CENTRAL ELECTRCITY REGULATORY COMMISSION
NEW DELHI

Petition No. 221/GT/2013

Coram:
Shri Gireesh B. Pradhan, Chairperson
Shri M. Deena Dayalan, Member
Shri A.K. Singhal, Member

Date of Hearing: 06.03.2014
Date of Order: 01.10.2014

In the matter of

Revision of annual fixed charges of SUGEN Power Plant (1147.5 MW) of Torrent Power Limited for the period from the date of commercial operation to 31.3.2014-Truing up of tariff determined by order dated 11.1.2010 in Petition No. 109/2009

AND

In the matter of

Torrent Power Ltd
Torrent House, Off Ashram Road,
Near Income Tax Circle,
Ahmedabad - 380009 …**Petitioner**

Vs

1. Torrent Power Ltd
(Ahmedabad Distribution)
Electricity House, Lal Darwaja,
Ahmedabad – 380001

2. Torrent Power Ltd
(Surat Distribution)
Torrent House, Station Road,
Surat – 395003

3. PTC India Ltd.
2nd floor, NBCC Tower,
Bhikhaji Cama Place,
New Delhi – 110066

4. Madhya Pradesh Power Management Co. Ltd.
Shakti Bhavan, Vidyut Nagar, Jabalpur – 482008 …**Respondents**

Parties present

Shri Jayesh Desai, TPL
Shri A.K. Ghosh, TPL
Shri Vinod Khanna
Shri R.S. Negi
Shri Ravin Dubey, Advocate, MPPMCL
Shri Ajasra Gupta, MPPMCL

ORDER

This petition has been filed by the petitioner, Torrent Power Ltd, for revision of annual fixed charges in respect of SUGEN Power Plant (1147.5 MW) ('the generating station') from date of commercial operation to 31.3.2014 in terms of the proviso to Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 ('the 2009 Tariff Regulations').

2. The generating station consist of 3 Units/Blocks of 382.5 MW each module having advance class gas turbine (Siemens make) along with associated Waste Heat Recovery Boilers (WHRB), generator with single shaft configuration. The actual dates of commercial operation of the different modules of the station are as under:

Block	COD
Block-I0	19.7.2009
Block-20	28.7.2009
Block-30	15.8.2009

3. Petition No.109/2009 was filed by the petitioner for approval of tariff of the generating station for the period from the date of commercial operation of Block 10 (first block) i.e from 19.7.2009 to 31.3.2014 and the Commission vide its order dated 11.1.2010 had approved the tariff for the generating station for the said period considering the capital cost of ₹96316.00 lakh as on 19.7.2009, ₹192256.00 lakh as on

28.7.2009 and ₹287706.34 lakh as on 15.8.2009. The annual fixed charges approved by the said order dated 11.1.2010 is as under:

(₹in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	**28.7.2009 to 14.8.2009**	**15.8.2009 to 31.3.2010**				
Return on Equity	5050.97	10082.22	15179.11	15490.90	15711.38	15711.38	15711.38
Interest on Loan	6891.24	13730.41	20188.52	19366.07	18172.57	16698.09	15177.54
Depreciation	4936.47	9853.66	14835.01	15139.73	15355.21	15355.21	15355.21
Interest on Working Capital	2981.17	5960.45	8934.49	8962.55	9033.63	9058.10	9087.18
O&M Expenses	10212.75	20425.50	30638.25	31108.73	32141.48	33174.23	34057.80
Total	**30072.60**	**60052.24**	**89775.37**	**90067.98**	**90414.27**	**89997.00**	**89389.11**

4. The petitioner in the present petition seeks revision of the annual fixed charges in accordance with clause (1) of Regulation 6 of the 2009 Tariff Regulations, due to impact on account of variation in additional capital expenditure during the years 2009-10 and 2010-11 allowed vide order dated 11.1.2010 on projected basis. Regulation 6 (1) 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."

5. Accordingly, based on the capital cost of ₹289245.34 lakh as on 15.8.2009, the annual fixed charges claimed by the petitioner vide affidavit dated 11.9.2013 is as under:

(₹in lakh)

	2009-10 (15.8.2009 to 31.3.2010)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Return on Equity	16203.73	17057.09	17369.23	17494.82	17705.70
Interest on Loan	20248.23	19333.59	18535.99	19392.61	17355.13
Depreciation	15031.37	15263.40	15527.72	15640.00	15640.00

Interest on Working Capital	8961.14	8997.06	9079.32	9157.32	9180.02
O&M Expenses	30638.25	31108.73	32141.48	33174.23	34057.80
Total	**91082.72**	**91759.86**	**92653.73**	**94858.98**	**93938.66**

6. The matter was heard on 6.3.2014 and the Commission while reserving its order in the petition, directed the petitioner to submit certain information and the petitioner vide its affidavit dated 20.3.2014 has filed the required information. Subsequently, the petitioner vide its affidavit dated 20.5.2014 revised the capital cost of the generating station without any changes to the annual fixed charges claimed as above. The revised capital cost claimed by the petitioner is as under:

(₹ in lakh)

	2009-10 (15.8.2009 to 31.3.2010)	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Opening Capital Cost	287709.10	290412.75	296648.59	301071.52	301071.52
Projected / Actual Additional capital expenditure	2703.65	6235.84	4422.93	0.00	0.00
Closing Capital Cost	290412.75	296648.59	301071.52	301071.52	301071.52
Average Capital Cost	289060.93	293530.67	298860.06	301071.52	301071.52

7. Reply to the petition has been filed by the Respondent No.4. Madhya Pradesh Power Management Company Ltd and the petitioner has filed its rejoinder to the said replies. The petitioner has also filed additional information as directed by the Commission.

Capital Cost

8. As against the opening capital cost of ₹287709.10 lakh claimed by the petitioner in this petition as on COD of the generating station (15.8.2009), the petitioner had in Petition No. 109/2009 claimed amount of ₹287709.00 lakh (Capital cost of ₹243348.57 lakh plus IDC of ₹40825.59 lakh plus FC of ₹1736.84 lakh plus Notional IDC of ₹1798.00 lakh). The differential of Rs.0.10 lakh is on account of the rounding off error and the same has been adjusted to Capital cost before IDC (including notional IDC)

and FC. It is observed that the petitioner, in this petition has claimed tariff for the year 2009-10 as a whole and has not bifurcated the periods as on the COD of each block of the generating station. Considering the fact that the capital cost of ₹287709.00 lakh as claimed in this petition as on COD of the generating station (15.8.2009) is same as that claimed by the petitioner in Petition No.109/2009, the capital cost claimed as on COD of each blocks have been considered in this petition as under:

(₹in lakh)

	COD of Block 10 (19.7.2009)	COD of Block 20 (28.7.2009)	COD of Block 30 (15.8.2009)
Capital Cost before IDC & FC	81735.64	162935.47	243348.57
Add: IDC (other than notional)	13410.79	26973.68	40825.59
Add: Financing Charges	578.95	1157.89	1736.84
Capital Cost before Notional IDC	**95725.38**	**191067.05**	*** 285911.00**
Add: Notional IDC	590.62	1188.95	1798.00
Capital Cost claimed	**96316.00**	**192256.00**	**287709.00**

*auditor certified cash capital cost

9. As regard capital cost considered for the purpose of tariff, the various components of capital cost claimed by the petitioner have been considered and allowed as stated hereunder:

(a) **Capital cost before IDC & FC:** The capital cost as on COD of each blocks as claimed by the petitioner has been considered after allowing the differential rounding off value of ₹0.10 lakh as stated above.

(b) **IDC (other than Notional IDC)** –On scrutiny of the IDC calculations submitted by the petitioner, some adjustment entries have been observed which is over and above the claim based on applicable rates of interest on respective loans. No, proper explanation has been provided by the petitioner in respect of the same. Accordingly, the claim of the petitioner towards IDC has been adjusted and the IDC (other than notional IDC) allowed is as under:

(₹in lakh)

	COD of Block 10 (19.7.2009)	COD of Block 20 (28.7.2009)	COD of Block 30 (15.8.2009)
IDC (other than notional)	13410.79	26973.68	40822.97

(c) **Financing charges** as claimed by the petitioner has been allowed.

(d) **Notional IDC:** As regards the petitioner's claim for Notional IDC of ₹590.62 lakh, ₹1188.95 lakh and ₹1798.00 lakh as on date of commercial operation of Block 10, Block 20 and Block 30 respectively, there is no provision for allowing notional IDC under the 2009 Tariff Regulations. Hence, the same has not been allowed. However, in line with clause (a) of Regulation 7 of the 2009 Tariff Regulations, the admissible Normative IDC over and above the actual IDC (considering the quarterly debt-equity position corresponding to actual cash expenditure) works out to `308.18 lakh, ₹641.77 lakh and ₹1132.45 lakh as on date of commercial operation of Block 10, Block 20 and Block 30 and the same has been allowed.

10. Based on the above discussions, the capital cost with respect to the dates of commercial operation of each Block of the generating station is allowed as under:

(₹ in lakh)

	COD of Block 10 (19.7.2009)	COD of Block 20 (28.7.2009)	COD of Block 30 (15.8.2009)
Capital Cost before IDC & FC	81735.64	162935.47	243348.67
Add: IDC (other than notional)	13410.79	26973.68	40822.97
Add: Financing Charges	578.95	1157.89	1736.84
Capital Cost before Notional IDC	**95725.38**	**191067.05**	**285908.48**
Add: Normative IDC	308.18	641.77	1132.45
Capital Cost Allowed	**96033.55**	**191708.83**	**287040.93**

Additional Capital Expenditure

11. The break-up of the projected additional capital expenditure allowed vide order dated 11.1.2010 in Petition No. 109/2009 is as under:

(₹ in lakh)

Package	2009-10	2010-11	Total
Pipeline and associated systems with other works	150.00	1350.00	1500.00
Meters, IT Communication System, Security and Surveillance System	169.00	1241.00	1410.00
Non-EPC Civil Works including for Township and Colony etc	903.00	2708.00	3611.00
Payment of un-discharged liabilities towards EPC	1800.00	1507.00	3307.00
Miscellaneous Civil Work including boundary wall, irrigation system, other enabling works	323.00	484.00	807.00
Spares, EOH cost, site related cost for supervision [net]	65.00	870.00	935.00
IDC & FC	73.00	249.00	322.00
Total	**3482.54**	**8408.50**	**11892.00**

12. The petitioner's claim for actual additional capital expenditure vide affidavit dated 16.9.2013 is as under:

(`in lakh)

Package	2009-10	2010-11	Total
Pipeline and associated systems with other works	-	1639.00	1639.00
Meters, IT Communication System, Security and Surveillance System	121.24	1014.00	1135.24
Non-EPC Civil Works including for Township and Colony etc	-	4043.00	4043.00
Payment of un-discharged liabilities towards EPC	2956.77	1215.64	4172.41
Miscellaneous Civil Work including boundary wall, irrigation system, other enabling works	-	1239.00	1239.00
Spares, EOH cost, site related cost for supervision [net]	-	1022.00	1022.00
IDC & FC	-	-	-
Total	**3078.01**	**10172.64**	**13250.65**

13. The petitioner has submitted that the increase of ₹1358.65 lakh in the actual additional capital expenditure as against the projected additional capital expenditure allowed in order dated 11.1.2010 is on account of the fact that the projected additional capital expenditure claimed were based on the 2008-09 Price Level, and the cost had gone up substantially when the actual implementation had taken place during 2010-11. The petitioner has also submitted that major part of additional capital expenditure is towards Civil construction work, wherein the prices of inputs like cement, steel etc. have gone up by more than 40% (approx) and the petitioner had completed the said works with a variation of 11% (approx). The petitioner while pointing out that the cost per MW works out to ₹262.27 lakh/MW considering the actual additional capital expenditure, has submitted that the capital cost of the generating station, on consideration of the additional capital expenditure, is much lower than the cost of other contemporary projects. The petitioner has submitted that the current assessed Cost/MW of the project is lower than the "in principle approval" accorded by Commission and has prayed that the additional capital expenditure be allowed.

14. The petitioner has submitted that the actual additional capital expenditure incurred are in terms of Regulation 9(1)(i) and 9(1)(ii) of the 2009 Tariff Regulations, 2009 and the same are covered within the

original scope of work of the project. The petitioner has further submitted that the work for additional capital expenditure has been completed within the cut-off date of 31.3.2011 and hence the additional capital expenditure claimed may be approved.

15. The Commission during the proceedings held on 6.3.2014 directed the petitioner to submit the following additional information:

(i) Reconciliation statement of the additional capital expenditure during 2009-10, 2010-11, 2011-12 & 2012-13 with books of accounts, duly audited.

(ii) Details of the EOH cost included in the additional capital expenditure of ₹1022.00 lakh claimed during 2010-11, and

(iii) Reasons for actual O&M expenses being lesser than the O&M expenses approved by the Commission, with proper justification, if any.

16. In response, the petitioner vide affidavit dated 20.3.2014 has submitted the information. The respondent, MPPMCL vide its reply dated 13.5.2014 has submitted that in the absence of audited statement, no additional capitalisation may be allowed. It has also been pointed out that the petitioner may be directed to provide the audited statement to the respondents. We have considered the submissions of the parties. It is noticed that the petitioner vide its affidavit dated 20.05.2014 has revised its claim for additional capital expenditure without submitting the relevant revised Form-9 in support of this. The petitioner has also enclosed the Auditor Certified "Schedule of Fixed Assets" reflecting the position as on 1.4.2010, 31.3.2011 and 31.3.2012 respectively. The petitioner has also enclosed revised Form-11 as on 15.8.2009 (COD of station), 31.3.2010, 31.3.2011 and 31.3.2012 respectively. On scrutiny, it is noticed that the gross block shown at Form-11 as on 31.3.2011 and 31.3.2012 is at variance with the respective values as per Auditor Certified "Schedule of Fixed Assets". Also, the asset-wise breakup as considered in Form-11 is at variance with the respective values as per Auditor Certified "Schedule of Fixed Assets". It is further

observed that the revised Form-9A is inclusive of CWIP positions as well which should have been reflected in Form-9B. However, the petitioner has stated that the amount of un-discharged liabilities as on 15.8.2009 is ₹1900.01 lakh and in Form-9A, it is noticed that the un-discharged liabilities corresponding to the gross block as on 31.3.2010 and 31.3.2012 is ₹393.36 lakh and "nil", respectively. Thus, the discharge of liabilities during the period from 15.8.2009 to 31.3.2010 and for the year 2011-12 works out to ₹1506.65 lakh and ₹393.36 lakh respectively. On account of merger of data of the two forms (Form-9A and Form-9B) in one form namely, Form-9A, these discharges could have been ignored for the purpose of tariff computation. However, considering the fact that this would cause burden on the beneficiaries by way of additional interest when these discharges will be considered at the time of final truing-up of tariff of the generating station, these discharges have been considered now, subject to truing-up in terms of Regulation 6 (1) of the 2009 Tariff Regulations. However, the petitioner is directed to furnish additional documents along with the petition to be filed for truing-up of tariff for 2009-14 as shown below:

(i) Auditor certified Form-9A and 9B reflecting positions as on 15.8.2009, 1.4.2010, 1.4.2011, 1.4.2012, 1.4.2013 and 31.3.2014.

(ii) Auditor certified Form-11 reflecting positions as on 15.8.2009, 1.4.2010, 1.4.2011, 1.4.2012, 1.4.2013 and 31.3.2014, respectively.

(iii) Auditor certified statement showing allocation of Gross block and CWIP as per books of accounts of the petitioner, as on 31.3.2009, 31.3.2010, 31.3.2011, 31.3.2012, 31.3.2013 and 31.3.2014, to Transmission, Distribution & Generation (separately showing such break-up for SUGEN, UNOSUGEN and other generating plants) activities.

In addition to above, the petitioner is directed to submit on affidavit, the accounting treatment of normative IDC as carried out in the books of accounts duly certified by Auditor.

Additional Capital Expenditure after COD to Cut-off date

17. The petitioner has claimed actual additional capital expenditure of ₹13250.65 lakh from COD of the generating station till 31.3.2011 which includes expenditure of ₹1022.00 lakh for Spares, Equivalent Operating Hours (EOH) cost and site related cost for supervision. The petitioner by affidavit dated

20.3.2014 has submitted that the EOH cost included in the additional capital expenditure of ₹1022.00 lakh is ₹715.00 lakh during 2010-11. The respondent, MPPMCL has submitted that the EOH cost is not a component of capital expenditure and therefore may not be considered. We have considered the submissions of the parties. The provisions of Regulation 9(1) of the 2009 Tariff Regulations do not provide for consideration of expenditure/liabilities arising on account of consumption of Equivalent Operating Hours (EOH) under LTSA/LTMA agreement. Further, this expenditure for EOH under LTSA & LTMA agreement is towards Operation & Maintenance of the generating station and hence form part of the O&M expenses. Similar view has been taken by the Commission in respect of the claim of the petitioner towards EOH cost in Petition No.175/GT/2013 (determination of tariff of UNOSUGEN Gas Based Combined Cycle Power Project of the petitioner) and the same was disallowed by order dated 6.12.2013. In line with this decision, the expenditure of ₹715.00 lakh claimed towards EOH cost has been disallowed in the present case.

18. The actual additional capital expenditure of ₹12535.65 lakh (excluding the EOH Cost of ₹715.00 lakh) till 2010-11 mainly relate to deferred works or balance payments for works under the original scope of work. Moreover, these deferred works have been completed within the cut-off date of the generating station. The price escalation is minor and found reasonable, considering the fact that the projected expenditure for capitalisation was based on 2008-09 Price Levels and the work was actually implemented during 2010-11. In view of this, the expenditure incurred is found justified on prudence check and is accordingly allowed. The break-up of the additional capital expenditure which is found justified, subject to further reconciliation as per books of accounts is summarised as under:

(₹ in lakh)

Package	2009-10	2010-11	Total
Pipeline and associated systems with other works	0.00	1639.00	1639.00
Meters, IT Communication System, Security and Surveillance System	121.24	1014.00	1135.24
Non-EPC Civil Works including for Township and Colony etc	0.00	4043.00	4043.00
Payment of un-discharged liabilities towards EPC	2956.77	1215.64	4172.41
Miscellaneous Civil Work including boundary wall, irrigation system, other enabling works	0.00	1239.00	1239.00
Spares, site related cost for supervision [net]	0.00	307.00	307.00
IDC & FC	0.00	0.00	0.00
Total	**3078.01**	**9457.64**	**12535.65**

19. The additional capital expenditure as per books of accounts *vis-à-vis* expenditure claimed for the years 2009-10, 2010-11 and 2011-12 respectively is as under:

(₹ in lakh)

Sl. no		2009-10	2010-11	2011-12
1	Opening Gross Block as per audited balance sheet for the project (**A**)	285911.10	289008.11	292165.75
2	Capitalization of expenditure	3097.01	3215.68	7049.73
3	De-capitalization	0.00	(-) 58.04	(-) 439.07
4	Closing Gross Block as per audited balance sheet for the project (**B**)	289008.11	292165.75	298776.41
5	Net Additions (Capitalization) during the year C = (**B-A**) (as per books)	3097.01	3157.64	6610.66
6	Additions claimed by the petitioner (on cash basis) (**D**)	3078.01	10172.64	0.00
7	Difference (**C-D**)	19.00	(-) 7015.00	6610.66

20. The actual additional capital expenditure claimed by the petitioner has been reconciled with the gross block of the balance sheet. It is observed from the above table that there is variation in the actual additional capital expenditure claimed by the petitioner for the years 2009-10 and 2010-11 with the additional capital expenditure as per books of accounts. This is on account of shifting some portion of the capitalization to the year 2011-12 and also due to discharge of certain liabilities.

21. The petitioner has claimed additional capital expenditure of ₹3078.01 lakh in 2009-10 as against the expenditure of ₹3097.01 lakh as per books of accounts. It is observed that the expenditure of ₹3097.01 lakh includes un-discharged liability of ₹393.36 lakh. Accordingly, on cash basis, the additional capital expenditure as per books of accounts works out to ₹2703.65 lakh (3097.01-393.36) and the same is allowed.

22. The petitioner has claimed expenditure of ₹10172.64 lakh during 2010-11 as against the expenditure of ₹3157.64 lakh [₹3215.67 lakh (addition)-₹58.03 lakh (deduction)] as per books of accounts. The petitioner has submitted that out of the expenditure of ₹10172.64 lakh, the amount of ₹3215.67 lakh was capitalized during 2010-11 and the balance expenditure of ₹6957.00 lakh was in the Capital Work in Progress (CWIP) account which was capitalized during the 2011-12. In view of this, the claim of the petitioner for this expenditure during the year 2010-11 has not been allowed. However, the same is proposed to be allowed during the year 2011-12 as and when the same is actually capitalised by the petitioner. Accordingly, the actual additional capital expenditure of ₹3157.64 lakh has only been allowed during 2010-11.

23. The petitioner had not claimed any additional capital expenditure during 2011-12**.** However the petitioner has capitalized an expenditure of ₹6610.66 lakh [(₹7049.73 lakh (addition)–₹439.07 lakh (deduction)] as per books of accounts. Since the capitalisation of the expenditure of ₹6610.66 lakh during 2011-12 forms part of the expenditure of ₹10172.64 lakh claimed for 2010-11, the same has been allowed after deduction of the cost towards EOH cost. Accordingly, additional capital expenditure of ₹5895.66 lakh (6610.66-715.00) for the year 2011-12 has been allowed.

24. Based on the above discussions, the additional capital expenditure claimed and allowed for the years 2009-10, 2010-11 and 2011-12 is summarised as under:

(₹in lakh)

	2009-10	2010-11	2011-12	Total
Additional Capital Expenditure claimed	3078.01	10172.64	0.00	13250.65
Additional Capital Expenditure allowed	**2703.65**	**3157.64**	**5895.66**	**11756.95**

25. The total additional capital expenditure from COD of the generating station till 31.3.2012 as per books of accounts, after considering the de-capitalisation of ₹497.10 lakh works out to ₹12865.31 lakh (13362.42-497.10) while the claim of the petitioner is ₹13250.65 lakh. However, the additional capital expenditure of ₹11756.95 lakh has only been allowed after deduction of the EOH cost of ₹715 lakh. The petitioner by affidavit dated 20.5.2014 has submitted details of the break-up of the year-wise capital expenditure incurred , the year-wise assets created and the liability unpaid, duly certified by auditors. However, considering the gross block position as on COD of the generating station, Auditor Certified "Fixed Assets Schedule" and the discharges of liabilities as above, the additional capital expenditure approved for the purpose of tariff is as under:

(₹in lakh)

	2009-10 (15.8.2009 to 31.3.2010)	2010-11	2011-12	2012-13	2013-14
Closing Gross Block	289008.11	292165.75	298776.41	0.00	0.00
Less: Opening Gross Block	287811.11	289008.11	292165.75	0.00	0.00
Additional capital expenditure as per books	1197.00	3157.64	6610.66	0.00	0.00
Less: Un-discharged liabilities	0.00	0.00	0.00	0.00	0.00
Add: Discharges of liabilities	1506.65	0.00	393.36	0.00	0.00
Net Additional capital expenditure	**2703.65**	**3157.64**	**7004.02**	**0.00**	**0.00**
Less: EOH cost disallowed	0.00	0.00	715.00	0.00	0.00
Net Additional capital expenditure allowed	**2703.65**	**3157.64**	**6289.02**	**0.00**	**0.00**

Initial Spares

26. It is observed that the Commission vide its order dated 26.9.2007 in I.A. 80/2006 in Petition No.154/2005 had approved initial spares amount of ₹16741.00 lakh for advanced class turbines. The petitioner has capitalized initial spares amounting to ₹15073.00 lakh till the COD of the generating station (15.8.2009). Also, additional spares amounting to ₹935.00 lakh had been allowed on projection basis by order dated 11.1.2010 in Petition No. 109/2009, thereby totalling ₹16008 lakh towards initial spares. The initial spares, including site supervision cost, capitalized after COD upto the cut-off date works out to ₹307.00 lakh (1022.00-715), which is lesser than the projected additional spares of ₹935.00 lakh. Accordingly, the total initial spares capitalized works out to ₹15380.00 lakh (15073.00+307.00) and the same is within the limit specified by the Commission under Regulation 8 of the 2009 Tariff Regulations. In view of this, the cost of initial spares included in the additional capital expenditure has been allowed.

27. Accordingly, the capital cost approved (subject to truing-up) for the purpose of tariff for the period 2009-14 is as under:

(₹in lakh)

	2009-10			**2010-11**	**2011-12**	**2012-13**	**2013-14**
	19.7.2009 to 27.7.2009	**28.7.2009 to 14.8.2009**	**15.8.2009 to 31.3.2010**				
Opening Capital Cost	96033.55	191708.83	287040.93	289744.58	292902.22	299191.24	299191.24
Additional capital expenditure	0.00	0.00	2703.65	3157.64	6289.02	0.00	0.00
Closing Capital Cost	**96033.55**	**191708.83**	**289744.58**	**292902.22**	**299191.24**	**299191.24**	**299191.24**
Average Capital Cost	**96033.55**	**191708.83**	**288392.75**	**291323.40**	**296046.73**	**299191.24**	**299191.24**

DEBT-EQUITY RATIO

28. Regulation 12 of the 2009 Tariff Regulations provides as follows*:*

> "(*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."*

29. The Commission vide its order dated 11.1.2010 in Petition No. 109/2009 had considered the debt-equity ratio of 70:30 based on the debt-equity ratio of 60.59:39.41 (as on 15.8.2009). This debt-equity ratio of 60.59:39.41 was computed based on the capital expenditure position furnished by the petitioner (on accrual basis) which has since been revised by the petitioner (on cash basis) in terms of the provisions of the 2009 Tariff Regulations. Based on the revised actual cash expenditure details furnished in Form-14A, the actual debt-equity ratio as on 30.6.2009 (1.5 months prior to COD of the generating station) and on 30.9.2009 (1.5 months after COD of the generating station) works out to 64.58:35.42 and 56.76:43.24 respectively. This is within the normative debt-equity ratio of 70:30 specified under the above said regulations. However, since the petitioner has not furnished the cash expenditure position as

on COD of the generating station and in view of the fact that the details in Form-9A/9B submitted by the petitioner is found to be inadequate, the debt-equity of 70:30 has been considered at this stage. The same is subject to truing-up in terms of Regulation 6(1) of the 2009 Tariff Regulations.

RETURN ON EQUITY

30. In terms of Regulation 15 of the 2009 Tariff Regulations, Return on equity has been worked out considering the base rate of 15.5% and the applicable MAT rate for the respective years of the tariff period. Return on Equity has been computed and allowed as under:

(₹in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
Normative Equity - Opening	28810.07	57512.65	86112.28	86923.37	87870.67	89757.37	89757.37
Addition due to Additional capital expenditure	0.00	0.00	811.09	947.29	1886.71	0.00	0.00
Normative Equity-Closing	28810.07	57512.65	86923.37	87870.67	89757.37	89757.37	89757.37
Normative Equity - Average	28810.07	57512.65	86517.83	87397.02	88814.02	89757.37	89757.37
Base Rate for return on equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Applicable Tax Rate	16.995%	16.995%	16.995%	19.931%	20.008%	20.008%	20.961%
Rate of Return on Equity (Pre-tax)	18.674%	18.674%	18.674%	19.358%	19.377%	19.377%	19.610%
Return on Equity	**5379.99**	**10739.91**	**16156.34**	**16918.31**	**17209.49**	**17392.29**	**17601.42**

INTEREST ON LOAN

31. In terms of Regulations 16 of the 2009 Tariff Regulations, interest on loan has been worked out as mentioned below:

(a) Gross normative loan corresponding to 70% of admissible capital cost has been worked out to ₹67223.49 lakh as on 19.7.2009, ₹134196.18 lakh as on 28.7.2009 and ₹200928.65 lakh as on 15.8.2009.

(b) Net loan (opening) as on 19.7.2009 has been considered as gross loan, cumulative repayment of loan being 'nil'.

(c) Based on the information submitted by the petitioner it is noticed that for existing loans, after COD of the generating station, there are changes in rate of interest prior to the actual date of reset and the same is taken on record. The petitioner has not furnished the details of the date of drawls, the applicable rate of interest for loans drawn after the COD of the generating station. Further, the petitioner has claimed weighted average rate of interest of 10.27%, 10.29%, 10.53%, 11.97% and 11.86% for the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14 respectively. The weighted average rate of interest claimed is higher than those approved by the Commission in order dated 11.1.2010 in Petition No. 109/2009. Since, final truing-up of tariff of the generating station in terms of Regulation 6(1) of the 2009 Tariff Regulations is to be undertaken shortly, we allow the weighted average rate of interest as claimed by petitioner, subject to truing-up.

(d) Depreciation allowed for the period under consideration has been considered as repayment of loan.

(e) From the fixed assets schedule submitted by the petitioner, it appears that certain de-capitalisation have been effected during the years 2010-11 and 2011-12. Though the same has been considered for the purpose of additional capital expenditure, no adjustment has been made to the cumulative repayment on account of such de-capitalisation as the generating station is new and also no reason for such de-capitalisation during the initial years has been furnished by the petitioner.

32. The interest on loan by applying the weighted average rate of interest has been computed as under:

(₹ in lakh)

	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010	2010-11	2011-12	2012-13	2013-14
Gross Normative Loan	67223.49	134196.18	200928.65	202821.20	205031.55	209433.87	209433.87
Cumulative Repayment	0.00	122.15	609.83	9943.29	24999.74	40240.40	55268.08
Net Normative Loan – Opening	67223.49	134074.03	200318.82	192877.91	180031.81	169193.47	154165.79
Addition due to Additional capital expenditure	0.00	0.00	1892.55	2210.35	4402.32	0.00	0.00
Repayment of Normative Loan	122.15	487.68	9333.46	15056.45	15240.66	15027.68	15027.68
Net Normative Loan – Closing	67101.34	133586.35	192877.91	180031.81	169193.47	154165.79	139138.11
Normative Equity – Average	67162.41	133830.19	196598.37	186454.86	174612.64	161679.63	146651.95
Weighted Average Rate of Interest	10.27%	10.27%	10.27%	10.29%	10.53%	11.97%	11.86%
Interest on Loan	**6897.58**	**13744.36**	**20190.65**	**19186.21**	**18386.71**	**19353.05**	**17392.92**

DEPRECIATION

33. Regulations 17 of the 2009 Regulations provides for computation of depreciation in the following manner, namely:

"(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 3[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."

34. As stated, the asset-wise breakup as considered at Form-11 does not match with the respective values as per Auditor Certified "Schedule of Fixed Assets". Further, the gross block as on 31.3.2011 and 31.3.2012 exceeds the respective gross block as per "Schedule of Fixed Assets". As such, this differential value has been adjusted from the gross block as per Form-11 and the corresponding depreciation rate has been considered as 100% for the purpose of computing the weighted average rate of depreciation. As already stated, no adjustment has been made to the cumulative depreciation on account of de-capitalisation of assets considered for the purpose of tariff. For the purpose of computing depreciable value of freehold land has been considered as ₹2254.32 lakh. Depreciation has been worked out as under and the same is subject to truing-up:

(₹ in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
Opening Capital Cost	96033.55	191708.83	287040.93	289744.58	292902.22	299191.24	299191.24
Additional capital expenditure	0.00	0.00	2703.65	3157.64	6289.02	0.00	0.00
Closing Capital Cost	96033.55	191708.83	289744.58	292902.22	299191.24	299191.24	299191.24
Average Capital Cost	96033.55	191708.83	288392.75	291323.40	296046.73	299191.24	299191.24
Weighted Average Rate of Depreciation	5.1584%	5.1584%	5.1584%	5.1683%	5.1481%	5.0228%	5.0228%
Depreciable Value	84401.31	170509.06	257524.59	260162.17	264413.17	267243.23	267243.23

Remaining Depreciable Value	84401.31	170386.91	256914.76	250218.88	239413.43	227002.83	211975.15
Depreciation for the period	**122.15**	**487.68**	**9333.46**	**15056.45**	**15240.66**	**15027.68**	**15027.68**
Depreciation for the year	**4953.80**	**9889.12**	**14876.48**	**15056.45**	**15240.66**	**15027.68**	**15027.68**

Operation & Maintenance Expenses

35. The O & M expense norms considered by the Commission in order dated 11.1.2010 in Petition No. 109/2009 are as under:

(₹in lakh/MW)

	2009-10	2010-11	2011-12	2012-13	2013-14
LTSA-LTMA	17.18	17.18	17.22	17.18	17.18
O&M Cost (other)	9.52	9.93	10.79	11.73	12.5
	26.70	**27.11**	**28.01**	**28.91**	**29.68**

36. The O&M expenses approved by the Commission vide order dated 11.1.2010 are as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
LTSA-LTMA	13178.71	19714.05	19759.95	19714.05	19714.05
O&M Cost (other)	7302.753	11394.675	12381.525	13460.18	14343.75
Total	**20481.46**	**31108.725**	**32141.475**	**33174.23**	**34057.8**

37. The petitioner vide its affidavit dated 7.10.2013 has submitted the details of the actual O&M expenditure incurred for the period 2009-13 as under:

(₹in lakh)

	2009-10	2010-11	2011-12	2012-13	Total
LTSA/LTMA	12920	15483	15694	17371	61468
Other O&M	5659	9713	10492	8153	34017
Total	**18579**	**25196**	**26186**	**25524**	**95485**

38. As stated earlier, the Commission during the proceedings held on 6.3.2014 had directed the petitioner to furnish the reasons for actual O&M expenses being lesser than the O&M expenses approved by the Commission, with proper justification. The petitioner by its affidavit dated 20.3.2014 has furnished reasons which are summarised as under:

(i) Due to continuous reduction in availability of allotted domestic gas from 2010-11 onwards and unwillingness of the beneficiaries to off-take capacity available on R-LNG and due to scheduled/unscheduled outages, SUGEN plant operated for lower EOH during the period under reference than considered in the tariff order for determining the allowable O&M costs. As a result, certain periodic expenditure viz. Service milestones and related expenditure under the LTSA/LTMA contracts and O&M expenses towards Repairs & Maintenance account are deferred.

(ii) Based on the current position, this expenditure, covered within these allowable limits shall be incurred in the immediate future.

(iii) As per the submission dated 27th May 2013, the generating station had undergone scheduled outage for 74 days during the period 2009-10 to 2012-13 towards Minor Inspection1/2 and HGPI. The LTSA/LTMA cost allowed under Clause 60 of the tariff order includes cost on full year running basis. However the aggregate amount of LTSA/LTMA cost of ₹3.979 lakh which corresponds to the outage days have been reduced.

(iv) In consideration of allowing higher O&M expenses than the norms, the Commission had in the tariff order, reduced the incentive entitlement of SUGEN plant, by raising the plant availability factor threshold to 88% (versus the 85% as per Tariff Regulations) for claiming incentive for better plant availability. This was to offset the higher O&M costs associated with advanced class turbines against the efficiency gains resulting there from. SUGEN plant has claimed availability based incentive only on a higher bar of 88% for each of the said years. The aggregate incentive foregone in lieu of higher allowance of O&M costs for these years is ₹4.777 lakh.

(v) The LTSA cost may vary on year to year basis since it is dependent on other factors like commercial /payment terms under the agreement. However, based on the current gas availability scenario the gap over a period of 4 years under LTSA/LTMA cost for ₹2145.00 lakh is expected to be bridged up by the end of tariff period i.e. 31st March 2014. Based on this, O&M expenses may be allowed as per the tariff order dated 11.1.2010.

39. In response, the respondent MPPCL has submitted as under**:**

(a)The Commission vide its order dated 11.1.2010 in Petition No. 109/2009 was pleased to allow higher per MW O&M cost norms compared to those provided in Tariff Regulations 2009, by exercising its 'Power to relax' under Regulation 44. Now, the actual O&M expenditure figures are before this Hon'ble Commission and it may please be seen from the table below that the petitioner has earned net gain of about ₹214.26 crore during the period from July, 2009 to March, 2013 on account of relaxed O&M norms. This clearly tantamount to unjust enrichment of the petitioner at the cost of consumers.

	2009-10	2010-11	2011-12	2012-13	Total
Approved O&M norms (₹ in lakh/MW)	26.70	27.11	28.01	28.91	-
Normative O&M cost received by the petitioner (₹ in lakh)	20481.00	31108.73	32147.50	33174.22	116911.45
Actual O&M expenditure (₹ in lakh)	18579.00	25196.00	26186.00	25524.00	95485.00
Net gain (₹ in lakh)	1902.00	5912.73	5961.50	7650.22	21426.45

(b) That the petitioner has failed to give proper justification for the need for retaining excess O&M charges claimed as per relaxed norms.

(c) That the petitioner has admitted that because of less gas availability, costlier R-LNG and due to scheduled/unscheduled outages the SUGEN plant operated at lower EOH during the period under reference. As a result, (i) Certain service milestones and related expenditure under the LTSA/LTMA Contracts and (ii) O&M expenses towards Repairs and Maintenance accounts were deferred.

(d) The petitioner has tried to justify the retention of excess O&M expenditure on the basis of above vague conjectures and stated that "this expenditure shall be incurred in immediate future". This vague reasoning cannot be sustained and is liable to be rejected.

40. We have considered the submissions of the parties. It is observed that the actual O&M expenses incurred are less than the normative O&M expenses allowed and the reasons for the same are as under:

(a) The Long Term Service Agreement (LTSA) and the Long term Maintenance Agreement (LTMA) with the Original Equipment Manufacturer for Sugen project of the petitioner is for 12 years corresponding to Equivalent Operating Hours(EOH) of about 1,00,000 hours for each GT.

(b) The Commission had approved the normative O&M expense norm (in Rs/MW/Year) for LTSA/LTMA during 2009-14 based on the EOH of all the three Gas Turbines.

(c) Under LTSA/LTMA, periodic inspection such as Combustion, Hot Gas Path & Major Inspections is planned based on EOH. However, because of some loss of operating hours in this generating station for reasons such as reduction in availability of allocated domestic Gas, the unwillingness of beneficiaries to off-take capacity available on R-LNG and due to scheduled/unscheduled outages etc., the planned maintenance at the specified interval could not be undertaken. However, these inspections will be undertaken in subsequent period.

(d) The high availability and efficiency of the machines were guaranteed by the OEM based on these routine maintenance/replacements of critical components of GTs and Combustion chambers. The Commission had also taken cognizance of this high availability and efficiency guaranteed by the OEM and raised the bar of target availability for earning incentive from 85% to 88%. The petitioner will have to pay the cost of LTSA/LTMA as it has transferred the risk of any failure of machine to OEM and obtained guaranteed availability and efficiency of GTs.

41. In consideration of the above factors and since the petitioner will have to incur the remaining amount in the subsequent period, we are of the view that it would not be prudent to undertake truing-up of the O&M expenses based on actuals, as prayed for by the respondent, MPPMCL. Further, due to deferment of some of the periodic inspections, the repair & maintenance works of the generating station have also been deferred on account of which the actual O&M expenses (other than LTSA/LTMA) incurred for the generating station are less than the normative O&M expenses allowed. Accordingly, the normative O&M (LTSA/LTMA+Other O&M) expenses allowed by the Commission vide order dated 11.1.2010 in Petition No.109/2009 (as tabulated below) has been considered till the end of the tariff period i.e. upto 31.3.2014.

(₹ in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
O&M Expenses (annualized)	**10212.75**	**20425.50**	**30638.25**	**31108.73**	**32141.48**	**33174.23**	**34057.80**

Normative Annual Plant Availability Factor

42. The Normative Annual Plant Availability Factor (NAPAF) of 85% as considered in order dated 11.1.2010 in Petition No. 109/2009 has been considered for the purpose of tariff which shall be the basis

for recovery of full fixed charges. However, for the purpose of incentive, the NAPAF shall be 88% as stated in the said order dated 11.1.2010 in Petition No.109/2009.

Interest on Working Capital

43. The fuel cost as considered in order dated 11.1.2010 in Petition No.109/2010 has been considered for the purpose of tariff as under:

(₹ in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
Fuel Cost –1 month	5136.37	10272.75	15409.12	15409.12	15451.34	15409.12	15409.12

44. Maintenance spares as considered in the said order dated 11.1.2010 has been considered as under:

(₹ in lakh)

	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2009	2010-11	2011-12	2012-13	2013-14
Maintenance Spares (30% of O&M Expenses allowed above)	3063.83	6127.65	9191.48	9332.62	9642.44	9952.27	10217.34

45. The receivable component of working capital has been worked out as under, on the basis of two months of fixed and variable charges. For this purpose, the operational parameters and weighted average price of fuel as considered in the said order dated 11.1.2010 has been considered.

(₹ in lakh)

	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2009	2010-11	2011-12	2012-13	2013-14
Receivables - 2 months	15284.85	30554.20	45780.80	45829.57	45971.72	45817.74	45716.42

46. The O&M expenses for one month as allowed in the said order dated 11.1.2010 is allowed as under.

(₹ in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
O&M expenses - 1 month	851.06	1702.13	2553.19	2592.39	2678.46	2764.52	2838.15

47. SBI PLR of 12.25% has been considered in the computation for interest on working capital. Necessary computations in support of calculation of interest on working capital are given as under:

(₹ in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	28.7.2009 to 14.8.2009	15.8.2009 to 31.3.2010				
Fuel Cost – 1 month	5136.37	10272.75	15409.12	15409.12	15451.34	15409.12	15409.12
Liquid Fuel Cost – 1/2 month	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maintenance Spares @ 30% of O&M expenses	3063.83	6127.65	9191.48	9332.62	9642.44	9952.27	10217.34
O&M expenses - 1 month	851.06	1702.13	2553.19	2592.39	2678.46	2764.52	2838.15
Receivables – 2 months	15344.85	30674.50	45954.48	46027.66	46243.55	46499.72	46359.19
Total Working Capital	**24396.11**	**48777.03**	**73108.26**	**73361.79**	**74015.78**	**74625.62**	**74823.80**
SBI PLR as on 1.4.2009	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	**2988.52**	**5975.19**	**8955.76**	**8986.82**	**9066.93**	**9141.64**	**9165.92**

Annual Fixed Charges

48. The revised annual fixed charges for the period 2009-14 in respect of the generating station are summarized as under:

(₹in lakh)

	2009-10			2010-11	2011-12	2012-13	2013-14
	19.7.2009 to 27.7.2009	**28.7.2009 to 14.8.2009**	**15.8.2009 to 31.3.2010**				
Return on Equity	5379.99	10739.91	16156.34	16918.31	17209.49	17392.29	17601.42
Interest on Loan	6897.58	13744.36	20190.65	19186.21	18386.71	19353.05	17392.92
Depreciation	4953.80	9889.12	14876.48	15056.45	15240.66	15027.68	15027.68
Interest on Working Capital	2988.52	5975.19	8955.76	8986.82	9066.93	9141.64	9165.92
O&M Expenses	10212.75	20425.50	30638.25	31108.73	32141.48	33174.23	34057.80
Total	**30432.65**	**60774.08**	**90817.48**	**91256.51**	**92045.27**	**94088.88**	**93245.74**

Note: *(1) All figures are on annualized basis. (2) All the figures under each head have been rounded. The figure in total column in each year is also rounded. Because of rounding of each figure the total may not be arithmetic sum of individual items in columns.*

49. In all other aspects, the order dated 11.1.2010 shall continue to apply. The annual fixed charges allowed as above are subject to truing-up as per Regulation 6 (1) of the 2009 Tariff Regulations.

50. The difference in the annual fixed charges determined by order dated 11.1.2010 and those determined by this order shall be adjusted in accordance with Regulation 6(6) of the 2009 Tariff Regulations.

51. Petition No 221/GT/2013 stands disposed of in terms of the above.

Sd/-	Sd/-	Sd/-
(A. K. Singhal)	**(M. Deena Dayalan)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Chairperson**