MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION

5th Floor, "Metro Plaza", Bittan Market, Bhopal - 462 016

Petition No.34/2011

PRESENT:

Rakesh Sahni, Chairman

C.S. Sharma, Member

IN THE MATTER OF:

In the matter of tariff petition for approval of final Generation Tariff of 210 MW, Ext. Unit No. 5, Amarkantak Thermal Power Station (ATPS), Chachai.

M.P. Power Generating Company Ltd, Rampur, Jabalpur. **PETITIONER**

Vs.

1. **M.P. Power Trading Company Ltd., Rampur, Jabalpur**
2. **M.P. Poorv Kshetra Vidyut Vitaran Company Ltd., Jabalpur**
3. **MP Madhya Kshetra Vidyut Vitaran Company Ltd., Bhopal**
4. **MP Paschim Kshetra Vidyut Vitaran Company Ltd., Indore**
5. **M.P. Power Transmission Co. Ltd. Jabalpur**
6. **M.P. State Electricity Board, Rampur, Jabalpur**

RESPONDENTS

ORDER

(Passed on this 1st day of May, 2012)

1. The Madhya Pradesh Electricity Regulatory Commission (hereinafter called "the Commission" or "MPERC") after going through the petition submitted by the MP Power Generating Company Limited (hereinafter called "the Petitioner" or "Company" or "Generating Company" or "MPPGCL") and considering the documents available on record and the supplementary submissions made by the petitioner with supporting documents thereof, accepted the application with modifications, conditions and directions as herewith attached. The Commission has considered the orders issued by the Government of Madhya Pradesh (Energy Department) on 31st May, 2005 making the Transfer Scheme Rules effective from 1st June, 2005 (Order No. 3679/FRS/18/13/2002 dated 31st May, 2005 and subsequent orders. The Commission has also considered the final opening balance sheet of MPPGCL notified by GoMP on 12th June, 2008 since the audited accounts of the company referred in the petition are based on the final opening balance sheet.

2. MPPGCL filed the subject petition for approval of final generation tariff of 210 MW, extension Unit-5, Amarkantak Thermal Power Station (ATPS), Chachai for the period from 09/09/2009 (CoD) to 31/03/2012. The motion hearing in the matter was conducted on 21st June, 2011. The petitioner was directed to file a comprehensive reply to all the queries raised by the Commission during the course of motion hearing and communicated to the petitioner vide Commission's order dated 24th June, 2011. The petitioner filed its reply to all such queries on 30th July, 2011. On further scrutiny of the afore-mentioned supplementary submissions made by MPPGCL, the Commission observed that the information filed by the petitioner was still inadequate to admit and process the petition on the following grounds :

   (i) The petition was based on Chartered Accountant's certificate and not on audited accounts. The petitioner in earlier petition for determination of provisional tariff of the same unit submitted the Chartered Accountant's certificate certifying Rs.55.44 crores as revenue earned from sale of infirm power while this figure has now been changed to Rs.50.48 crores in the subject petition indicating a difference of about Rs.5 crores from the earlier certificate/filings. The petitioner stated that the charges earlier filed were provisional excluding Entry Tax, Education Cess and Water Charges but the petitioner could not authenticate this difference with supporting documents.

   (ii) Regarding capital expenditure as on CoD, the petitioner stated that the capital expenditure audited as on CoD is on accrual basis and the expenditure of Rs.42.45 crores was paid after CoD though the liability was created before CoD. The difference of Rs.92.93 crores for funding capital expenditure of Rs.1025 crores as on CoD and the break-up of change in revenue earned from sale of infirm power were not available in the chartered accountant's report submitted by the petitioner.

   (iii) The petitioner stated that the accounts of MPPGCL for FY 2009 and FY 2010 have been finalized and audited by statutory auditors and CA&G whereas the accounts for FY 2011 are in the process of auditing and shall be submitted to the Commission subsequently. It was further stated by the petitioner that reconciliation of certified capital expenditure with books of accounts is in progress.

(iv) The petitioner stated that the details of actual expenditure incurred up to scheduled CoD has not been earmarked and audited.

3. In view of the above, the petitioner was asked to reframe the petition fulfilling all shortcomings observed by the Commission and file the same by 31st October, 2011. It was also emphasized that the reframed petition should be based on the audited accounts of FY 2010-11, which were due by the end of September, 2011.

4. Accordingly, MPPGCL filed the subject petition on 31st December, 2011 under Section 62 of the Electricity Act, 2003 for determination of final tariff of 210 MW, Extension Unit-5 at Amarkantak Thermal Power Station, Chachai. The subject petition is now based on the Audited books of Accounts of MPPGCL for FY 2009-10 and FY 2010-11. The petitioner has also confirmed that the accounts of MPPGCL for FY 2009-10 and FY 2010-11 have been finalized and audited by the Statutory auditors and CA&G auditors. However, the figures filed for FY 2011-12 are on projection basis subject to true-up on completion of balance works of the project and finalization of accounts for FY 2011-12.

5. The Commission after detailed scrutiny of the financial data and operating parameters submitted by the petitioner and after considering the Commission's applicable Regulations in this regard, has determined the final generation tariff as per detailed order attached herewith.

6. The generation tariff determined by this order, in accordance with Section 62 of the Electricity Act, 2003, will be applicable w.e.f. 10th September, 2009 to 31st March, 2012. The petitioner must take steps to implement the Order after giving seven (7) days' public notice in accordance with clause 1.30 of MPERC (Details to be furnished and fee payable by licensee or generating company for determination of tariff and manner of making application) Regulations, 2004 and its amendments and raise its bills for energy supplied to the three Distribution Companies in accordance with the allocation made by the Government of Madhya Pradesh for the respective period.

7. A gist of the fixed charges and variable charges as filed by the petitioner and approved by the Commission through this order is given below :

Table :1 Cost of Generation filed in the petition

Particulars		FY 2009-10	FY 2010-11	FY 2011-12 (projected)
Fixed Cost				
Normative Net Generation	MU	791	1423	1427
Scheduled Generation	MU	712	1265	1427
Return on Equity (Pre Tax)	Cr.Rs	19.00	34.40	43.62
Interest and Financing Charges on Loan	Cr.Rs	49.73	83.51	94.59
Depreciation	Cr.Rs	28.03	51.92	55.40
O&M Expenses	Cr.Rs	30.39	37.71	33.79
Interest Charges on Working Capital	Cr.Rs	6.28	10.73	12.30
Cost of Secondary Fuel Oil	Cr.Rs	2.73	5.14	5.74
Total Fixed Cost	**Cr.Rs.**	**136.15**	**223.40**	**245.43**
	p/u	**191**	**177**	**172**
Variable Charges	**Cr.Rs**	**71.15**	**127.23**	**146.81**
	p/u	**99.9**	**100.6**	**102.9**
Other Charges				
MPERC Fee	Cr.Rs.	0.11	0.07	0.06
Cess	Cr.Rs.	0.85	1.56	1.41
Water Charges	Cr.Rs.	0.05	0.22	0.36
Rent rates & taxes	Cr.Rs.	0.01	0.03	0.03
Entry Tax	Cr.Rs.	0.19	0.09	0.09
Common expense	Cr.Rs.	0.38	0.85	0.85
Total of Other Charges	**Cr.Rs**	**1.58**	**2.80**	**2.80**
Total	**Cr.Rs**	**208.89**	**353.44**	**395.04**
Indicative Average Rate	**p/u**	**293**	**279**	**277**

8. The total annual capacity (fixed) charges approved by the Commission in this order is given below :

Table : 2 Total Annual Capacity (Fixed) Charges approved by the Commission

Sr. No.	Particulars	Unit	Allowed in this final tariff order		
			FY 2009-10	**FY 2010-11**	**FY 2011-12 (Projected)**
1	Return on Equity		33.21	33.84	34.55
2	Interest and Financing charges on Loan	Rs. Crs.	77.85	79.07	87.92
3	Depreciation	Rs. Crs.	43.04	41.99	44.03
4	Operation and Maintenance Expenses	Rs. Crs.	29.99	31.84	33.79
5	Cost of Secondary Fuel Oil	Rs. Crs.	4.91	5.14	5.74
6	Interest Charges on Working Capital	Rs. Crs.	10.97	10.68	11.66
7	**Total annual Capacity Charges**	Rs. Crs.	**199.96**	**202.55**	**217.69**
8	Days of operation	No.	203	365	365
9	Annual Capacity Charges (for 203 days in FY2009-10)	Rs. Crs.	**111.21**	**202.55**	**217.69**

9. The energy charge calculated on ex-bus are given below :

Table :3 Energy charges (variable charges)

	FY 2009-10	**FY 2010-11**	**FY 2011-12**
Rate of Energy Charge from Coal at ex-bus (Paise/kWh)	**99.12**	**99.78**	**102.07**

10. The petitioner is directed to recover the difference between the generation tariff provisionally determined by the Commission (vide order dated 6th July, 2010 and 18th March, 2011 in IA No.25/2010 and petition No.15/2010 respectively) and the tariff determined in this order in equal monthly instalments during FY 2012-13 from the Distribution Companies in the State. However, the billing of energy charges as determined above shall be subject to monthly adjustment of actual price and GCV of coal in terms of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 and its amendments applicable for the period in this order.

11. Ordered as above read with attached detailed reasons and grounds.

sd/-	**sd/-**
(C. S. Sharma) **Member (Eco.)**	**(Rakesh Sahni)** **Chairman**

Date: 1st May, 2012
Place: Bhopal

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CHAPTER 1

Background of the order

Introduction

1.1 This order relates to the petition No.34 of 2011 filed by the Madhya Pradesh Power Generating Company Limited (MPPGCL) for determination of final generation tariff for 210 MW Extension Unit-5 of Amarkantak Thermal Power Station at Chachai from 10th September, 2009. i.e. from the "date of commercial operation" to 31st of March 2012.

1.2 The Madhya Pradesh Electricity Regulatory Commission (hereinafter called "the Commission") issued MPERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2009 {RG-26 (I) of 2009} (hereinafter referred to as "the Regulations") for the new control period i.e. FY 2009-10 to FY 2011-12. These were notified in the official gazette on 8th May, 2009.

As background of the petition, MPPGCL submitted the following :

1.3 The petitioner is wholly owned company of Government of M.P engaged in generation of electricity in the State of Madhya Pradesh. It is a successor entity of erstwhile Madhya Pradesh State Electricity Board (MPSEB).

1.4 The Company has been incorporated as part of implementation of the power sector reform in M.P., initiated by the Government of MP. The Company has taken over the generation activities of MPSEB. The company while operating and maintaining its existing Units is also constructing new power plants for increasing generating capacity in the State of Madhya Pradesh.

1.5 The petitioner is having various power stations/projects in the state of Madhya Pradesh. Amarkantak Thermal Power Station (ATPS) is one such power station of the petitioner located at Chachai in Anuppur District of Madhya Pradesh. Earlier ATPS had four units with total capacity of 290MW (1x30 + 1x20 + 2x120) out of which unit no. 1 & 2 (1x30MW & 1x20MW) have been decommissioned on completion of their useful life. The petitioner has subsequently established the instant Thermal Generating Unit of 210 MW as ATPS Extension Unit No.5 to mitigate the severe power crisis in the state.

1.6 Administrative approval for setting up of the 210 MW additional unit at Amarkantak Thermal Power Station, Chachai was accorded by Government of Madhya Pradesh vide letter No.4630/F.3/4/13/99 dated 11/06/2002. GoMP vide letter dated 13/01/2011, has accorded approval to the revised project cost estimate of Rs.1242.14 Crores.

1.7 GoMP vide its notification dated 3rd June, 2006 provided that the petitioner will sell entire power generated by the Amarkantak Thermal Power Station to the Respondent 1 at a rate determined by the Commission. A Power Purchase Agreement to this effect was signed between MPPGCL and MP Tradeco on 29th November, 2006.

1.8 210 MW ATPS Extn. Unit-5, was synchronized on 16th June, 2008 and started generation w.e.f. 13th March, 2009. The date of Commercial Operation of Unit is 10/9/2009. The unit has supplied Infirm Power of 349.497 MU to the Grid, during the period from 13/03/2009 to 09/09/2009. The Commission had issued an order for recovery of the cost of Infirm Power, vide its order dated 15/09/2009. In accordance with the aforesaid order of the Commission, an amount of Rs.123.07 crores was billed for sale of Infirm Power. As per the audited books of accounts of MPPGCL, an amount of Rs.72.51 Crores was incurred as fuel expenses for generation of Infirm Power. As such, the net revenue earned from the sale of Infirm Power, after accounting for the fuel expenses, is Rs.50.56 Crores. This net revenue earned from the sale of Infirm Power has been deducted from the capital cost in accordance with the provision 19.1 of MPERC Tariff Regulations, 2009, for determination of tariff. Most of the EPC and Non-EPC works for the project have been completed except for dry fly ash handling system, ash water recovery system, other petty works related to CHP & DE/DS systems, ash bund, water proofing system of main plant & auxiliary buildings and other petty finishing works.

1.9 The petitioner had filed a petition (No.23/2010) on 30th April, 2010 for approval of provisional generation tariff for ATPS Unit No.5 for the control period from FY 2009-10 to FY 2011-12. Pending the aforesaid petition on account of several infirmities, the Commission, vide order dated 06/07/2010 in an Interlocutory Application No.25/2010 filed by the petitioner, fixed the total annual capacity charges of Rs.105.08 Crores for FY 2009-10 and Rs.185.90 Crores for FY 2010-11. The Commission provisionally determined the afore-mentioned charges and allowed the petitioner to recover 90% of the total capacity (Fixed) Charges till disposal of main petition (P-23/2010) subject to retrospective adjustment.

1.10 The Commission vide its order dated 19/11/2010 in Petition No.23/2010 directed the petitioner to file petition for final tariff of the project and decided as under:

(i) *"The provisional generation tariff has already been determined by the Commission in ad-interim ex-party order dated 6th July, 2010 based on the capital cost of Rs.932.17 Crores, which is the amount of actual payments made till CoD, and the design heat rate of the Unit (2300 kCal/kWh) as requested by the petitioner in the subject petition.*

(ii) The provisional tariff, as approved by the Commission is based on the admissibility of the capital cost and other claims as filed by the petitioner as per the Regulations.

(iii) The Commission does not find it reasonable to go for another provisional

tariff at this instant when the figures, as claimed by the petitioner have neither attained finality nor have been recorded in the statutory documents as per Regulations.

(iv) The petitioner should pursue completion of the audited financial statements incorporating all its claims as per the Regulations and file the petition for determination of final tariff of the project without waiting for cut off date.

(v) The processing fee already deposited with the subject petition shall be adjusted in the petition for final tariff in accordance with the MPERC (Fees, Fine and Charges) Regulation, 2010 as amended from time to time.

(v) The Commission would now determine the final tariff of the project as and when the firm and final capital cost duly approved by the State Government along with the audited financial statement are made available to the Commission by the petitioner."

1.11 Since the provisional tariff granted by the Commission was expiring on 31/03/2011 and the petitioner was not ready with the final tariff petition, a petition was filed by the petitioner (Petition No.15 of 2011) with the prayer to continue provisional tariff (granted for FY 2010-11) in FY 2011-12 or till final tariff is granted by the Commission. The Commission, vide its order dated 18/03/2011 allowed the petitioner to bill and recover the annual charges for ATPS Unit No.5 Chachai in FY 2011-12 on the basis of the annual charges approved by the Commission for FY 2010-11 vide Commission's Ad-Interim Ex-parte order dated 06/07/2010 in IA No.25/2010. This order is applicable up to 31/03/2012 or the date of applicability of Commission's order for final generation tariff of ATPS Extn. Unit No.5, whichever is earlier. The Commission also directed the petitioner to ensure filing of the petition for determination of final generation tariff for ATPS Extn. Unit No.5, by 15/05/2011 without any further delay.

1.12 In compliance to the Commission's directives, the petitioner vide letter dated 13/05/2011, filed the subject petition for determination of final generation tariff of ATPS Extn. Unit No.5 for the period from the CoD of the Unit till 31/03/2012. The case was listed for motion hearing on 21/06/2011 and subsequently the Commission passed an Order dated 24/06/2011. In its aforesaid order dated 24/06/2011, the Commission observed several information gaps and that the subject petition was required to be strengthened with some additional information along with relevant supporting documents. Accordingly, the Commission directed the petitioner to file a comprehensive reply on all the points mentioned in its aforesaid order by 30/07/2011.

1.13 The petitioner filed its reply vide letter dated 30/07/2011. On perusal of the information filed by the petitioner, the Commission observed that the information is still inconsistent and inadequate to admit and process the petition, on the grounds mentioned in its order dated 24th June, 2011. The Commission noted that it would not be proper to determine the final tariff of ATPS 210 MW Unit based on the Chartered Accountants certificate. The petitioner was asked to substantiate the capital cost of the project claimed in the petition with the audited accounts of MPPGCL. The petitioner was also asked to reframe the petition based on the numbers in the audited accounts of FY 2010-2011, and fulfilling the shortcomings observed by the Commission. Since the reconciliation of certified cost with the books of accounts and Power Station wise accounting was taking time, the petitioner, vide letter dated 24/10/2011, requested the Commission for time extension till 31st December, 2011 .

1.14 On 31st December, 2011, the petitioner has filed this reframed petition based on the numbers in the audited books of accounts of MPPGCL for FY 2009-10 and FY 2010-11, for approval of final tariff of 210 MW, ATPS Extension Unit-5 w.e.f. the date of commercial operation (CoD) up to the end of the tariff control period, 31/03/2012. It is mentioned in the petition that the figures for FY 2011-12 submitted in the petition are on projected basis subject to true-up of the same on completion of the balance works and on finalization of accounts for FY 2011-12.

1.15 The petition has been processed in accordance with the provisions under MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 and its applicable amendments.

Procedural history

1.16 The petitioner filed the subject petition on 31st December, 2011 in accordance with MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009. The petitioner has broadly submitted the following for consideration of the Commission :

(i) *"210 MW ATPS Extn. Unit-5, was synchronized on 16th June, 2008 and started generation w.e.f. 13th March, 2009. The date of Commercial Operation of Unit is 10/9/2009. The Unit has supplied Infirm Power of 349.497 MU in the Grid, during the period from 13/03/2009 to 09/09/2009.*

(ii) *Net revenue earned from the sale of Infirm Power, after accounting for the fuel expenses for infirm power generation, is Rs.50.56 Crores and the same has been applied for reduction in capital cost as on COD. As such the net capital expenditure towards the project which has been capitalized as on COD, as per the audited books of accounts, is Rs.956.69 Crores. This has been considered for tariff determination purpose.*

(iii) *Additional capital expenditure after COD and up to 31/03/2011, as per audited books of accounts is given as below:*

	Period		***Amount***
a.	*W.E.F. COD and up to 31/03/2010*	*:*	*Rs.122.44 Crs*
b.	*W.E.F. 01/04/2010 and up to 31/03/2011*	*:*	*Rs. 32.51*
	Total	***:***	*Rs.154.96 Crs.*

(iv) *The projected additional capital expenditure w.e.f. 01/04/2011 and up to the cut off date, i.e. 31/03/2012, is Rs.74.59 Crores,* ***without taking into account the amounts deducted towards LD and ERV/CDV.*** *Thus the total additional capital expenditure w.e.f. COD and up to the cut off date, 31/03/2012, is projected to be Rs.229.55 Crores and the completed project cost as of 31/03/2012 is now projected to be Rs.1186.24 Crores against the approved estimated cost of Rs 1242.14. The final decision in the matter of treatment of LD and ERV/CDV amounts deducted from BHEL's invoices shall be taken at the time of project closure.*

(v) *The projected additional capital expenditure w.e.f. 01/04/2011 and upto 31/03/2012 is within the original scope of work of ATPS extension Unit-5 and is in accordance with the Regulation 20.1 of the Tariff Regulations, 2009. It is submitted that the projected additional capital expenditure w.e.f. 01/04/2011 and upto 31/03/2012, estimated by the petitioner, may not be considered as the ceiling expenditure and that the petitioner may be allowed to claim/amend the impact of additional capitalization for revision of tariff, including revision in tariff after the cut off date.*

(vi) *It is further submitted that levies, taxes, duties, service tax, SLDC charges, water charges, etc, levied by the various authorities on the petitioner in accordance with law shall be billed to beneficiaries additionally on actuals. MPPGCL has not considered any tax liability for FY 2009-10 and FY 2010-11, while for FY 2011-12 Minimum Alternate Tax (MAT), including surcharge and cess, has been considered. In case, due to any change in Government policy or otherwise, if any liability of tax and duties arises for any Year of the control period, the same shall be charged extra.*

(vii) *CoD of 210 MW, Amarkantak Thermal Power Station Extn. Unit-5 is 10th September, 2009. As such the actual generation in FY 2009-10 was available only for 203 days. Accordingly, the performance parameters and other cost elements have been duly elaborated in different Chapters as enclosures to the petition, and based on these, the cost of generation works out as under:*

Table : 4 Generation Cost of 210 MW ATPS Chachai

Particulars		***FY 2009-10***	***FY 2010-11***	***FY 2011-12 (Projected)***
Normative Net Generation	*MU*	*791*	*1423*	*1427*
Scheduled Generation	*MU*	*712*	*1265*	*1427*
Return on Equity (Pre Tax)	*Cr.Rs*	*19.00*	*34.40*	*43.62*
Interest and Financing Charges on Loan	*Cr.Rs*	*49.73*	*83.51*	*94.59*
Depreciation	*Cr.Rs*	*28.03*	*51.92*	*55.40*
O&M Expenses	*Cr.Rs*	*30.39*	*37.71*	*33.79*
Interest Charges on Working Capital	*Cr.Rs*	*6.28*	*10.73*	*12.30*
Cost of Secondary Fuel Oil	*Cr.Rs*	*2.73*	*5.14*	*5.74*
Total Fixed Cost	***Cr.Rs.***	***136.15***	***223.40***	***245.43***
	p/u	***191***	***177***	***172***
Variable Charges	***Cr.Rs***	***71.15***	***127.23***	***146.81***
	p/u	***99.9***	***100.6***	***102.9***
Other Charges				
MPERC Fee	*Cr.Rs.*	*0.11*	*0.07*	*0.06*
Cess	*Cr.Rs.*	*0.85*	*1.56*	*1.41*
Water Charges	*Cr.Rs.*	*0.05*	*0.22*	*0.36*
Rent rates & taxes	*Cr.Rs.*	*0.01*	*0.03*	*0.03*
Entry Tax	*Cr.Rs.*	*0.19*	*0.09*	*0.09*
Common expense	*Cr.Rs.*	*0.38*	*0.85*	*0.85*
Total of Other Charges	***Cr.Rs***	***1.58***	***2.80***	***2.80***
Total	***Cr.Rs***	***208.89***	***353.44***	***395.04***
Indicative Average Rate	***p/u***	***293***	***279***	***277***

1.17 The petitioner has prayed the following in the petition :

a) *"Approve the final tariff of 210 MW, Amarkantak Thermal Power Station Extension Unit-5, for the period 10/09/2009 to 31/03/2012.*

b) *Allow the petitioner to raise Arrear Bills for the recovery on account of approved final tariff.*

c) *Permit additional recovery on account of Water Charges, Cess, Rent Rates and Taxes, Duties and Levies, Filing Fee, as and when paid to the Commission, Common expenses, publication expenses, Entry Tax on R&M, admissible Income tax as per "MPERC (Terms and Conditions of Generation Tariff) Regulations, 2009 {RG-26 (I) of 2009}", fringe benefit tax and any other tax, if payable, etc. on actual basis, over and above the fixed and variable charges.*

d) *Permit recovery of expenses understated / not considered in this petition at a later stage, if required.*

Public Hearing

1.18 In view of the supplementary submissions made by the petitioner, the Commission vide order dated 21st February, 2012 admitted the subject petition and directed the petitioner to publish the gist of the petition in English and Hindi newspapers for inviting comments/suggestions from stakeholders giving 21 days time for submitting their comments/suggestion. The public notice was published in the following news papers:

1 Central Chronical, Bhopal (English)
2 Swadesh,Gwalior (Hindi)
3 Dainik Nav Duniya, Bhopal (Hindi)
4 Alok, Rewa (Hindi)
5 Danik Bhaskar, Jabalpur (Hindi)
6 Raj Express, Indore (Hindi)

1.19 The Commission received no comments/suggestions from any stakeholder. The public hearing on the subject petition was held on 20th March, 2012 in the office of the Commission. None appeared on behalf of any respondent/stakeholder.

CHAPTER 2

Analysis of the petition

2.0 Introduction of the Project and status of Statutory clearances as submitted by the petitioner

2.1 Amarkantak Thermal Power Station (ATPS) is located at Chachai in Anuppur District of Madhya Pradesh. The site is situated at a distance of 12Kms from district Head Quarter Anuppur and the nearest railway station is Amlai at a distance of 8Km on the Katni-Bilaspur section. ATPS had existing two units with total capacity of 240MW (2x120). Government of Madhya Pradesh has accorded administrative approval for the setting up of 210 MW additional unit at Amarkantak Thermal Power Station, Chachai vide their letter No.4630/F.3/4/13/99 dated 11.06.2002.

2.2 The project was taken up after obtaining following requisite clearances:

(i) GoMP, Energy Department's letter dated 11th June, 2002 regarding Revised Administrative Approval of GoMP.
(ii) GoMP, Energy Department's letter dated 20th March, 2008 regarding approval of revised project cost estimate of Rs.1104.00 crores.
(iii) GoMP, Energy Department's letter dated 12th January, 2011 regarding approval of revised project cost of Rs.1242.14 crores.
(iv) Approval for supply of water by Department of Water Resources.
(v) Environmental clearance from MP Pollution Control Board.
(vi) Civil Aviation clearance from Airport Authority of India.
(vii) Approval of SLC for grant of linkage of coal from SECL.
(viii) GoMP approvals in support of invested equity in the project.

All above documents have been filed with the Commission.

2.3 The petitioner has also filed the following documents with the Commission :

(i) Auditor's Certificate in support of the final capital cost.
(ii) Documents in support of Benchmark Prime Lending Rate of SBI as on 1st April, 2009.
(iii) List of major orders placed for ATPS, Ext. Unit-5.
(iv) Copies of the Letter of Intent dated 30th September, 2004 places to M/s BHEL for supply of Plants and Equipments, Erection, Testing and Commissioning and Civil Architectural and Structural Steel works for installation separately.
(v) Copy of PFC letters for revision of interest rate.
(vi) Documents in support of the rate of coal and secondary fuel oil based on audited accounts.

3.0 Cost Analysis

3.1 Fixed cost

(A) Capital Cost

Approved Capital Cost Estimates:

The petitioner has submitted the following :

3.1.1 Initially the estimated completed cost of the project was envisaged as Rs.988 Crores based on the EPC cost negotiated and agreed with M/s BHEL. The negotiations were made by the Committee constituted by GoMP for the purpose. Government's approval to implement the project based on the project cost negotiated by the Committee was received vide Energy Department letter No.6298/13/2004 dated 29/10/2004. However, for the reasons elaborated below, the project cost estimate was revised to Rs.1104 Crores and the revised estimated project cost was approved by GoMP, vide No. 2109/2008/13 dated 20/03/2008. Subsequently the project cost estimate has been again revised to Rs.1242.14 Crores, reasons for which are elaborated below. GoMP, vide letter dated 12/01/2011 accorded approval to the revised project cost of Rs.1242.14 Crores.

Table : 5 **Cr. Rs.**

Particulars		GoMP Approved Cost Estimates		
SN		**Approved as on 29/10/2004**	**Approved as on 20/03/2008**	**Approved as on 12/01/2011**
1	Turnkey EPC cost	851.78	938.14	959.18
2	Non EPC cost		72.27	80.15
3	Land & RR	38.00	4.06	4.22
4	Overheads	18.31	9.05	29.79
5	IDC + Fin. Cost	79.89	80.48	168.80
6	**Total project cost**	**987.98**	**1104.00**	**1242.14**

3.1.2 The petitioner in Para 2.2, 2.3 & 2.4 has submitted the detailed reasons for revision in Project Cost Estimate from Rs.988 crores to Rs.1104 crores and from Rs.1104 crores to Rs.1242.14 crores. The petitioner also filed the copy of documents in support of the revisions in the project cost estimate from Rs.988 crores to Rs.1242.14 crores as approved from time to time by GoMP.

3.1.3 The petitioner has further submitted following in the petition :

(i) The Accounts of MPPGCL for FY 2009-10 and FY 2010-11 have been finalized and audited by the Statutory Auditors and CAG Auditors. Based on the audited books of accounts for FY 2009-10 and FY 2010-11, the cost/expenditure break up as on CoD and subsequent to CoD till 31/03/2011 based on audited books of accounts certified by the Chartered Accountant has also been enclosed with the petition as **Annexure- 10**.

(ii) The figures for FY 2011-12 submitted in the petition are on projected basis and the true-up for the same shall be done on completion of the balance works of the project and on finalization of accounts for FY 2011-12.

(iii) Regarding the revenue earned from sale of infirm power, the petitioner in Para 10 of the petition submitted that, as per the audited books of accounts of MPPGCL, an amount of Rs.72.51 Crores was incurred as fuel expenses for generation of Infirm Power. As such, the net revenue earned from sale of Infirm Power, after accounting for fuel expenses, is Rs.50.56 Crores. The petitioner in Para 18 of the petition further mentioned that this net revenue earned from the sale of infirm power (after accounting for the fuel expenses for infirm power generation) has been applied for reduction in capital cost as on CoD. In support of their claim, the petitioner has filed a certificate of Sr. Accounts Officer (ATPS, Chachai) for fuel cost during trial stage as **Annexure-11**. The details of amount recovered through infirm power charges as filed in the petition are reproduced below :

Table : 6

SN	Month	Power Injected (MUs)	Billing Amount (Rs.)
1	Mar-09 (from 13/03/2009)	9.450	27453990
2	Apr-09	53.416	201661038
3	May-09	64.323	199893549
4	Jun-09	52.782	185463432
5	Jul-09	73.197	242108191
6	Aug-09	60.756	228953354
7	Sep-09 (up to 09/09/2009)	35.573	145136583
	Total	**349.497**	**1230670137**
	Total Amount in Cr. Rs.		**123.07**

Start date of Infirm Power billing has been taken as 13/03/2009 as per the data made available by SLDC. The petitioner has also filed the copy of SLDC monthly statements in this regard.

(iv) The petitioner in the subject reframed petition has filed Rs.956.69 Crs. as the capital cost of the project (including IDC) as on CoD. It is further mentioned that the net capital expenditure towards the project which has been capitalized as on CoD, as per the audited books of accounts after accounting the revenue earned from sale of infirm power is Rs.956.69 Crores.

(v) The Commission has observed from the petition that the petitioner has provided the details of funding as on CoD for Rs.932.17 Crs only (Equity as Rs.220.40 Cr. & Loan as Rs.711.77 Cr.).

(vi) While going through the subject petition, it is observed that the net capital expenditure (deducting the revenue earn from the sale of infirm power on accounting of the fuel expenses for infirm power generation) as on CoD is now claimed as Rs.956.69 Cr. as against Rs.932.17 Cr. approved in provisional tariff order. The petitioner has mentioned that the projected additional capital expenditure, w.e.f. 01/04/2011 and upto 31/03/2012, is within the original scope of work of ATPS extension Unit-5 and is in accordance with the Regulation 20.1 of the Tariff Regulations, 2009. Details of capital cost up to CoD and additional capital expenditure up to cut-off date as filed by the petitioner is given as below :

Table : 7

Sr. No.	**Particular**	**Rs. in Cr.**
1	Project Cost as on CoD	956.69
2	Additional Capital expenditure from CoD to 31/03/2010	122.44
3	Cumulative Project Cost as on 31/03/2010	1079.14
4	Additional Capital expenditure From 01/04/2010 to 31/03/2011	32.51
5	Cumulative Project Cost as on 31/03/2011	1111.65
6	Projected Additional Capital expenditure From 01/04/2011 to 31/03/2012 (cut-off date)	74.59
7	Cumulative Project Cost as on 31/03/2012 (cut-off date)	**1186.24**

(vii) With regard to the projected additional capital expenditure for FY 2011-12, the petitioner stated that the projected additional capital expenditure w.e.f. 01/04/2011 to 31/03/2012, estimated in the petition, may not be considered as the ceiling expenditure and the petitioner may be allowed to claim/amend the impact of additional capitalization for revision of tariff after the cut-off date.

(viii) The year wise details of funding of project cost as on COD and additional capitalization up to cut off date as filed in the reframed petition is given as below:

Table : 8

Comparison of project funding		**Rs. in Crs.**		
S. No.	**Particulars**	**Equity**	**PFC Loan**	**Total**
1	Up to March 2004	0.3	0.00	**0.3**
2	During F.Y. 2004-05	0.97	55.05	**56.02**
3	During F.Y. 2005-06	56.28	38.9	**95.18**
4	During F.Y. 2006-07	79.3	152.47	**231.77**
5	During F.Y. 2007-08	77.44	249.32	**326.76**
6	During F.Y. 2008-09	5.36	196.8	**202.16**
7	During FY 2009-10 till COD	0.75	19.24	**19.99**
	Sub Total	**220.4**	**711.77**	**932.17**
8	During FY 2009-10, from COD to 31/03/2010	0	33.61	**33.61**
9	During FY 2010-11	3.02	16.26	**19.28**
10	During FY 2011-12 (Projected)	3.34	147.24	**150.56**
	Sub Total	**6.34**	**197.11**	**203.45**
	Grand Total	**226.76**	**908.88**	**1135.65**

(ix) The petitioner has also submitted a statement showing cumulative project funding of capital cost and additional capitalization as given below:

Table : 9

Comparison of Cumulative project funding							
Source of fund	**Till COD**	**In FY 2009-10 From COD to 31/03/2010**	**Cum. Funding till 31/03/2010**	**In FY 2010-11 01/04/2010 to 31/03/2011**	**Cum. Funding till 31/03/2011**	**Projected in FY 2011-12 01/04/2011 to 31/03/2012**	**Cum. Funding till 31/03/2012**
Equity	220.4	0	220.4	3.02	223.42	3.34	226.76
Loan	711.77	33.61	745.38	16.26	761.64	147.24	908.88
Total	**932.17**	**33.61**	**965.78**	**19.28**	**985.06**	**150.58**	**1135.65**

3.1.4 Regarding capital cost, the Commission vide order dated 24th June, 2011 sought following from the petitioner :

i. *"What were the reasons for delay in commissioning of the project?*
ii. *What were the reasons attributable to the contractor in case the delay was from the contractor's end?*
iii. *What inputs were to be made available by the petitioner to the contractor and the date by which those inputs were scheduled to be made available by the petitioner to the contractor? Also when those inputs were actually made available by the petitioner to the contractor?*
iv. *A copy of all correspondence between the contractor and the petitioner regarding delay in project execution be furnished."*

3.1.5 In response to the above issues, MPPGCL vide letter dated 30th July, 2011 submitted the following :

"The order for execution of the project was placed on M/s. BHEL on EPC Turn key basis. It was also decided to get the Civil works and coal handling plant executed through BHEL on cost plus basis. It was agreed that BHEL will undertake the activities of inviting tenders and finalization of vendors for these works. There was delay by BHEL in finalization of the Vendors. The details of delay in placing order for various packages and delay in achieving of project mile stones are annexed as Annexure 9 to 14.

The inputs required to be made available to BHEL to enable them execute the contract were as under:

a. <u>Construction Power</u>: As agreed, the construction power was to be made available to BHEL on 20th March 2005. However, since BHEL were not ready to commence site activities, they requested for 'Construction Power' only in Sept 2005, which was provided to them.

b. <u>Handling over of Leveled & Graded Land</u>: As agreed, the leveled & graded land for main Power Block area was to be made available to BHEL by 30th Jan 2005 which was made available on 10th March 2005. The order itself was placed by BHEL for MPB Civil works on 20th July 05 and the work commenced on 10th Aug05. Hence there was no delay on account of handing over of the land.

c. Construction Water: No specific date was agreed for this input. However, prior to placement of order, it was agreed that water for construction shall be taken by BHEL from the return canal, which was available very close to the site.

Copies of correspondence between the contractor and the petitioner regarding delay in execution of project are annexed as ANNEXURE 15."

3.1.6 The petitioner in Para 2.6 of the petition has mentioned the following :

"There was a clause in the contract agreement for deduction of Liquidated Damages from BHEL's invoices on delay of project attributable to them. An amount of Rs.45.84 Crores has been deducted towards LD from BHEL's dues which will be settled in due course of time. Besides an amount of Rs. 4.75 Crores has been retained as ERV/CDV which shall be freezed after reconciliation of accounts with BHEL prior to closure of contract(s). The final decision in the matter of treatment of LD and ERV/CDV deducted from BHEL's invoices shall be taken at the time of project closure and as such the completed project cost figure of Rs.1186.24 Crores, as on 31/03/2012, may change."

Provisions of the Regulation

3.1.7 Regarding Capital Cost, Clause 17.1 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 provides that,

"Capital cost for a Project shall include:

(a) the Expenditure Incurred or Projected to be incurred on original scope of work, 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 prudent check shall form the basis for determination of Tariff.

(b) capitalized initial spares subject to the ceiling norms as specified below:
(i) Coal-based/lignite-fired thermal generating stations - 2.5% of original Project Cost.
(ii) Hydro generating stations - 1.5% of original Project Cost.

Provided that where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost under first proviso to 17.2, such norms shall apply to the exclusion of the norms specified herein.

(c) additional capital expenditure determined under Regulation 20."

3.1.8 Regarding sale of infirm power, Clause 19 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 provides that,

"Infirm Power shall be accounted as Unscheduled Interchange (UI) and paid for from the regional / State UI pool account at the applicable frequency-linked UI rate:

Provided that any revenue earned by the Generating Company from sale of Infirm Power after accounting for the fuel expenses shall be applied for reduction in capital cost."

Commission's Analysis

3.1.9 The Commission observed following from the response/documents filed by the petitioner :

a) The order for the execution of the project was placed to M/s BHEL on EPC turn-key basis. The civil work and works related to coal handling plant were to be executed by BHEL on cost plus basis. There had been inordinate delays on part of BHEL in tendering and finalization of vendors for these works. There was delay by BHEL in finalization of vendors for various civil works. There is 4 to 12 months delay between schedule and actual date of order placement by BHEL.

b) It was also indicated that the BHEL delayed the Design and Engineering activities for the project mainly for the civil works. The detail about dates of award of contract and date of submission of first set of drawings by BHEL for different works shows that there was delay of 5 to 12 months. Similarly from the details of the date of LOI and date of start of civil work for different plants, a delay of about 5 to 22 months at BHEL's end is noticed.

c) The petitioner also mentioned the following efforts made for timely completion of the project :

- A joint Co-ordination committee was formed between MPPGCL and BHEL in Oct. 2004 for monthly review of progress of the project. Total 27 meetings were held up to CoD of the project.

- Total 22 meetings were also held at GoMP and GOI level for review the progress of the project and for timely completion of work.

- Number of letters were also written by Hon'ble Chief Minister to different Central Ministers and Hon'ble Prime Minister.

- Several correspondence made by the Energy Secretary to CMD, BHEL for timely completion of the project.

- The petitioner has submitted that the inputs like construction power and Leveled & Graded Land required to be made available by the petitioner to the contractor was provided on time as agreed by BHEL. Hence there was no delay on account of handing over of the construction power and land. With regard to the Construction water, prior to placement of order it was agreed that water for construction shall be taken by BHEL from the return canal.

3.1.10 On scrutiny of the submissions made by the petitioner in the revised/reframed petition, the petitioner vide Commission's letter dated 24th January, 2012 was asked to file clarification/additional submission on certain points related to capital cost and additional capitalization. The response of MPPGCL vis-à-vis the issue raised by the Commission is reproduced below :

i. Issue

"The actual capital cost filed in the petition as on CoD is Rs.956.17 Crs. after deducting the revenue earned from sale of infirm power as per the Regulation 19.1 while the funding of Rs.932.17 Crs. only (as on CoD through loans of Rs.711.77 Crs. and equity of Rs.220.40 Crs.) is shown in chapter 3.0 of the petition. The source of funding of the balance capital cost (Rs.956.69 Cr. – Rs.932.17 Cr. = Rs.24.52 Crs.) is not mentioned in the petition. The petitioner is required to clarify the source so that the balance amount may be treated accordingly for computation of return on equity and interest and finance charges".

MPPGCL Response

The Capital cost as on CoD, net of Infirm Power, is indicated in the petition as Rs. 956.69 Crore whereas the funding till COD is indicated as Rs. 932.17 Crore. The difference of Rs.24.52 Crore is because the funding of Rs. 932.17 Crores does not take into account the amounts retained as per the terms of the contract (a liability that finances difference of Rs. 24.52 crores).

ii. Issue

"The Return on Equity and Interest and Finance Charges for FY 2009-10 is claimed in the petition at the total capital cost of Rs.932.17 Crs. as on CoD while the depreciation has been claimed on the Gross block of Rs.956.69 Crs. as on CoD. The petitioner has also furnished break-up of estimated project cost with expenditure of Rs.956.69 Crs. as on CoD in Annexure-10 enclosed with the petition. The basis for considering different capital cost for afore-mentioned claim be clarified by the petitioner".

MPPGCL Response

The RoE and Interest & Finance charges for FY 2009-10 are claimed on the basis of funding of Rs. 932.17 crores as on CoD (which includes equity of 220.40 crores and loan component of Rs. 711.77 crores) and loan drawal of Rs. 33.61 crores during the period w.e.f. CoD to 31.03.2010. The RoE and Interest charges for the aforesaid period have not been claimed on the capital cost as per books of Account for the reasons that books of account are on accrual basis. As per the accounting principles the retained amount is the liability on the owners whereas the assets have been created worth Rs. 956.69 crore as on CoD and therefore they qualify for the purpose of depreciation. We have not claimed the RoE and Interest & Finance charges on the retained amounts because we have not paid this amount to the Contractor.

iii. Issue

"It is observed that the capital cost of Rs.956.69 Crs. as claimed in the petition is after adjustment of the net revenue of Rs.50.48 Crs. from sale of infirm power while the expenditure of Rs.956.69 Crs only is shown in Annexure-10 based on the figures of audited accounts. The petitioner is required to explain why the figure of Rs.50.48 Crs. adjusted against net revenue from sale of infirm power is not reflected in the break-up of total expenditure as on CoD furnished in Annexure-10".

MPPGCL Response

The capital cost of Rs.956.69 crores, as on CoD, is after duly adjusting the net revenue of Rs.50.56 crores earned through Infirm power generation. In this regard please find enclosed herewith a copy of the Journal Entry (JE) No.F34 6810539700 dated 31.03.2010 (Annexure-1, Pg.1) along with supporting working statements (Annexure-1, Pg.2 and Pg.3), for verification of treatment done in respect of net revenue from infirm power for reduction in the capital cost. The aforesaid Journal Entry is a part of the audited books of accounts. As can be seen from these documents, necessary treatment as per clause 19.1 of Regulations 2009, in respect of reduction of capital cost of the project as on CoD by the net revenue earned from infirm power generated from the subject Unit, after accounting for the fuel expenses, has been duly made in the audited books of accounts.

The total revenue from Infirm Power, which has been booked under account head 91.301 in the audited books of accounts, is Rs. 123.07 crores(refer item at sr. No. 35 of the JE). Fuel expenditure till CoD of 210 MW ATPS, Chachai, Extn. Unit No.5, which has been booked under account head 91.101 in the audited books of accounts of ATPS, is Rs. 77.81 Crores (refer item at Sr.34 of the JE). Out of the aforesaid fuel expenditure of Rs. 77.81 crores, Rs.72.51 crores has been spent during Infirm power Generation and Rs. 5.30 crores has been spent for start up fuel before trial run (refer Annexure-11 of our petition dated 31.12.2011). Thus the net revenue from infirm power, that has been duly accounted for reduction in the capital cost as on CoD, is Rs. 50.56 crores.

Also enclosed herewith is a copy of RAO, ATPS, Chachai letter dated 23.01.2012 which gives the details of an amount of Rs.2.4968 crores which has been booked against Land and Tree Plantation for 210 MW Extn. Unit at ATPS, Chachai, apart from the other fixed assets of Rs.954.1949 crores. This makes the total expenditure as on CoD equal to Rs.956.69 (954.1949 + 2.4968) crores, as mentioned in our petition dated 31.12.2011.

iv. Issue

"Since the break up of cost / expenditure field as Annexure-10 in the petition is based on the audited account of MPPGCL of FY 2010-11 therefore, MPPGCL is required to file the audited account for FY 2010-11 for proper scrutiny of the petition".

MPPGCL Response

The audited account for FY 2010-11 has been submitted to the Hon'ble Commission vide this office letter No.07-12/CS:MPPGCL/85 dated 23.01.2012.

v. Issue

"The break up of actual capital cost as on CoD and also as on cut-off date is not furnished in Table 2.1.1 of the petition (showing component-wise details of GoMP approved cost estimate). The petitioner is required to provide the break up of actual capital cost as on CoD and also as on cut-off date in the same manner as provided in Table 2.1.1.of the petition".

MPPGCL Response

The capturing and recording of costs in the books of accounts of MPPGCL is as per the accounting policy and chart of accounts. This system has been inherited from the erstwhile MPSEB and is prevailing in more or less all successor companies of MPSEB. This accounting system is not mapped one to one to the component wise breakup of cost desired as per table 2.1.1. However, the cost recorded as on CoD, which has been drawn from the audited books of accounts, is indicated as a whole in the table given below:

Table : 10

S. No.	***Particulars***	***As per GoMP approved cost estimates dated 12.01.2011***	***Project cost as on CoD, as per books of accounts.*** ***(****Net of revenue from Infirm Power****)***
1.	*Turnkey EPC cost*	*959.18*	*789.36*
2.	*Non EPC cost*	*80.15*	
3.	*Land & RR*	*4.22*	
4.	*Overheads*	*29.79*	
5.	*IDC & FC*	*168.80*	*167.33*
6.	*Total*	***1242.14***	***956.69***

vi. Issue

"The details of additional capitalization with break up of works completed/capitalized up to CoD and after CoD till cut-off date with reference to original scope of works in the project may also be submitted".

MPPGCL Response

The details of works as per the original scope of works in the project are annexed (Annexure-2). However, the works completed as on CoD and after CoD till cut off date cannot be earmarked as it is an ongoing process. It is further submitted that the works till CoD and after CoD are as per original scope of works and nothing beyond that. Here it is submitted that the contract was awarded on BHEL on EPC turnkey basis which included Supply, Civil Works and the E&TC works for the project. Thus during the period up to CoD and subsequently progressive Civil & E&M Works of the project continued.

3.1.11 The Commission has noted the following from the submissions made by the petitioner :

(i) The break-up of capital cost for this unit as filed in Annexure-10 is duly certified by the Chartered Accountant wherein the figures are taken from the books of audited accounts of MPPGCL. However, the figures for asset additions indicated in the certificate do not tally with Schedule 5 of the Audited Accounts.

(ii) The expenditure as on CoD of this unit is recorded as Rs.956.69 crores out of total estimated project cost of Rs.1242.14 crores.

(iii) The additional expenditure from 10th September, 2009 to 31st March, 2010 and 1st April, 2010 to 31st March, 2011 is also recorded as Rs.122.44 crores and Rs.32.51 crores respectively in the same annexure.

(iv) The total cumulative expenditure till 31st March, 2011 is shown as Rs.1111.65 crores.

(v) The capital expenditure up to CoD is Rs.839.92 crores and the total IDC as on CoD is Rs.167.33 crores as mentioned in Form TPS-5a enclosed with the petition.

(vi) As mentioned by the petitioner, the figures regarding actual/projected additional expenditure as filed in Form TPS-5b and TPS-9 have been taken from the audited books of accounts of ATPS, Chachai MPPGCL.

(vii) It is mentioned in Form TPS-5b that the IDC amount in the project cost is Rs.167.33 crores as on CoD.

(viii) The petitioner has mentioned in Form TPS-5b that the figure of project cost as on CoD i.e. Rs.956.69 crores is after duly accounting revenue earned from infirm power of Rs.50.56 crores.

3.1.12 Since the petitioner has deducted Rs.45.84 crores and retained Rs.4.75 cores towards Liquidated Damage (LD) and ERV/CDV from BHEL's invoices as per clause in their contract agreement on delay of project attributable to BHEL therefore, the Commission has excluded these amounts from the net capital cost. Accordingly, the net capital cost as on CoD approved by the Commission in this tariff order is given below :

Table :11 Capital Cost as on CoD

Sr. No.	Particulars	Unit	Considered in final tariff order
1	Capital expenditure up to CoD excluding IDC	Rs. Crs.	839.92
2	IDC amount capitalized as per audited books of A/c	Rs. Crs.	167.33
3	Capital expenditure up to CoD including IDC (1 + 2)	Rs. Crs.	**1007.25**
4	Amount billed for sale of infirm power	Rs. Crs.	123.07
5	Expenditure on fuel for generation of infirm power	Rs. Crs.	72.51
6	Net revenue earned on A/c of sale of infirm power	Rs. Crs.	50.56
7	Capital cost as on CoD excluding revenue earn from sale of infirm power (3 - 6)	Rs. Crs.	**956.69**
8	Amount towards Liquidity damage and ERV/CDV recovered from BHEL	Rs. Crs.	50.59
9	**Net final capital cost (7 - 8)**	**Rs. Crs.**	**906.10**

3.1.13 The net final capital cost as on CoD, as determined above is Rs.906.10 Crs. The equity and loan components as on CoD are apportioned in the same proportion as considered in the petition for funding of Rs.932.17 Crs. as on CoD is given below:

Table :12 Equity & Loan as on CoD

Sr. No.	Particular	Unit	Actual funding	Funding Considered in respect to capital cost
1	Equity amount	Rs. Crs.	220.40	214.24
2	Loan amount	Rs. Crs.	711.77	691.87

Additional Capitalization

3.1.14 Clause 20.1 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 provides that,

"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 may be admitted by the Commission, subject to prudent check:

(a) Undischarged liabilities
(b) Works deferred for execution
(c) liabilities to meet award of arbitration or for compliance of order or decree of a court,
(d) Change in Law,
(e) Procurement of initial capital spares within the original scope of work, subject to the provisions of Regulation 17.1(b)

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

3.1.15 The petitioner has filed the auditor's certificate for year-wise capital expenditure subsequent to CoD and the cumulative project cost at the end of respective financial year as per the Audited books of Accounts for FY 2009-10 and FY 2010-11 in Annexure-10 of the petition. The petitioner has projected the additional capital expenditure in FY 2011-12 in the petition.

3.1.16 Since the petition has been filed for determination of final tariff for FY 2009-10 and FY 2010-11 therefore, the asset additions was compared with the respective Schedule 5 of the Audited Accounts of FY 2009-10 and FY 2010-11. On comparing the figures, following is observed:

(i) Schedule 5 of Audited Accounts of MPPGCL capture figures for asset addition for all the power stations under operation of MPPGCL on share basis.

(ii) The asset additions of 210 MW, Extension Unit-5 in subject petition are not categorically recorded in the balance sheets.

(iii) The asset additions for MPPGCL as a whole recorded in Schedule 5 of the Audited Accounts for FY 2009-10 and FY 2010-11 do not match with the figures filed for asset additions of 210 MW ATPS Unit-5 in the petition, if the station-wise break-up is taken from Asset Register.

3.1.17 With regard to the above issue, MPPGCL vide letter No.07-12/CS-MPPGCL/95/ATPS-210/340 dated 3rd April, 2012 has submitted the following clarifications:

(i) The capital expenditure actually incurred on the project as on 31-3-2010 as per audited books of accounts is Rs.1079.14 crores, out of which Rs.956.69 crores has been capitalized under the account code 10 (fixed assets), Rs.115.30 crores under account code 14 (CWIP) and Rs.7.14 crores under account code 22 (capital spares).

(ii) The actual expenditure incurred as on 31-3-2011 as per audited books of accounts is Rs.1111.65 crores, out of which Rs.1027.25 crores has been capitalized under the account code 10 (fixed assets), Rs.65.90 crores under account code 14 (CWIP) and Rs.18.51 crores under the account code 22 (capital spares).

The expenditure booked under the aforesaid three codes 10, 14 and 22 constitute the total capital costs incurred on the project on respective dates as mentioned above……….,

3.1.18 Since the petitioner has submitted that the additional capital expenditure as on 31st March, 2011 and projected additional capital expenditure up to 31st March, 2012 is within the original scope of work and is in accordance with Clause 20.1 of the Regulations, 2009 therefore, the Commission has considered the same with prudence check in this order. Accordingly, the figure of fixed assets capitalized only are considered in the order. The average capital cost in FY 2009-10 to FY 2011-12 is worked out as below :

Table: 13 Additional Capitalizations

Sr. No.	Particulars	Unit	Considered in this tariff order		
			FY 2009-10	FY 2010-11	FY 2011-12 (Projected)
1	Opening Capital Cost as admitted	Rs. Cr.	906.10	906.10	976.66
2	Addition during the year as per books of a/c	Rs. Cr.	0.00	70.56	21.07*
3	Closing capital cost	Rs. Cr.	906.10	976.66	997.73
4	Average Capital Cost	Rs. Cr.	906.10	941.38	987.20

*****Sum of actual funding of Rs.12.66 crores as informed by MPPGCL and the balance funding of previous year.

Project Funding

3.1.19 The Commission in above table has worked out the year wise additional capitalization up to cut-off date which is 31st March, 2012. Since the financial year 2011-12 was over therefore, the actual funding from loan and equity in FY 2011-12 was called from the petitioner. MPPGCL vide letter No..07-12/CS-MPPGCL/95/ATPS-210/412 dated 21st April, 2012 informed the following funding during FY 2011-12 :

Sr. No.	Particulars	Amount (Rs. Cr.)
1	Loan drawn	12.66
2	Equity drawn	00.00
	Total	**12.66**

3.1.20 Accordingly, the funding for FY 2011-12 is considered in this order. The petitioner has submitted the year-wise funding of loan and equity but the funding shown by the petitioner do not match with the year-wise additions claimed in the petition on account of the reasons mentioned in **Paras 3.1.16 to 3.1.18** of this order. However, for FY 2009-10 and FY 2010-11, the funding from loan and equity has been considered to match the year-wise asset additions admitted in this order. The total actual funding for FY 2009-10 to FY 2010-11 in this order is same as filed in the petition. The actual funding in FY2011-12 shall be considered while truing up exercise for this year.

3.1.21 Considering the funding of project through equity and PFC components subsequent to CoD based on the equity and loan amount considered by the Commission in **Table-12** of this order, the total funding of the project up to cut off date as considered by the Commission (after deducting the LD) is given as below :

Table: 14 (A) Actual year-wise Project Funding as filed by the petitioner

Sr. No.	Particular	Unit	Actual funding as filed		
			Equity	Loan	Total funding
1	Till CoD (10.09.2009)	Rs. Cr.	220.40	711.77	932.17
2	During FY09-10 after CoD	Rs. Cr.	0.00	33.61	33.61
3	During FY10-11	Rs. Cr.	3.02	16.26	19.28
4	During FY11-12 (Projected)	Rs. Cr.	0.00	12.66	12.66*
5	Total funding projected up to cut-off date	Rs. Cr.	223.42	774.30	997.72

*Actual as informed by MPPGCL vide letter dated 21st April, 2012.

Table: 14 (B) Year-wise Project Funding considered by the Commission

Sr. No.	Particular	Unit	Considered based on assets capitalization as per books of accounts		
			Equity	Loan	Total funding
1	Till CoD (10.09.2009)	Rs. Cr.	214.24	691.87	906.11
2	During FY09-10 after CoD	Rs. Cr.	0.00	0.00	0.00
3	During FY10-11	Rs. Cr.	8.20	62.35	70.55
4	During FY11-12 (Projected)	Rs. Cr.	0.98	20.08	21.06
5	Total funding projected up to cut-off date	Rs. Cr.	223.42	774.30	997.72

Return on Equity

3.1.22 It is stated by the petitioner that the project cost is being funded through debt-equity ratio of 80:20 which is well within the norms of 70:30 debt-equity ratio as per Regulation. The petitioner has claimed Return on Equity on the average Equity of Rs.220.40 Crs. in FY 2009-10 with further addition of Rs.3.02 Crs. and Rs.3.34 Crs. in FY 2010-11 and 2011-12 (projected) respectively. No tax has been paid and claimed in the petition for FY 2010 and FY 2011. However, the base rate has been grossed up with the Minimum Alternative Tax for FY 2012 (projected) in the petition.

3.1.23 Based on the year-wise opening and closing equity considered by the Commission in Table-14, the average equity for FY 2009-10 to FY 2011-12 has been worked out. The RoE is determined in this order by considering the base rate as per Regulation is given as below :

Table : 15 Return on Equity

Sr. No.	Particulars	Unit	Allowed in this tariff order		
			FY 2009-10	FY 2010-11	FY 2011-12 (Projected)
1	Opening equity eligible for return	Rs. Crs.	214.24	214.24	222.44
2	Equity addition considered during the year	Rs. Crs.	0.00	8.20	0.98
3	Closing equity eligible for return	Rs. Crs.	214.24	222.44	223.42
4	Equity-average eligible for return	Rs. Crs.	214.24	218.34	222.93
5	RoE Rate (Pre Tax)	%	15.50	15.50	15.50
6	Annual RoE	Rs. Crs.	**33.21**	**33.84**	**34.55**

Interest and Finance Charges

3.1.24 With regard to the loans, MPPGCL has submitted that the PFC sanctioned two loans for Rs.742 Crs. and Rs.117.68 Crs. with the terms and conditions as given below:

Loan-I (No. 20101012)		
1. Sanctioned amount	:	Rs. 742 Cr.
2. Sanctioned Date	:	28th September, 2004
3. Number of installments	:	40 Nos.
4. Repayment period	:	10 years

Loan-II (No. 20701002)		
1. Sanctioned amount	:	Rs. 117.68 cr.
2. Sanctioned Date	:	31st August, 2007
3. Number of installments	:	48 Nos.
4. Repayment period	:	12 years

Further details of above loans have been provided by the petitioner in form TPS-7 (page-60) in the petition.

3.1.25 It has also been submitted by the petitioner that the GoMP has accorded approval for approaching PFC for additional loan of Rs.49.21 crores. However, PFC's sanction for the aforesaid third loan for Rs.49.21 crores is awaited. The total loan drawal till CoD is Rs.711.77 crores. The position of tied-up and proposed funds as submitted by the petitioner in Para 3.3. of the petition is given as below :

Table : 16

Item	Cr. Rs.	%
PFC Loan tied up	859.68	75.70%
Equity Approved by GoMP	226.76	19.97%
Balance Fund proposed as PFC Loan	49.21	4.33%
Total	**1135.65**	**100.00%**

3.1.26 The Commission has considered the opening loan amount as on CoD as shown in **Table-12** of this order. Considering the loan drawls as filed by the petitioner, repayment equal to depreciation allowed in this order and the weighted average rate of interest calculated by the petitioner in Form TPS-13 of the petition, the interest and finance charges on PFC loan allowed in this order is given below

Table: 17 Interest and Financing charges on Loan:

Sr. No.	Particulars	Unit	Allowed in order for final tariff		
			FY 2009-10	FY 2010-11	FY 2011-12 (Projected)
1	Opening balance of loan eligible for interest	Rs. Crs.	691.87	667.94	688.30
2	Drawls during the year considered	Rs. Crs.	0.00	62.35	20.08
3	Repayment during the year	Rs. Crs.	23.94	41.99	44.03
4	Closing balance of loan eligible for interest	Rs. Crs.	667.94	688.30	664.35
5	Average loan eligible for interest	Rs. Crs.	679.91	678.12	676.33
6	Weighted average rate of interest	%	11.45	11.66	13.00
7	Interest amount on normative loan	Rs. Crs.	**77.85**	**79.07**	**87.92**

Depreciation

3.1.27 The petitioner in Para 8.1 of the petition stated that the weighted average rate of depreciation has been determined as per the Regulation, 2009 on the basis of rates specified in Appendix-II of the Regulations. The effective rate of depreciation on annual basis is worked out to 4.67% as given below :

Table : 18

SN	Name of the Assets	Gross Block as on CoD	Dep. Rates	Dep. for 2009-10 (for 203 Days)	Dep. For 2010-11	Dep. For 2011-12
	1	**2**	**3**	**4**	**5**	**6**
1	Cost of Land	2.50	0.00	0.00	0.00	0.00
2	Building and civil engineering works foe Plant including cooling tower, cw system, BTG and BOP	293.81	3.34	5.46	9.81	9.81
3	Plant and Machinery for generating station including BTG, Cooling Tower, CW System and Electricals	657.67	5.28	19.31	34.72	34.72
4	Other assets not covered above	2.72	5.28	0.08	0.14	0.14
	TOTAL	**956.69**		**24.85**	**44.68**	**44.68**
	Weighted Average Rate of Depreciation (%)		**4.67**			

3.1.28 Since the unit was in commercial operation for 203 days only hence, the petitioner has calculated the amount on depreciation for FY 2009-10 on pro-rata basis for 203 days. While determining the annual depreciation, the rate of depreciation for FY 2009-10 and FY 2010-11 has been worked out from the asset-cum-depreciation register for ATPS, PH-III submitted by the petitioner and the same has been applied on admitted capital cost. Considering the net final capital cost approved by the Commission for Rs.906.10 crores as on CoD in **Table-11** above and the additions during each year as filed by the petitioner, the depreciation as approved by the Commission is given as below :

Table: 19 Depreciation:

Sr. No.	Particulars	Unit	Allowed in this tariff order		
			FY 2009-10	FY 2010-11	FY 2011-12 (Projected)
1	Opening Gross Block considered	Rs. Crs.	906.10	906.10	976.66
2	Addition during the year considered	Rs. Crs.	0.00	70.56	21.07
3	Closing Gross Block considered	Rs. Crs.	906.10	976.66	997.73
4	Gross Block-average	Rs. Crs.	906.10	941.38	987.20
5	Annual wt. average depreciation rate	%	4.75	4.46	4.46
6	Depreciation amount	Rs. Crs.	**43.04**	**41.99**	**44.03**
7	Opening Cumulative depreciation	Rs. Crs.	0.00	23.94	65.92
8	Closing Cumulative depreciation	Rs. Crs.	23.94	65.92	109.95

Operation & Maintenance Expenses

3.1.29 Clause 34.1 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 provides that,

"The Operation and Maintenance expenses admissible to existing thermal power stations comprise of employee cost, Repair & Maintenance (R&M) cost and Administrative and General (A&G) cost . These norms exclude Pension, Terminal Benefits and Incentive to be paid to employees, taxes payable to the Government, MPSEB expenses and fees payable to MPERC. The Generating Company shall claim the taxes payable to the Government and fees to be paid to MPERC separately as actuals. The claim of pension and Terminal Benefits shall be dealt as per Regulation 26.

O&M Norms for Thermal Generating Units

Rs. In lakh/MW			
Units (MW)	***FY 09-10***	***FY 10-11***	***FY 11-12***
62.5	*21.42*	*22.74*	*24.13*
120	*17.84*	*18.94*	*20.10*
200/210/250	*14.28*	*15.16*	*16.09*
500	*10.7*	*11.36*	*12.05*

3.1.30 In accordance with the above provisions in the Regulation, the annual O&M expenses allowed in this order is given as below :

Table : 20

Sr. No.	Particulars	Unit	Allowed in order for final tariff		
			FY 2009-10	**FY 2010-11**	**FY 2011-12**
1	Capacity of the Generating Unit	MW	210	210	210
2	Normative rate of O&M expenses	L.Rs./MW	14.28	15.16	16.09
3	Annual O&M charges	Rs. Crs.	**29.99**	**31.84**	**33.79**

Cost of Secondary Fuel Oil Consumption

3.1.31 The petitioner in Para 11.1 has submitted that the expenses of secondary fuel oil consumption has been computed corresponding to normative secondary fuel oil consumption and normative plant availability factor in accordance with Clause 36 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009. The petitioner has further submitted that the cost incurred on secondary fuel oil during FY 2009-10 and FY 2010-11 is based on the weighted average price of secondary fuel oil for the respective year as per the books of accounts. However, the projections for FY 2011-12 in respect of weighted average price of secondary fuel oil has been taken by the petitioner (filed in Form TPS-17) based on the monthly values available with the RAO, ATPS, Chachai. The petitioner vide letter No.285 dated 24th March, 2012 has also submitted the supporting documents in respect of coal rates as per coal accounting statement and secondary oil rates as per the monthly statement of oil consumption issued by Sr. Account Officer, ATPS, Chachai for FY 2009-10 and FY 2010-11. Based on the above, the annual cost of secondary fuel oil consumption allowed in this order is given as below :

Table : 21

Sr. No.	Particulars	Unit	Allowed in order for final tariff		
			FY 2009-10	**FY 2010-11**	**FY 2011-12**
1	Capacity	MW	210	210	210
2	NAPAF	%	85	85	85
3	Annual Gross Generation	MU's	1564	1564	1568
4	Normative Sp. Oil consumption	ml/kWh	1.00	1.00	1.00
5	Quantity of Oil required	KL	1564	1564	1568
6	Wt Average price of Oil as filed	Rs./KL	31405	32845	36577
7	Annual oil cost	Rs. Crs.	**4.91**	**5.14**	**5.74**

3.1.32 Clause 36.1 and 36.2 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009 provides that,

"Expenses on Secondary fuel oil in Rupees shall be computed corresponding to normative Specific Fuel Oil Consumption (SFC) specified in Regulation 33, in accordance with the following formula:

= SFC x LPSFi x NAPAF x 24 x NDY x IC x 10
Where,

SFC - Normative Specific Fuel Oil Consumption in ml/kWh
LPSFi - Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially
NAPAF- Normative Annual Plant Availability Factor in percentage
NDY - Number of Days in a Year
IC - Installed Capacity in MW

Initially, the landed cost incurred by the Generating Company on secondary fuel oil shall be taken based on actuals of the weighted average price of the three preceding months and in the absence of landed costs for the three preceding months, latest procurement price for the generating station, before the start of the Year.

The secondary fuel oil expenses shall be subject to fuel price adjustment at the end of the each Year of Tariff period as per following formula:

SFC x NAPAF x 24 x NDY x IC x 10 x ($LPSF_y$ – $LPSF_i$)
Where,
$LPSF_y$ = The weighted average landed price of secondary fuel oil for the Year in Rs. /ml."

3.1.33 The afore-mentioned clause of the Regulation takes care of the cost of secondary fuel oil subject to fuel price adjustment at the end of each year of tariff period as per the given formula given in the Regulation.

Interest on Working Capital :

Petitioner's submission

3.1.34 The petitioner has determined the interest on working capital in accordance with the norms as approved by the Commission in MPERC (Terms and Conditions for determination of generation tariff) Regulations, 2009 and its amendments.

3.1.35 The rate of interest on working capital has been taken by the petitioner equal to 12.25% for FY 2009-10, the short term prime Lending rate of State Bank of India as on 1st April, 2009, 11.75% for FY 2010-11 and 12.25% for FY 2011-12, equal to the State Bank of India Base Rate as on 1st April of that financial year plus 4%.

Provision of the Regulation

3.1.36 Clause 35 of the Regulations regarding working capital for coal based generating stations provides that,

"*The Working Capital for Coal based generating stations shall cover:*

(i) Cost of coal for 45 Days for pit-head generating stations and two months for non-pit-head generating stations, corresponding to the normative availability;

(ii) Cost of secondary fuel oil for two months corresponding to the normative availability:

Provided that in case of use of more than one secondary fuel oil, cost of fuel oil stock shall be provided for the main secondary fuel oil.

(iii) Maintenance spares @ 20% of the normative O&M expenses;

(iv) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor; and

(v) Operation and Maintenance expenses for one month.

The cost of fuel shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the Generating Company and Gross Calorific Value of the fuel as per actual for the preceding three months and no fuel price escalation shall be provided during the Tariff period."

Commission's analysis

3.1.37 The Commission has computed the working capital for ATPS Extension unit 5, 210 MW as per the norms provided in the Regulations for the following elements :

(a) Coal Cost:

The cost of coal for thermal power stations has been worked out for 45 days for pit-head generating stations and two months for non pit-head generating stations on the basis of operational norms specified in the Regulations and weighted average price and GCV of coal. The weighted average rate of coal and GCV of Coal taken as filed by the petitioner. The monthly coal accounting statement of and coal analysis has also been submitted by the petitioner in support of weighted average price and GCV of coal. As per clause 39.5 of the Regulation, 2009 the ATPS 210 MW unit treated as a non-pit-head generating unit. Accordingly the coal cost for working capital worked out as given below:

Table : 22 Cost of Coal for working capital

Particulars	Unit	FY 2009-10	FY 2010-11	FY 2011-12
Wt.avg. GCV of Coal	kCal/kg	4078	3992	4010
Heat contributed by Coal	kCal/kWh	2440	2440	2440
Specific Coal consumption	kg/kWh	0.5983	0.6112	0.6085
Annual requirement of Coal	LMT	935589	955744	954095
Coal stock (60 days in non-pit-head station)	Metric Tons	155931	159291	159016
Wt. Avg. price of Coal	Rs./MT	1507.51	1485.60	1526.49
Cost of Coal stock mentioned above	Rs.Cr	23.51	23.66	24.27

(b) Secondary fuel oil:

The petitioner has claimed the cost of secondary fuel oil (HFO+LDO) for working capital for the unit based on the weighted average rate of oil procured during financial year FY 2009-10 to FY 2011-12. The petitioner in its additional submissions dated 21st March, 2012 has submitted the statement of Sr. account officer ATPS Chachai indicating the quantity & rate of monthly oil procured and worked out the weighted average rate of sec. fuel oil based on the quantity and rate in the statement. The same has been considered for determination working capital.

As per the 2009 Regulation, in case of use of more than one secondary fuel oil, cost of fuel oil stock shall be provided for the main secondary fuel oil. Accordingly, the fuel oil component in working capital is worked out as under for the tariff period FY 2009-10 to FY 2011-12.

Table : 23 Station-wise Cost of Secondary Fuel Oil for working capital

Particulars	Unit	FY 2009-10	FY 2010-11	FY 2011-12
Wt.avg. GCV of Oil	kCal/ltr.	10,000	10,000	10,000
Sp. Oil consumption	kg/kWh	1.00	1.00	1.00
Heat contributed by oil	kCal/kWh	10	10	10
Annual requirement of oil	KL	1564	1564	1568
Oil stock for two months	KL	260.67	260.67	261.33
Wt. Avg. price of Oil	Rs./KL	27254	29504	29508
Cost of Oil stock mentioned above	Rs.Cr	0.71	0.77	0.77

(c) O&M expenses:

O&M expenses of one month out of the normative O&M expenses approved in this order have been considered for working capital.

(d) Maintenance Spares:

The petitioner has calculated the value of maintenance spares for the purpose of working capital as 20% of the normative O&M expenses based on the norms for working capital prescribed in the Regulations. The Commission has also considered the same for working capital purpose.

(e) Receivable:

As per the Regulations, receivables for thermal power stations shall be equivalent to two months of capacity and energy charges for sale of electricity calculated on the normative annual plant availability factor. Accordingly, the receivables have been worked out considering the operational parameters and weighted average price of fuel.

The petitioner has filed the rate of interest on working capital equal to 12.25% for FY 2009-10, the short term prime Lending rate of State Bank of India as on 1st April, 2009, and 11.75% and 12.25% for FY 2010-11 & FY 2011-12, respectively equal to the State Bank of India Base Rate as on 1st April of that financial year plus 4%. The Commission has worked out the interest on working capital considering the same rate of interest as filed by the petitioner.

Table: 24 Interest Charges on Working Capital

Sr. No.	Particulars	Unit	Allowed in order for final tariff		
			FY 2009-10	FY 2010-11	FY 2011-12 (Projected)
1	Coal Stock for two months	Rs. Crs.	23.51	23.66	24.27
2	Secondary Oil Stock for two months	Rs. Crs.	0.71	0.77	0.77
3	O & M Expenses for one month	Rs. Crs.	2.50	2.65	2.82
4	Maint. Spares 20% of Normative O&M Expenses	Rs. Crs.	6.00	6.37	6.76
5	Receivables for two months	Rs. Crs.	56.83	57.42	60.55
6	Total Working Capital	Rs. Crs.	89.55	90.88	95.17
7	Rate of interest	%	12.25	11.75	12.25
8	Interest on working capital	Rs. Crs.	**10.97**	**10.68**	**11.66**

3.1.38 Based on the above, the total annual capacity charges for each year as approved in this order is given below :

Table : 25 Total Annual Capacity Charges

Sr. No.	Particulars	Unit	Allowed in this final tariff order		
			FY 2009-10	**FY 2010-11**	**FY 2011-12 (Projected)**
1	Return on Equity		33.21	33.84	34.55
2	Interest and Financing charges on Loan	Rs. Crs.	77.85	79.07	87.92
3	Depreciation	Rs. Crs.	43.04	41.99	44.03
4	Operation and Maintenance Expenses	Rs. Crs.	29.99	31.84	33.79
5	Cost of Secondary Fuel Oil	Rs. Crs.	4.91	5.14	5.74
6	Interest Charges on Working Capital	Rs. Crs.	10.97	10.68	11.66
7	**Total annual Capacity Charges**	Rs. Crs.	**199.96**	**202.55**	**217.69**
8	Days of operation	No.	203	365	365
9	Annual Capacity Charges (for 203 days in FY2009-10)	Rs. Crs.	**111.21**	**202.55**	**217.69**

3.1.39 The recovery of annual capacity (fixed) charges shall be made by the petitioner in accordance with the Regulations 38.2 on pro-rata basis with respect to actual annual plant availability factor.

Energy Charges (Variable Charges)

3.1.40 The energy charges (Variable charges) cover main fuel costs and shall be payable for the total energy scheduled to be supplied to the beneficiary during the calendar month on ex-power plant basis, at the variable charge rates approved by the Commission. The Energy Charge Rate, in Rupees per kWh, has been determined to three decimal places, in accordance with clause 39.2 of the Regulations 2009. For the calculations, weighted average price of coal on as fired basis, as shown in Form-16, and normative transit and handling losses as percentage of the quantity of the coal required, i.e., 0.8% (for Non-Pit Head Generating Station) have been considered.

3.1.41 The petitioner has considered the normative net generation for FY 2011-12 as scheduled generation and accordingly, worked out the energy charges.

3.1.42 The plant has been under commercial operation for only 203 days in FY 2009-10 since CoD hence, the effective days of operation considered by the Commission for FY 2009-10 is 203 days. The operating parameters considered for working out energy charges are the normative parameters prescribed in the MPERC (Terms & Conditions for determination of Generation Tariff) Regulations, 2009. The weighted average rate of GCV of coal is considered on the basis of monthly analytical report of coal filed by the petitioner. The rate of specific oil and coal has been considered as per the coal and oil accounting statements filed by the petitioner based on the audited account for ATPS, Chachai. Accordingly, the energy charges have been computed as under :

Table : 26 Energy Charges

Sr. No.	Particular	Unit	Energy Charge Rate		
			FY 2009-10	FY 2010-11	FY 2011-12
1	Capacity	MW	210	210	210
2	NAPAF	%	85	85	85
3	Gross Station Heat Rate	kCal/kWh	2450	2450	2450
4	Sp. Fuel Oil Consumption	ml/kWh	1.00	1.00	1.00
5	Aux. Energy Consumption	%	9.00	9.00	9.00
6	Weighted average GCV of Oil	kCal/ltr.	10,000	10,000	10,000
7	Weighted average GCV of Coal	kCal/kg	4078	3992	4010
8	Weighted Average landed price of Coal	Rs./MT	1507.51	1485.60	1526.49
9	Heat Contributed from HFO	kCal/kWh	10	10	10
10	Heat Contributed from Coal	kCal/kWh	2440	2440	2440
11	Sp. Coal Consumption	kg/kWh	0.5983	0.6112	0.6085
12	Rate of Energy Charge from Coal	Paise/kWh	90.20	90.80	92.88
13	**Rate of Energy Charge from Coal at ex-bus**	**Paise/kWh**	**99.12**	**99.78**	**102.07**

3.1.43 The base rate of energy charges shall however, be subject to month-to-month adjustment of actual fuel price and actual GCV of main fuel. The above energy charges have been calculated for the purpose of calculation of two month's billing which is used for calculation of interest on working capital.

3.1.44 The actual billing of energy charges shall be as per the formula provided in Tariff Regulations, 2009. The weighted average landed price of coal for the purpose of computation of energy charges shall be worked out on the basis of landed cost of coal as prescribed in Regulation 39.4 of MPERC (Terms & Conditions for determination of Generation Tariff) Regulation, 2009, which provides that,

> *"The landed cost of coal shall include price of coal corresponding to the grade and quality of coal inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of Energy Charges, shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal despatched by the Coal Supply Company during the month as given below:*
>
> *Pit head generating stations : 0.2%*
> *Non-Pit head generating stations : 0.8%"*

As per above provision, it should be ensured that for computing energy charges quantity of coal as despatched by the Coal Supply Company is taken after accounting for permissible transit and handling losses alone.

Other Expenses

3.1.45 The petitioner has claimed water charges, cess, rent, rates and taxes, duties and levies, filing fee, common expenses, publication expenses, entry tax on R&M, fringe benefit tax and any other tax, if payable etc. on actual basis, over and above the fixed and variable charges.

3.1.46 The petitioner is allowed to recover the fee paid by the petitioner to MPERC for determination of generation tariff and ED and cess on auxiliary power consumption levied by the Statutory Authorities from the beneficiaries on pro-rata basis.