTPC and APP that the only purpose of adopting measurement of GCV as on received basis is to avoid the losses which occur during stocking and handling upto the boiler on account of self-ignition, windage and spillage etc. The purpose of adopting measurement of GCV on as received basis was to introduce transparency and accuracy for computation of energy charges in a just, fair and equitable manner so that end consumers are not unduly burdened."

170. Energy charges for two months on the basis of billed GCV of coal for the purpose of Interest on working capital have been worked out as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
21074.50	21103.97	21074.50	21582.30	21582.30

Maintenance Spares

171. The petitioner has claimed maintenance spares in the working capital as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
3360.00	3572.00	3797.00	4036.00	4290.00

172. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for maintenance spares @ 20% of the operation and maintenance expenses. As specified in Regulation 29 (2) of the 2014 Tariff Regulations, maintenance spares @ 20% of the operation and maintenance expenses, including water charges, is allowed as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
3549.24	3761.44	3986.04	4225.44	4479.64

Receivables

173. 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 - for two months	16089.17	17266.40	17528.41	17324.71	18094.59
Variable Charges – for two months	21074.50	21103.97	21074.50	21582.30	21582.30
Total	37163.67	38370.37	38602.91	38907.01	39676.89

O & M Expenses (1 month)

174. O&M expenses for one month claimed by the petitioner for the purpose of working capital are as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
1400.00	1488.00	1582.00	1682.00	1788.00

175. Based on the O&M expense norms specified by the Commission, the O&M expenses for one month are allowed as under:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
1478.85	1567.27	1660.85	1760.60	1866.52

Rate of interest on working capital

176. Clause (3) of Regulation 28 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.”

177. 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. Interest on working capital has been computed as under:

178. Necessary computations in support of interest on working capital are appended below:

(₹ in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of coal for stock- 1 month	10458.70	10487.35	10458.70	10710.71	10710.71
Cost of coal for generation- 1 month	10315.43	10315.43	10315.43	10563.99	10563.99
O&M expenses – 1 month	1478.85	1567.27	1660.85	1760.60	1866.52
Cost of secondary fuel oil – 2 month	300.37	301.19	300.37	307.60	307.60
Maintenance Spares	3549.24	3761.44	3986.04	4225.44	4479.64
Receivables Fixed charges -2 months	16089.17	17266.40	17528.41	17324.71	18094.59
Receivables Variable charges -2 months	21074.50	21103.97	21074.50	21582.30	21582.30



Total	63266.25	64803.04	65324.29	66475.34	67605.34
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	8540.94	8748.41	8818.78	8974.17	9126.72

179. Accordingly, the annual fixed charges approved for the generating station for the period from 2014-19 is summarized as under:

	<i>(₹ in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	25265.70	26426.14	26695.60	26695.60	26695.60
Interest on Loan	29533.45	28837.76	26602.11	23835.06	20678.02
Depreciation	15448.74	20778.91	23123.78	23316.25	29669.00
Interest on Working Capital	8540.94	8748.41	8818.78	8974.17	9126.72
O&M Expenses	17746.18	18807.18	19930.18	21127.18	22398.18
Total	96535.02	103598.40	105170.45	103948.26	108567.52

180. The petitioner shall compute and claim the energy charges on month to month basis from the beneficiaries based on the formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations read with Commission's order dated 25.1.2016 in Petition No. 283/GT/2014 of NTPC in respect of Kahalgaon STPS.

181. The Commission in order dated 19.2.2016 in Petition No. 33/MP/2014 (TPDDL V NTPC) had directed NTPC to introduce helpdesk to attend to the queries of the beneficiaries with regard to the Energy Charges. Accordingly, in terms of the said order, contentious issues, if any, which arise regarding the Energy Charges in respect of this generating station, should be sorted out with the beneficiaries at the Senior Management level.

Application filing fees and Publication Expenses

182. The petitioner has sought reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The petitioner has deposited the filing fees of ₹9624561/- for the period 2014-19 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The petitioner vide affidavit dated 29.1.2016 has submitted that it had made publication of the said tariff petition in the newspapers and has enclosed copies of the same. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 5.1.2016 in



Petition No. 232/GT/2014, we direct that the petitioner shall be entitled to recover pro rata, the filing fees for the period 2014-17 and the expenses incurred on publication of notices directly from the respondents, on production of documentary proof.

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

184. Petition No. 152/GT/2015 is disposed of in terms of the above.

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

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

-Sd/-
(A. K. Singhal)
Member

