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**MADHYA PRADESH ELECTRICITY REGULATORY COMMISSION**  
**"Metro Plaza", Bittan Market, Bhopal - 462 016**

**Petition No. 56/2008**

**PRESENT:**

**Dr. J. L. Bose, Chairman**

**K.K. Garg, Member.**

**C.S. Sharma, Member**

**IN THE MATTER OF:**

**True-up of Generation Tariff for FY 2006-07, determined by MP  
Electricity Regulatory Commission vide Generation Tariff Order dated  
07/03/2006.**

**MPPGCL (Petitioner) represented amongst the others by –**

- 1. Shri S. P. Soni, S. E.**
- 2. Shri Manjeet Singh, Dy. Director (Costs)**
- 3. Shri Salil Choudhary, E.E.**
- 4. Shri S.K. Vishwakarma, E.E.**
- 5. Shri A.N. Sarkar, A.E.**

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**ORDER**

*(Passed on this 17<sup>th</sup> Day of June, 2009)*

- 1 The Madhya Pradesh Electricity Regulatory Commission (hereinafter called “the Commission” or “MPERC”) having gone through the Petition submitted by the MP Power Generating Company Limited (hereinafter called “the Petitioner” or “Company” or “Generating Company” or “MPPGCL”) and having had the formal interactions with the officers of the Petitioner during the months of January and February 2009 and having met the members of the State Advisory Committee (SAC) in January and June, 2009 and having considered the documents available on record and orders issued by the Government of Madhya Pradesh (Energy Department) on 31st May 2005 making the Transfer Scheme Rules effective from 1st June 2005 vide order no. 3679/FRS/18/13/2002 dated 31.5.2005, hereby accepts the application with modifications, conditions and directions as attached herewith.
- 2 The Commission modified the estimates of true-up of the Annual Revenue Requirement for FY 2006-07 based on the efficient and reasonable operating parameters and expenditure and accordingly modified the proposal submitted by the Madhya Pradesh Power Generating Company Limited for true- up of the Multi Year Generation Tariff (MYT) Order (for the control period FY2006-07 to FY2008-9) issued on 07/03/2006 as per detailed order attached to this order.
- 3 The Commission, in exercise of the powers vested under Section 64 of the Electricity Act, 2003, in its MYT generation tariff order dated 07/03/2006 directed that the station-wise generation tariff determined by the said order was deemed effective w.e.f. 1st April 2006. The present order is on the true-up of the generation tariff order of 07/03/2006 to the extent it was applicable for FY 2006-07. 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 recalculate its bills for the energy supplied to Distribution Companies of the State/ M.P. Power Trading Company Ltd. since 1st April 2006 to 31st March 2007. The Petitioner must also provide information to the Commission in support of having complied with this order. The amount emerging from this true-up shall be recoverable from the three Distribution Companies of the State in the ratio of energy supplied to them in FY 2006 - 07 in equal monthly instalments during FY 2009- 10 i.e. up to March 2010 from the month following the month of issue of this Order.
- 4 Ordered as above read with attached detailed reasons and grounds,

Sd/-

**(C.S. Sharma)**  
**Member (Economics)**

Sd/-

**(K.K. Garg)**  
**Member (Engineering.)**

Sd/-

**(Dr. J. L. Bose)**  
**Chairman**

**Date: June 17, 2009**

**Place: Bhopal**

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**TABLE OF CONTENTS**

**CHAPTER 1..... 6**

    BACKGROUND OF THE ORDER..... 6

    PROCEDURAL HISTORY ..... 7

    STATE ADVISORY COMMITTEE..... 9

**A2:    CHAPTER 2..... 10**

    AVAILABILITY AND PLF..... 10

*Thermal Generation*..... 10

*Hydro Generation* ..... 12

    COMPUTATION OF VARIABLE COST FOR TRUE UP ..... 14

*Station Heat Rate*..... 14

*Specific Oil Consumption*..... 15

*Gross Calorific Value (GCV)* ..... 16

*Coal Costs*..... 17

*Transit and Stacking losses*..... 19

*Secondary Fuel Oil cost*..... 20

*Other fuel related Charges* ..... 21

*Total Variable Cost of Generation*..... 22

**A3:    CHAPTER 3..... 23**

    COMPUTATION OF ANNUAL FIXED CHARGES ..... 23

*Repair and Maintenance Expenses*..... 25

*A&G Expenses* ..... 26

*Employee Expenses* ..... 28

*Cost of Chemical for Thermal Stations* ..... 29

*Consumable and Stores for Thermal Stations* ..... 30

*Water Charges*..... 30

*Operation and Maintenance Expense* ..... 31

    DEPRECIATION ..... 32

*Advance against Depreciation*..... 33

    INTEREST AND FINANCE CHARGES..... 35

*Interest on Loan*..... 35

*Interest on Working Capital*..... 42

*Non-Tariff Income*..... 43

    OTHER EXPENSES ..... 45

*Water Cost*..... 45

*Cess on Auxiliary Consumption*..... 46

*MPERC Fees*..... 48

*Rent & Taxes*..... 48

*Employee Terminal Benefit*..... 49

*Return on Equity* ..... 50

*Summary of Fixed and Variable cost on True up of ARR for FY 2006-07:* ..... 50

*True -up Cost allowed in this Order*..... 52

**LIST OF TABLES**

TABLE 1 : VARIABLE COST OF THERMAL POWER STATIONS AS ALLOWED IN MYT ORDER	(RS. LAKH)	6
TABLE 2 : FIXED COST OF THERMAL POWER STATIONS AS ALLOWED IN MYT ORDER	(RS. LAKH)	6
TABLE 3 : FIXED COST OF HYDEL POWER STATIONS AS ALLOWED IN MYT ORDER	(RS. LAKH)	7
TABLE 4 : ABSTRACT OF THE EXPENSES FOR FY 2006-07 AS FILED IN THE TRUE UP	(RS. CRORE)	9
TABLE 5 : ABSTRACT OF STATION WISE TRUE - UP AMOUNT AS FILED IN THE TRUE-UP	(RS. CRORE)	9
TABLE 6 : NORMATIVE VS. ACTUAL AVAILABILITY FOR FY 2006-07 (%)		10
TABLE 7 : APPROVED VS. ACTUAL PLF FOR FY2006-07 TRUE -UP		11
TABLE 8 : GROSS GENERATION AS PER MYT ORDER VS ACTUAL (MUS) FOR FY 2006-07		12
TABLE 9 : NORMATIVE VS. ACTUAL AUX. CONSUMPTION FOR FY2006-07		12
TABLE 10 : NET GENERATION AS PER MYT ORDER VS ACTUAL (MU) FOR FY 2006-07		12
TABLE 11 : NORMATIVE AND ACTUAL CAPACITY INDEX IN FY 2006-07 (MU)		13
TABLE 12 : APPROVED GROSS AND NET GENERATION IN FY 2006-07 (MU), AS PER MYT ORDER		13
TABLE 13 : ACTUAL GROSS AND NET GENERATION IN FY 2006-07 (MU)		14
TABLE 14 : NORMATIVE VS. ACTUAL STATION HEAT RATE (kCAL/kWh) IN FY 2006-07		14
TABLE 15 : SPECIFIC OIL CONSUMPTION AS APPROVED IN THE MYT TARIFF ORDER (ML/kWh) FOR FY 2006-07		15
TABLE 16 : NORMATIVE VS. ACTUAL SPECIFIC OIL CONSUMPTION (ML/kWh) FOR FY2006-07		15
TABLE 17 : CALORIFIC VALUE OF COAL FOR FY 2006-07		17
TABLE 18 : COAL COST AS PER MYT ORDER FOR FY 2006-07		17
TABLE 19 : COAL QUANTUM CONSUMED IN FY 2006-07 AS PER THE PETITION		17
TABLE 20 : DETAILS OF FUEL PRICES AS PER TRUE-UP PETITION FOR FY 2006-07		18
TABLE 21 : CALCULATION OF AVERAGE PER METRIC TON COAL COST FOR FY2006-07		19
TABLE 22 : NORMATIVE TRANSIT LOSSES AS APPROVED IN MYT TARIFF ORDER AND ALLOWED IN TRUE-UP		19
TABLE 23 : COST OF COAL AS PER TRUE UP CALCULATION FOR FY2006-07		20
TABLE 24 : VALIDATION OF SFO COST AS FROM AUDITED ACCOUNT FOR FY2006-07 (RS IN LAKHS)		20
TABLE 25 : CALCULATION OF PER-KL OIL COST FOR FY 2006-07		21
TABLE 26 : COST OF OIL AS ALLOWED BY THE COMMISSION DURING TRUE UP FOR FY 2006-07		21
TABLE 27 : OTHER FUEL COST AS CLAIMED BY PETITIONER FOR TRUE-UP FY 2006-07	(RS. LAKHS)	21
TABLE 28 : OTHER FUEL RELATED COST CLAIMED AND VALIDATED BY THE COMMISSION FOR FY 2006-07		22
TABLE 29 : OTHER FUEL RELATED COST ALLOWED BY THE COMMISSION FOR THE FY2006-07	(RS. LAKH)	22
TABLE 30 : VARIABLE COST OF GENERATION FOR FY2006-07 (RS. CRORES)		22
TABLE 31 : O&M EXPENSES FOR ALL STATIONS FOR FY2006-07	(RS. LAKH/MW)	23
TABLE 32 : R&M EXPENSES CLAIMED BY PETITIONER	(RS. LAKH)	25
TABLE 33 : A&G EXPENSES CLAIMED IN TRUE-UP PETITION (RS. IN LAKHS)		27
TABLE 34 : EMPLOYEE EXPENSES AS CLAIMED IN TRUE-UP PETITION AND APPROVED BY THE COMMISSION (RS. LAKHS)		29
TABLE 35 : COST OF CHEMICALS	(RS. LAKHS)	30
TABLE 36 : CONSUMABLE AND STORES	(RS. LAKH)	30
TABLE 37 : WATER CHARGES OF THERMAL STATION CONSIDERED IN O&M COST	(RS. LAKH)	31
TABLE 38 : ACTUAL O&M EXPENSES ALLOWED BY THE COMMISSION	(RS. LAKH)	31
TABLE 39 : ACTUAL VS. NORMATIVE O&M EXPENSES	(RS. LAKHS)	32
TABLE 40 : DEPRECIATION AS APPROVED IN MYT ORDER AND CLAIMED IN TRUE-UP	(RS. LAKHS)	32
TABLE 41 : ADVANCE AGAINST DEPRECIATION AS PER FILING OF MPPGCL	(RS CRORES)	33
TABLE 42 : AAD AS PER COMMISSION'S ANALYSIS	(RS CRORES)	34
TABLE 43 : LOAN AS ON 31/3/07 AS PER AUDITED ACCOUNTS		35
TABLE 44 : BREAK UP OF UNSECURED LOAN	(RS. CRORES)	35
TABLE 45 : ALLOCATION OF LINKED AND UNLINKED LOAN	(RS. CRORE)	36
TABLE 46 : BREAK UP OF LINKED AND UNLINKED LOAN	(RS. IN CRORES)	37
TABLE 47 : LOAN FUND UTILIZATION FOR CAPITAL ASSETS CREATION	(RS. IN CRORES)	37
TABLE 48 : BREAK UP OF UNLINKED LOAN UTILIZED FOR COMPLETED PROJECTS AND INTEREST (RS CRORES)		38
TABLE 49 : INTEREST ALLOWED ON UNLINKED LOAN	(RS. CRORES)	38
TABLE 50 : UNSECURED PFC LOAN AS PER BALANCE SHEET FOR FY 2005-06 & 07	(RS. CRORE)	39
TABLE 51 : PFC LOAN SCHEDULE FOR FY 2006-07		39
TABLE 52 : PFC INTEREST	(RS. CRORE)	39
TABLE 53 : LIC LOAN AS PER BALANCE SHEET	(RS. CRORE)	40
TABLE 54 : LIC LOAN- FY 2005-06	(RS CRORE)	41
TABLE 55 : LIC LOAN-FY2006-07	(RS CRORE)	41
TABLE 56 : INTEREST CLAIMED AND ALLOWED	(RS CRORE)	41
TABLE 57 : COMPARISON OF WORKING CAPITAL INTEREST EXPENSES	(RS LAKH)	42

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TABLE 58 : ALLOWED INTEREST ON WORKING CAPITAL	(RS. LAKH).....	43
TABLE 59 : APPROVED VS ACTUALS NON TARIFF INCOME	(RS. LAKH).....	44
TABLE 60 : ALLOWED NON TARIFF INCOME	(RS. LAKH).....	44
TABLE 61 : WATER COST CLAIMED IN TRUE-UP	(RS. LAKH) .....	45
TABLE 62 : WATER CHARGES ALLOWED IN MYT vs. TRUE-UP	(RS. LAKH).....	46
TABLE 63 : CESS ON AUXILIARY CLAIMED IN TRUE-UP PETITION	(RS. LAKH).....	47
TABLE 64 : COMPARATIVE CESS ALLOWED IN MYT vs. TRUE-UP	(RS. LAKH).....	47
TABLE 65 : MPERC FEES ALLOWED VS. CLAIMED	(RS LAKH).....	48
TABLE 66 : ALLOWED RENT AND TAXES IN MYT ORDER vs. ACTUAL	(RS. LAKH) .....	48
TABLE 67 : PROVISIONAL TERMINAL BENEFIT CLAIMED BY PETITIONER	(RS. LAKH) .....	49
TABLE 68 : ALLOWABLE FIXED COST AT NORMATIVE AVAILABILITY	(RS. LAKH).....	50
TABLE 69 : FIXED COST COMPONENT AFTER CONSIDERATION OF AVAILABILITY FACTOR	(RS. LAKHS).....	51
TABLE 70 : ALLOWED TOTAL FIXED COST	(RS. LAKH).....	52
TABLE 71 : ALLOWED VARIABLE COST	(RS CRORE) .....	52
TABLE 72 : STATION WISE TRUE-UP RECOVERY	(RS. LAKH) .....	53

## CHAPTER 1

### Background of the order

- 1.1 This order relates to Petition number 56 of 2008 filed by the Madhya Pradesh Power Generating Company Limited (MPPGCL) for true-up of the generation tariff for FY 2006-07 under the Multi-Year generation (MYT) Tariff order for control period FY 2006-07 to FY 2008-09 determined by the Commission vide its Generation Tariff Order dated March 7<sup>th</sup>, 2006.
- 1.2 The Generating Company earlier filed the Petition (No. 149/2005) for determination of Multi-Year generation tariff for the control period from FY2006-07 to FY2008-09. With regard to the said Petition, the Commission issued Multi-Year Tariff order dated 07.03.06 based on the 'Madhya Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulation, 2005' (G-26 of 2005.) for the control period FY 2006-07 to FY 2008-09. Vide Petition no. 56/2008 dated 31/07/2008, MPPGCL has filed Petition for true-up of Generation Tariff for FY2006-07.
- 1.3 The Variable cost allowed by the Commission for FY2006-07 in its MYT order issued on 07/03/2006. is reproduced below:

**Table 1 : Variable Cost of Thermal Power Stations as allowed in MYT order (Rs. Lakh)**

SR. No	Power Station	Net Generation (MU)	Coal Cost	Other Fuel Related Cost	Oil Cost	Variable Cost	
						Rs Lakhs	Rs/ kWh
1	ATPS	1150	11631	97	1722	13450	<b>1.17</b>
2	STPS	7076	90682	759	4272	95713	<b>1.35</b>
3	SGTPS	5022	48856	409	2541	51806	<b>1.03</b>

- 1.4 A detailed statement showing station-wise items of fixed cost of thermal power stations allowed by the Commission for FY2006-07 in its MYT order is reproduced in the table below:

**Table 2 : Fixed Cost of Thermal Power Stations as allowed in MYT order (Rs. Lakh)**

Power station	O&M expenses	Cess on aux. Power Consumption	Rents and Rates	MPERC fee	Prior period Expenses	Depreciation	Interest & Finance charges	Interest on Working Capital (W/C)	Return on Equity (RoE)	Non-Tariff Income	Total	Fixed Cost (Rs./ kWh)
ATPS	3355	155	7	15	-	141	97	592	421	(-)44	4738	<b>0.41</b>
STPS	13219	686	41	57	8496	552	139	3930	1774	(-)244	20154	<b>0.28</b>
SGTPS	9719	534	32	42	-	6875	4464	2640	6182	(-)193	30294	<b>0.60</b>

- 1.5 Detailed statement showing station-wise fixed cost of Hydel stations allowed by the Commission for FY2006-07 in its MYT order is given in the table below:

**Table 3 : Fixed Cost of Hydel Power Stations as allowed in MYT order (Rs. Lakh)**

Power Station	O&M expenses	Cess on aux.	Rents and Rates	Water Charges	MPE RC fee	Prior period Expenses	Depreciation	Interest & Finance charges	Interest on WC	ROE	Non-Tariff Income	Total	Fixed Cost (Rs./ kWh)
G.Sagar	508	2	3	466	1	0	8	0	26	30	(-)7	1037	<b>0.30</b>
Pench	707	3	2	0	2	0	114	0	38	256	(-)6	1116	<b>0.36</b>
Rajghat	199	0.9	1	122	0.45	0	219	41	28	242	(-)2	850	<b>0.95</b>
Bargi	398	5	8	102	1	0	194	0	31	226	(-)19	945	<b>0.19</b>
Bansagar	1790	11	16	221	4	0	2587	814	338	3628	(-)40	9370	<b>0.86</b>
Birsingpur	88	0.4	1	0	0.2	0	133	0	14	152	(-)2	387	<b>0.87</b>

#### Procedural history

- 1.6 The Petitioner filed the subject Petition on 31/07/2008 through its authorised signatory Shri S.P. Soni, S.E. (Corporate Planning). The Petitioner authorised Shri S. P. Soni as the Officer Incharge to present the facts and figures before the Commission. The Commission registered this Petition as 56/2008.
- 1.7 On preliminary scrutiny of the Petition, several discrepancies and information gaps were observed by the Commission. The Petitioner, MPPGCL vide Commission's letter dated 4<sup>th</sup> October, 2008 was asked to file a comprehensive reply on all issues with supporting documents, latest by 20<sup>th</sup> October, 2008. Since no response was received from the Petitioner, the Commission vide its letter dated 1<sup>st</sup> November, 2008 once again directed the Petitioner to submit required information by 14<sup>th</sup> November, 2008.
- 1.8 The Commission received the response from the Petitioner on 17<sup>th</sup> November, 2008. It was observed that the values of some items filed by the Petitioner in its reply were different as compared to those filed in the original Petition. So the Commission vide its Order-Sheet dated 28<sup>th</sup> November, 2008 directed MPPGCL to file revised Petition on an affidavit.
- 1.9 The Petitioner filed the revised Petition on 6<sup>th</sup> January, 2009 along with the gist for publication for inviting comments from stakeholders for approval of the Commission.
- 1.10 The Commission admitted the Petition filed by MPPGCL on 9<sup>th</sup> January, 2009 and directed the Company to publish the gist of the Petition in newspapers, as approved.
- 1.11 The public notice was published in the following newspapers on 20/01/2009. The last date for filing the comments / objections / suggestions was 10/02/2009.

Hindustan Times	English	All MP
Dainik Bhaskar	Hindi	Jabalpur
Dainik Naiduniya	Hindi	Gwalior
Dainik Bhaskar	Hindi	Indore
Dainik Jagran	Hindi	Rewa
Dainik Raj express	Hindi	Bhopal

- 1.12 The Commission received only one comment from MPSEB Pensioner's Association, Jabalpur. The Commission held a Public hearing in the matter at Commission's Office on 24th February 2009 giving opportunity to the objector to put forth its objection/suggestion.
- 1.13 The Petitioner submitted that the subject Petition is based on audited accounts of FY 2006-07. The Petitioner has not considered the final opening balance-sheet as notified by the Government of Madhya Pradesh on 12<sup>th</sup> June, 2008, as such, its audited accounts for FY 2005-06 and FY 2006-07 are based on provisional balance sheet for FY 2005-06. The Petitioner submitted that the effect of final opening balance sheet will be considered as and when it is incorporated in its accounts and accordingly true-up would be sought at that time. The Petitioner has made the following submissions in the Petition:
- a) To approve ARR of Rs. 2638.60 crores filed by the Petitioner and permit recovery of true up amount of Rs. 339.99 crores, in six equal monthly instalments.
  - b) To permit recovery of expenses understated / not considered in this Petition e.g. cost, Interest and Finance charges, Depreciation, RoE, etc. at a later stage, if required.
  - c) To condone any inadvertent omissions / errors / shortcomings and permit the applicant to add / change / modify / alter filing and make further submission as may be required at later stages.
- 1.14 MPPGCL in its Petition has claimed to have incurred expenditures more than permitted by the Commission in the MYT Tariff Order for FY 2006- 07. It has also been indicated by MPPGCL that these expenditures were inevitable and were necessary to achieve the target performance. The head-wise break - up of these expenses as filed by the Petitioner is given in the table below:



**Table 4 : Abstract of the Expenses for FY 2006-07 as filed in the true up (Rs. Crore)**

Particulars		Total Cost FY 2006-07 Based on Rates as		
		Approved	Actual	Difference
Variable Cost Elements	Coal	1511.69	1616.15	<b>104.46</b>
	Oil	85.35	70.10	<b>-15.25</b>
	Other	12.65	47.94	<b>35.29</b>
	Total	1609.69	1734.19	<b>124.50</b>
O & M	Total	299.83	325.54	<b>25.71</b>
Interest charges	Interest On Loan	55.54	151.77	<b>96.23</b>
	Interest on W/C	76.37	87.23	<b>10.86</b>
	Total Interest	131.91	239.01	<b>107.09</b>
Other Fixed Cost Elements	Depreciation	108.23	110.28	<b>2.05</b>
	Advance against Depreciation (AAD)	0	49.60	<b>49.60</b>
	Other Charges *	25.41	77.55	<b>52.14</b>
	RoE	129.11	129.11	<b>0.00</b>
	Less: Non Tariff Income	-5.57	-26.68	<b>-21.11</b>
	Total	257.18	339.86	<b>82.68</b>
Total	Cost	2298.61	2638.60	<b>339.99</b>
	Rate p/u	147	167	<b>20</b>

*\* Other Charges includes Cess on auxiliary consumption, rents & taxes, MPERC fees , Terminal Benefits and water charges*

**Table 5 : Abstract of Station wise True - up amount as filed in the true-up (Rs. Crore)**

Station	Total Cost FY 2006-07		
	Approved	Actual	Difference
ATPS Chachai	182.02	205.69	<b>23.67</b>
STPS Sarni	1158.53	1327.48	<b>168.95</b>
SGTPS Birsinghpur	821.01	868.20	<b>47.19</b>
Thermal	2161.56	2401.38	<b>239.82</b>
Bansagar	93.69	127.48	<b>33.78</b>
Pench	11.156	13.75	<b>2.60</b>
Birsinghpur	3.862	4.58	<b>0.72</b>
Bargi	9.459	19.05	<b>9.59</b>
Gandhi Sagar	10.3715	12.67	<b>2.30</b>
Rajghat	8.5119	10.09	<b>1.58</b>
Hydel	137.05	187.62	<b>50.57</b>
AAD (MPPGCL)	0	49.60	<b>49.60</b>
<b>Total</b>	<b>2298.61</b>	<b>2638.60</b>	<b>339.99</b>

### State Advisory Committee

- 1.15 The Commission held the meeting with the State Advisory Committee on January 24, 2009 and 3<sup>rd</sup> June, 2009. The subject Petition was included in the agenda of the meetings for discussion. The members made their observations on the Petition, which have been duly considered while finalising this order.

## CHAPTER 2

### Availability and PLF

#### Thermal Generation

- 2.1 In the Multi Year Generation Tariff Order for FY 2006-07, the Commission had fixed separate tariffs for capacity made available and for energy generated for both the thermal and hydro Generating Stations. For recovery of fixed charges of thermal generating units of the MPPGCL, the targets fixed by the Commission, actual achievement of MPPGCL and extent of fixed charges recoverable are as follows: -

**Table 6 : Normative Vs. Actual Availability for FY 2006-07 (%)**

Name of the Thermal Power Station		For FY 2006-07		
		MPERC Approved (Normative) (A)	MPPGCL Achieved (Actual) (B)	Fixed Cost Recoverable Factor (B/A)
1.	ATPS Chachai	51.36%	50.16%	<b>0.9766</b>
2.	STPS Sarni	77.56%	74.04%	<b>0.9546</b>
3.	SGTPS Birsinghpur	75.50%	74.13%	<b>0.9819</b>

- 2.2 In the true up Petition, the MPPGCL has submitted that the generating units of the Company are considerably old and are on threshold limits of their operational life, due to which the Company was not able to achieve the targets as set by the Commission. Further, non-availability of adequate funds also limited the performance of generating plants. All this resulted in increased partial and forced outages of the units during the period under consideration. Main reasons for lower generation from various units are either failures due to vintage or inadequacy of funds for O&M leading to constrained supply of critical spares.
- 2.3 The MPPGCL has also submitted that major reason for lower availability is tube leakages either in boiler or condenser. Both the problems occur primarily due to vintage. These problems can be rectified by modular replacement of weaker portion. Modular replacement practice is adopted by almost all the stations demonstrating better performance in the country. However, modular replacement is capital intensive. Limitation of funds restricted the MPPGCL to adopt modular replacement. The MPPGCL, therefore, has requested the Commission to consider the actual performance of FY 2006- 07.
- 2.4 MPPGCL apprised the Commission that 30 and 20 MW units of ATPS, Chachai Ph-I have completed their service life. The O&M spares required for maintaining these units are also not available. So these units have now been permanently decommissioned with effect from 01.04.2009.

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**Commission's Analysis on Petitioner's claims**

- 2.5 All the issues mentioned by the MPPGCL regarding performance of the generating units are not new and targets were fixed by the Commission factoring in these constraints. For true-up, the Commission allows the fixed cost recovery on the basis of the target availability fixed for the FY 2006-07 as laid down in the MYT order and not on actual availability as requested by the Petitioner.
- 2.6 The Commission had directed the MPPGCL, in the generation Tariff order of FY 2005-06, true-up order of FY2005-06 and MYT order, to undertake Renovation and Modernization (R&M) of the plants to improve the performance of Thermal Power stations. During the Commission's visit to STPS, Sarni in the month of April 2007, the Commission had again directed MPPGCL to undertake Renovation and Modernization (R&M) of Thermal Power Stations. The same has not been carried out by the Petitioner. The Commission hereby directs the Petitioner to undertake R&M activities on priority basis.
- 2.7 In the MYT generation tariff Regulation for the control period 2006-07 to 2008-09, the Commission had fixed the norms for Target PLF for incentive. A comparative statement of target PLF vis a vis PLF actually achieved by the Petitioner is shown in the Table below.

**Table 7 : Approved Vs. Actual PLF for FY2006-07 true -up**

Thermal Power Stations	MPERC Approved PLF as per Tariff Order (Normative) (A)	MPPGCL Achieved PLF (Actual) (B)	Difference (B-A)
ATPS	51.36 %	50.15 %	-1.21%
STPS	77.56 %	73.62 %	-3.94%
SGTPS	75.50 %	73.60 %	-1.9%

- 2.8 From the table, it is observed that the actual % PLF achieved by the Petitioner is less than the normative % PLF set by the Commission for FY 2006-07 for all three Thermal Power Stations. The Petitioner therefore is not entitled to receive any incentive.

**Gross Generation:**

- 2.9 The Gross Generation from the three thermal power stations for FY 2006-07 as per MYT Order based on target PLFs and actually achieved by Petitioner is given below :-

**Table 8 : Gross Generation as per MYT order Vs Actual (MUs) for FY 2006-07**

Generating Stations	Gross Generation in (MUs)		
	As per tariff order for FY2006-07	Actually achieved by MPPGCL	Difference
ATPS	1305	<b>1252</b>	-53.
STPS	7762	7360	-402
SGTPS	5556	5431	-125

2.10 Actual Auxiliary Energy Consumption of Thermal Power Stations is close to the Normative Auxiliary Consumptions for FY 2006-07. However at STPS, Sarni it is slightly higher than Normative Aux. Consumption. The Commission has considered the normative value of Aux. Consumption in True-up order of FY 2006-07. Both the normative and actual auxiliary consumption are given below :-

**Table 9 : Normative Vs. Actual Aux. Consumption for FY2006-07**

Thermal Power Stations		Aux. Energy Consumption		
		MPERC Approved Normative (A)	Achieved by MPPGCL (B)	Difference (B-A)
1	ATPS Chachai	11.85%	10.26%	-1.6%
2	STPS Sarni	8.84%	8.95%	0.1%
3	SGTPS Birsinghpur	9.62%	8.35%	-1.3%

**Net Generation:**

2.11 The ex-bus (Net) Generation in FY 2006-07 after accounting for the auxiliary consumption as per MYT order and actually achieved by the Petitioner is given below:

**Table 10 : Net Generation as per MYT order Vs Actual (MU) for FY 2006-07**

Power Stations	Net Generation in MUs		
	As per MYT tariff order for FY2006-07	Actually achieved by MPPGCL	Difference
ATPS	1150	1124	-26
STPS	7076	6701	-375
SGTPS	5021	4977	-44

**Hydro Generation**

2.12 The Commission in the MYT Tariff order had fixed capacity index for FY 2006-07. As per the MYT Regulation the fixed cost recovery for hydro power stations will be based on capacity index and 100% recovery is permitted on achievement of normative capacity index and in case of under achievement pro-rata reduction is done. Normative capacity index as fixed in the MYT Tariff order and that actually achieved is given below.

**Table 11 : Normative and Actual Capacity Index in FY 2006-07 (MU)**

Name of the Station	Normative Capacity Index (A)	Actual Capacity Index (B)	Fixed Cost Recoverable Factor (B/A)
Gandhi Sagar	85.00%	93.71%	1
Pench	85.00%	89.16%	1
Bir'pur Hydl	85.00%	99.66%	1
Ban Sagar	85.00%	89.01%	1
Bargi	85.00%	94.22%	1
Rajghat	85.00%	91.75%	1

Note: B/A is taken as 1 if B is greater than A

- 2.13 From the above table, it is evident that in all Hydel Power Stations, MPPGCL has achieved capacity index more than normative. The Commission allows Petitioner to recover full fixed cost for all Hydel Power Stations.
- 2.14 In the MYT order the Commission had directed that the SLDC shall verify the availability figures submitted by the MPPGCL for claiming fixed charges. MPSEB & MP Tradeco were authorised by Government of Madhya Pradesh to procure the entire power generated by the MPPGCL and the procurer has to pay the fixed charges claimed after verification by the SLDC. The Petitioner has submitted the documents certified by SLDC with respect to availability for Thermal Power Stations and Capacity Index for Hydel Power Station.
- 2.15 The details of approved generation from Hydel Power Stations as per MYT tariff order applicable for FY 2006-07 are given in the table below.

**Table 12 : Approved Gross and Net Generation in FY 2006-07 (MU), as per MYT Order**

Hydel Power Station	Projected Generation for FY 2006-07 (MU) as per MYT Order		
	Gross Generation FY 2006-07	Auxiliary Consumption % of Gross Generation FY2006-07	Net Generation FY 2006-07
1 Gandhi Sagar	345.00	0.7%	342.60
2 Pench	315.36	0.9%	312.52
3 Rajghat	90.00	1.0%	89.10
4 Bargi	508.08	1.0%	503.00
5 Bansagar -I (Tons)	1105.00	1.0%	1094.00
6 Birsinghour	45.00	0.9%	44.60
<b>Total</b>	<b>2408.44</b>	<b>0.9%</b>	<b>2385.82</b>

- 2.16 The actual generation from these plants for FY 2006-07 as submitted by MPPGCL is given in the table below:

**Table 13 : Actual gross and net generation in FY 2006-07 (MU)**

Hydel Power Station		Actual Generation as per Petition		
		Gross Generation FY 2006-07	Auxiliary Consumption FY2006-07	Net Generation FY2006-07
1	GandhiSagar	431	1.39%	425
2	Pench	485	1.03%	480
3	Rajghat	134	2.99%	130
4	Bargi	512	2.15%	501
5	Bansagar-I (Tons)	1380	0.87%	1368
6	Birsinghpur	41	4.88%	39
11	<b>Total Hydel</b>	<b>2983</b>	<b>1.34%</b>	<b>2943</b>

### Computation of Variable Cost for True up

#### Station Heat Rate

2.17 The station heat rate as approved by the Commission and as actually achieved by the Petitioner is given in the table below:

**Table 14 : Normative Vs. Actual Station Heat Rate (kCal/kWh) in FY 2006-07**

Particulars		Heat Rate in kCal/ kWh		
		MPERC Approved (A)	Actually Achieved (B)	Difference (B-A)
1	ATPS Chachai	3573	3856	283
2	STPS Sarni	2960	3227	267
3	SGTPS Birsingpur	2825	2997	172

2.18 Actual station heat rate achieved by the MPPGCL is higher as compared to the target fixed by the Commission. The Petitioner has submitted that the poor heat rate is attributable to the inferior quality of coal. The age of the plants and the inadequate maintenance due to paucity of funds are also the factors responsible for poor heat rate. There have been deferments of overhauling, partial loading and frequent stoppages of units. As per MPPGCL, all this has led to the poor heat rate for the MPPGCL thermal power stations.

2.19 The Petitioner has submitted the Station Heat Rate of all three Thermal Power Stations for last five years. The past data of Station Heat Rate is also indicating deteriorating performance of Thermal Power Stations.

### Commission's Analysis.

- 2.20 The Commission in the past has been approving funds for repair and maintenance of the plants and has always encouraged the MPPGCL to carry out required Renovation and Modernisation works. As such the Commission is of the opinion that the issues raised by the Petitioner are operational inefficiencies as also inefficient management. The Commission, accordingly rejects the request of Petitioner to consider actual heat rate and considers the normative Station heat rate as approved in the MYT generation tariff order for FY 2006-07 for this true-up.

### Specific Oil Consumption

- 2.21 MPPGCL in the true- up Petition has stated that secondary oil is required to support thermal generating units during start ups and shut downs for safe operations of the units and for stabilization of unit during partial loading. More the number of partial loadings and shut downs of the units, higher is the secondary oil consumption. However, MPPGCL has reduced its secondary oil consumption considerably from around 14 ml in 2001-02 to 3.55 ml for ATPS Chachai and less then 3 ml/kWh for the rest of its thermal power stations in 2006-07. The Commission observed that the oil consumption for STPS is still higher than the target. However, the Commission appreciates the overall reduction in oil consumption and expects that Petitioner will strive to achieve other performance benchmarks also in future.

**Table 15 : Specific Oil Consumption as approved in the MYT Tariff order (ml/kWh) for FY 2006-07**

Particulars		% Specific Oil Consumption For FY 2006-07	
		MPERC Approved	Actual Achieved
1	ATPS PH1	13.50	8.77
2	ATPS PH2	6.00	2.88
	<b>ATPS Chachai</b>	<b>7.10</b>	<b>3.55</b>
3	STPS PH 1	4.50	6.54
4	STPS PH 2	2.00	1.74
5	STPS PH 3	2.00	1.29
	<b>STPS Sarni</b>	<b>2.66</b>	<b>2.79</b>
6	SGTPS PH 1	2.00	1.84
7	SGTPS PH 2	2.00	0.60
	<b>S GTPS Birsinghpur</b>	<b>2.00</b>	<b>1.17</b>

**Table 16 : Normative Vs. Actual Specific Oil Consumption (ml/kWh) for FY2006-07**

Particulars		Specific oil Consumption		
		MPERC Approved	Actual Achieved	Difference
1	ATPS Chachai	7.10	3.55	<b>-3.55</b>
2	STPS Sarni	2.66	2.79	<b>0.13</b>
3	SGTPS Birsinghpur	2.00	1.17	<b>-0.83</b>

- 2.22 In case of ATPS, Chachai and SGTPS, Birsinghpur the MPPGCL has reduced the specific fuel consumption by 3.55 ml/ kWh and 0.83 ml/ kWh respectively. However, in case of STPS, Sarni the sale is more by 0.13 ml/ kWh.
- 2.23 The Commission, in order to encourage the Petitioner for demonstration of better performance standard in this efficiency improvement parameter allows the normative secondary fuel oil consumption.

**Gross Calorific Value (GCV)**

- 2.24 MPPGCL in its true-up Petition has submitted the Calorific Value of the coal, without specifying, whether it is GCV or NCV of coal.
- 2.25 The Commission had sought clarification from MPPGCL on the following points:
- Confirmation about the calorific value mentioned in the Petition whether it is GCV or NCV on the Net Calorific Value (NCV) of the coal used.
  - Why the calorific value of coal differs for different units within the same complex;
  - The details of test certificates supporting the estimation of weighted average GCV/NCV of coal used in FY 2006-07 for all three generating stations of MPPGCL.
- 2.26 The Petitioner vide its letter No. 07-12/CP-MPPGCL/MPERC/TU-FY07/107 dated 19.02.2009 and in the subsequent meeting held with its Officers on 24<sup>th</sup> Feb.2009 at the Commission's office, submitted that the details of calorific value of coal as mentioned in the true up Petition are based on the existing method of determination of Calorific Value. MPPGCL further informed that the calorific value of coal mentioned in the true-up Petition for FY 2006-07 for the Thermal Power Stations is GCV corrected to total moisture. MPPGCL has estimated the NCV from the above data as per empirical method provided in INDIAN STANDARD 1350 (Part II) – 1970 (1<sup>st</sup> revision). MPPGCL has submitted the month-wise/power house-wise summary of figures to the Commission. MPPGCL has also submitted the source data received from respective sites, in respect of daily coal analysis for the three power stations. In the MYT generation regulation, clause 3.13 indicates that the energy (variable) charges shall cover fuel costs and shall be computed on the basis of gross station heat rate and gross calorific value of primary fuel.
- 2.27 Hence the Commission concludes that the Calorific value filed by the Petitioner in the Petition is Gross Calorific Value of Coal on as fired basis in Kcal/kg. The Commission has considered the same value in this true up exercise.



**Table 17 : Calorific Value of Coal for FY 2006-07**

Power Stations	Calorific Value for FY 2006-07	
	Considered in MYT Tariff Order (kCal/kg)	Actual GCV (kCal/kg)
ATPS Chachai	4490	4550
STPS Sarni	3436	3572
SGTPS Birsinghpur	3863	4029

**Coal Costs**

- 2.28 In the MYT generation tariff order for FY 2006-07 to 2008-09, the Commission had computed the weighted average landed cost considering all sources from which the supply was received and all grades of coal that were received by the three generating stations. The Commission had gone into the data supplied by the Generating Company and found that the prior period adjustment of Rs. 1.067 Crores is shown by MPPGCL towards coal cost, while computing the per unit cost. The Commission does not allow prior period adjustment as the Petitioner has not provided adequate documents to support its claim. The per MT Coal Cost as considered by the Commission in MYT order for FY 2006-07 is given in the below table.

**Table 18 : Coal Cost as per MYT Order for FY 2006-07**

Power Stations	Rs/MT (MYT Tariff Order)
ATPS Chachai	1139.46
STPS Sarni	1357.70
SGTPS Birsinghpur	1189.67

- 2.29 MPPGCL, in the true up Petition has taken the quantity of coal from accounting records of respective power stations. These quantities match with the figures given in the Annual Statement of accounts for FY 2006-07 for 100% capacity of the plants. Coal details of MPPGCL on 100% basis are as tabulated below,

**Table 19 : Coal Quantum consumed in FY 2006-07 as per the Petition**

Particulars	MT
Opening Stock of Coal As on 1 <sup>st</sup> April 2006	717323
Add	Receipts
	11836219
Less	Transit Loss
	118342
	Net receipt
	12435200
Less	Consumption
	11666530
Less	Shortage on physical verification
	128487
Less	Stone, Shale etc
	66780
<b>Closing Stock 31.03.07</b>	<b>573404</b>

2.30 Details regarding Fuel Price as submitted by the Petitioner in the Petition are given in the table below:

**Table 20 : Details of Fuel Prices as per True-up Petition for FY 2006-07**

S No	Particulars	ATPS Chachai	STPS Sarni	SGTPS Birsinghpur	
1	Coal Rate	Cost of Coal (Rs Lakhs).	11975	98486	51154
		Quantity Consumed (LMT)	10.52	66.49	40.85
		Rate Rs/ MT	1138.55	1481.76	1252.26
2	Secondary Oil Rate	Cost of Oil (Rs. Lakhs)	956	4600	1454
		Quantity Consumed KL	4448	20532	6372
		Rate Rs/ kL	21487	22405	22821

2.31 The Commission has calculated the Per-MT coal cost with reference to audited cost and quantity as mentioned in the annual audited account in the following steps.

- (A) The Commission has considered the total coal cost as mentioned in annual account and its power station-wise break-up submitted by the Petitioner in its additional submission.
- (B) The Commission has further inflated the Coal cost of STPS Phase-1 by dividing the audited figure by 0.58 (duly considering the supervision charge), in order to arrive at the 100% coal cost of the station.
- (C) The commission has considered the quantum of coal consumption as submitted by the Petitioner.
- (D) For calculating the Per MT coal cost, the commission has considered the transit loss of coal as submitted by the Petitioner.
- (E) The Commission has apportioned the balance quantum of coal procured during the year among the three stations based on their total coal requirements (Consumption and Transit Loss) in the absence of station wise stock position. The total coal procured during the year is of 11,836,219 MT.
- (F) The total coal receipt by different stations is estimated by adding the quantum of coal consumed, coal lost in transit and notional coal stock available in each station.
- (G) The Per-MT coal cost is calculated by dividing the total cost of individual stations by coal quantum of respective stations.

**Table 21 : Calculation of Average per Metric Ton Coal cost for FY2006-07**

Particulars	Coal Cost		Coal Quantity				Per MT Cost
	Coal Cost as per audited account Excluding Prior period fuel Expenses Rs. In lac	100% Capacity basis Coal Cost Rs. In lac	Coal Consumed as per Petition MT	Transit Loss as per Petition MT	Coal in (Stocks+ Shortages in verification) MT	Total Split of Total Coal Receipt Coal MT	Cost of Coal (Rs/MT)
	(A)	(B)	(C)	(D)	(E)	(F=C+D+E)	(G = B/F)
ATPS	11,954	11,954	1,051,391	393	4,483	1,056,266	<b>1131.75</b>
STPS PH1(60%)	16,086	27,734					
STPS (PH 2&3)	69,831	69,831					
STPS Total (100%	85,979	97,565	6,591,351	57,902	28,338	6,677,592	<b>1461.08</b>
SGTPS)	50,355	50,355	4,024,013	60,939	17,410	4,102,361	<b>1227.46</b>
<b>Total Coal Cost</b>	<b>148,226</b>	<b>159,874</b>	<b>11666,755</b>	<b>119,234</b>	<b>50,231</b>	<b>11836,219</b>	<b>1,350.72</b>

2.32 The Commission has observed that per MT price of the Coal is higher than the price allowed by the Commission in the MYT tariff order. During the course of meeting on 27<sup>th</sup> May 2009 with the officers of the MPPGCL, the Petitioner has submitted that *the weighted average coal rates claimed by MPPGCL for Sarni TPS & SGTPS are about 9.1% & 5.2% respectively higher than the rates approved in MYT order. However for ATPS Chachai no increase is noticed. The Basic price of coal of various grades has been not changed by SECL & WCL during the period FY2006-07. The ATPS Chachai is a small pithead station with in-house rail transportation of MPPGCL - as such rates and coal grades were close to estimation. Whereas the coal supply for STPS Sarni & SGTPS Birsinghpur is being met from various mines having different grades ranging from 'A' to 'F' grades. Therefore, based on the quantities received by MPPGCL, the weighted average rate has increased more than estimation on account of mix of coal grades. Further, the increase for STPS & SGTPS is also on account of change in mix of coal supplied from distant mines (increase in freight cost) than estimated by MPPGCL.*

#### Transit and Stacking losses

2.33 The Commission in the MYT tariff orders and the MYT Regulations had fixed the percentage of normative transit and stacking losses for FY 2006-07. The Commission considers normative transit loss for FY 2006-07 for this true up as given in the table below.

**Table 22 : Normative transit losses as approved in MYT tariff order and allowed in True-up**

Name of the Station	Normative Allowed Transit and Stacking Looses
ATPS	<b>0.3%</b>
STPS	<b>0.8%</b>
SGTPS	<b>1.8%</b>

- 2.34 The Commission has calculated the cost of coal by taking the normative station heat rate, normative auxiliary consumption, normative transit loss, actual net generation, and actual gross calorific value of coal at above estimated Per-MT coal cost.

**Table 23 : Cost of Coal as per True up Calculation for FY2006-07**

Thermal Power Station	Sp. Coal consumption kg/kWh considering normative SHR, actual GCV and normative Sp. Oil consumption	Sp. Coal consumption including normative transit loss kg/kWh	Sp. Coal consumption including normative Aux. cons. Kg/kWh	Per kg. rate as per calculation Rs./kg	Per unit coal cost ex-bus Rs./kWh	Actual Net generation sent out ex-bus (MUs)	Total coal cost allowed by the Commission ex-bus Crore
ATPS	0.76967	0.77199	0.87576	1.13175	0.99115	1124	<b>111.40</b>
STPS	0.82122	0.82784	0.90812	1.46108	1.32684	6701	<b>889.11</b>
SGTPS	0.69620	0.70896	0.78443	1.22746	0.96285	4977	<b>479.21</b>
Total							<b>1479.73</b>

**Secondary Fuel Oil cost**

- 2.35 The Commission in order to validate the cost of oil consumed by the Petitioner has considered the annual audited statement and relevant additional data submitted by the Petitioner. The audited account is prepared for the ownership share of MPPGCL; hence, the Commission has modified the SFO cost of STPS, Ph-1 indicated in audited accounts of MPPGCL to arrive at the 100% capacity based expense. The cost of secondary fuel oil so arrived i.e. Rs.70.10 Crore is matching with the cost claimed by the Petitioner. The SFO cost as validated by commission is given in the table below.

**Table 24 : Validation of SFO Cost as from Audited Account for FY2006-07 (Rs in lakhs)**

Stations	SFO Cost as per audited account	100% Capacity Basis SFO Cost as per audited account
ATPS	955.72	<b>955.72</b>
STPS PH1 (60%)	1,484.02	<b>2,558.66</b>
STPS (PH 2&3)	2,041.48	<b>2,041.48</b>
STPS Total (Share)	3,525.51	<b>4,600.14</b>
Birsingh pur (PH1&2)	1,454.15	<b>1,454.15</b>
<b>Thermal (Share)</b>	<b>5,935.38</b>	<b>7,010.01</b>

- 2.36 The Commission has calculated the cost of oil per Kilolitre considering the 100% capacity basis oil cost (Rs. 70.10 cr.) as derived from the audited account and additional information submitted by the Petitioner on the quantity of oil purchased during the year. The allowed per unit cost so arrived is given in the below table.

**Table 25 : Calculation of Per-KL Oil Cost for FY 2006-07**

Stations	100% Capacity Basis SFO Cost as per audited account (Rs. Lakhs)	Quantity of Oil Bought during the year (KL)	Oil Cost Rs / KL
ATPS	955.72	4745.20	<b>20140.86</b>
STPS Total (Share)	4,600.14	19089.51	<b>24097.76</b>
Birsingh pur (PH1&2)	1,454.15	7132.00	<b>20389.04</b>
<b>Thermal (Share)</b>	<b>7,010.01</b>	<b>30966.71</b>	<b>22,637.26</b>

2.37 The commission has calculated the cost of oil ex-bus by taking the normative per unit oil consumption and normative auxiliary consumption.

**Table 26 : Cost of Oil as Allowed by the Commission during true up for FY 2006-07**

Thermal Power Station	Normative Sp. Oil consumption ml/kWh	Sp. Oil consumption including normative Aux. cons. ml/kWh	Per ltr. rate of oil as per calculation in Rs.	Per unit Oil cost ex-bus in Rs./kWh	Actual Net generation sent out ex-bus (MUs)	Total Oil cost allowed by the Commission ex-bus in Crore
ATPS	7.1	8.05445	20.14086	0.16222	1124	<b>18.23</b>
STPS	2.66	2.91795	24.09776	0.07032	6701	<b>47.12</b>
SGTPS	2	2.21288	20.38904	0.04512	4977	<b>22.46</b>
Total						<b>87.81</b>

### Other fuel related Charges

2.38 In addition to coal cost and oil cost, there are some other fuel related costs incurred by the Petitioner. The Petitioner has submitted the claim of other fuel related cost as given below;

**Table 27 : Other Fuel Cost as claimed by Petitioner for True-up FY 2006-07 (Rs. Lakhs)**

Particulars	ATPS	STPS	SGTPS	Total
Other Fuel Related Costs (Rs. In Lakhs.)	175.28	929.29	545.18	<b>1649.75</b>
Stock Shortage On Physical Verification	20.67	1005.40	733.72	<b>1759.78</b>
Cost of Chemicals(LRs)	86.33	158.75	63.37	<b>308.45</b>
Consumables & Stores	50.94	179.73	0.70	<b>231.37</b>
Entry Tax (L Rs)	18.67	503.09	322.91	<b>844.67</b>
<b>Total Other Cost as claimed in the Petition</b>	<b>351.89</b>	<b>2776.26</b>	<b>1665.88</b>	<b>4794.02</b>

2.39 The Petitioner has claimed the expenses of the Water Charges and Cess on Auxiliary Consumption separately. The Petitioner has not claimed these two expenses under the head of Other Variable Cost.

2.40 The Commission has considered the cost of chemicals, consumables and water charges for Thermal Power stations as part of O&M expenses. Water charges for Hydel power stations are considered under other fixed costs in this true-up.

- 2.41 The other variable cost claimed in the petition covers an additional cost component as “Stock Shortage on Physical Verification”. The Commission has allowed normative transit/ stacking losses hence the Commission has not considered such claim of stock shortage. The Commission allows the other fuel related cost (fuel handling Cost) and Entry Tax only as other variable cost.
- 2.42 The costs claimed by the Petitioner and also recorded in audited accounts have been modified to arrive at 100% capacity of shared station (STPS Phase-1). The cost so arrived matches with the cost claimed by Petitioner. The Commission allows Other fuel Related Cost (Fuel Handling Cost) and fuel Entry Tax as component of Other Fuel Related Cost.

**Table 28 : Other fuel related cost claimed and validated by the Commission for FY 2006-07**

Particulars	ATPS	STPS	SGTPS	Total
Other Fuel Related Costs ( Rs. Lakh) as filed	175.28	929.29	545.18	<b>1649.75</b>
Entry Tax ( Rs. Lakh) as filed	18.67	503.09	322.91	<b>844.67</b>
<b>Total Other Variable Cost Claimed in this True-up</b>	<b>193.95</b>	<b>1,432.38</b>	<b>868.09</b>	<b>2,494.42</b>

- 2.43 The Commission based on the quantum of fuel (Coal & Oil) allowed as per normative parameters, worked out the other variable costs (Fuel Handling and Entry Tax) in same proportion. The other variable cost as allowed is given in the table below:

**Table 29 : Other Fuel related Cost allowed by the Commission for the FY2006-07 (Rs. Lakh)**

Particulars	ATPS	STPS	SGTPS	Total
Other Fuel Related Costs allowed in True-up	161.60	848.31	513.29	<b>1523.22</b>
Entry Tax allowed in True-up	17.09	459.04	303.03	<b>779.16</b>
<b>Total Other Fuel Related Cost approved in this True-up Order</b>	<b>178.69</b>	<b>1307.35</b>	<b>816.32</b>	<b>2302.36</b>

**Total Variable Cost of Generation**

- 2.44 Total Variable Cost of generation as allowed by the Commission is given in table below. The Commission allows total variable cost of Rs. 1590.57 crore for this true up for the FY 2006-07.

**Table 30 : Variable Cost of Generation for FY2006-07 (Rs. Crores)**

Thermal power station	Total coal cost allowed by the Commission in Crore	Total Oil cost allowed by the Commission in Crore	Other fuel related cost allowed by the Commission in Crore	Total variable cost in Crore	Per unit variable cost ex-bus allowed by the Commission (Rs./KWh)
ATPS	111.40	18.23	1.7869	131.43	1.17
STPS	889.11	47.12	13.0735	949.31	1.42
SGTPS	479.21	22.46	8.1632	509.83	1.02
<b>Total</b>	<b>1479.73</b>	<b>87.81</b>	<b>23.0236</b>	<b>1590.57</b>	

## CHAPTER 3

### Computation of Annual Fixed Charges

- 3.1 As per the MYT Regulation of the Commission applicable for control period from 2006-07 to 2008-09, the Annual Fixed Charges consist of Operation and Maintenance (O&M) expenses, Interest on loan capital, Interest on working capital, Depreciation including Advance against depreciation, Return on Equity, Actual expenditure incurred on terminal benefits including pension and prior period expenditure. The O&M Expenses as per Regulations and as mentioned in the MYT order are as follows:-

**Table 31 : O&M Expenses for all Stations for FY2006-07 (Rs. Lakh/MW)**

Generating Stations	FY2006-07
O&M Expenses for Thermal Generating Station	11.57
O&M Expenses for Hydel Generating Station	4.42

- 3.2 The above norms exclude the following expenses, which are claimed by the Petitioner separately;
- Taxes payable to Government or local authorities,
  - Cess on Auxiliary consumption
  - Fee payable to MPERC
  - Pension and terminal benefits payable to its employees.
- 3.3 The O&M expenses include Employee cost, Repair and Maintenance (R&M) expenses and Administrative and general (A&G) expenses. The A&G expenses, Repair & Maintenance, Employee Expenses and other expenses are determined based on power station- wise expenses for 100% capacity operated by MPPGCL. However, the expenses of Ranapratap Sagar and Jawahar Sagar have not been considered since these stations are operated by Rajasthan authorities.

### **Commission's view on O&M expenses:**

- 3.4 The Petitioner (MPPGCL) in its true-up tariff Petition for FY 2006-07 has submitted the following :

*“MPPGCL at various occasions has appraised the Hon'ble Commission that O&M norms as given in MPERC Regulations are inadequate hence, it is not possible for MPPGCL to limit its legitimate expenses within the specified limits”.*



- 3.5 MPPGCL has also submitted in other para of the Petition that *“there are number of issues like payment of DA, review of wages, induction of new employees etc. which were under consideration and already done in FY 2006-07. Some of these legitimate expenses, even though recognized by the Utilities could not be spent due to various reasons like shortage of funds etc”*.
- 3.6 The Petitioner had also submitted a station-wise comparison of the norms approved by the Commission and the actual O&M cost incurred by MPPGCL during FY 2006-07.
- 3.7 The Petitioner, illustrating the comparison of the above two, has tried to put forth the fact that the actual O&M cost in Thermal power stations during FY 2006-07 had been Rs.12.63 lakh per MW as against the prescribed norm of Rs.11.57 lakh per MW and similarly the actual O&M cost in FY 2006-07 for Hydel stations had been Rs.4.63 lakh per MW as against the prescribed norm of Rs.4.42 lakh per MW. The Petitioner has further explained that the increase in O&M expenses is primarily attributable to increase in salary and corresponding DA as per the wage revision, which was beyond the control of the Petitioner. The terms and conditions for determination of generation tariff applicable for the tariff period 2006-07 to 2008-09 provides for payment of O&M expenses on normative basis. Similar provisions exist in transmission tariff also. However, the Commission, while issuing the order dated 19<sup>th</sup> March, 2008 on True-up of Transmission Tariff for FY 2006-07 had approved the actual O&M expenses mentioning the following in paragraph 5.13,
- 3.8 *“The Commission understands that the increase in the employee expenses during FY 2006-07 was due to the wage revision and revision in the Dearness Allowances as declared by the State Government. The Petitioner has no control over such decisions. This is an uncontrollable factor for the Transmission Licensee. Hence, the Commission approves the revised employee expenses of Rs.98.58 Crores. But at the same time, the Commission has to safeguard the interest of the consumers. The MPPTCL should, therefore, ensure that rise in the employee cost is compensated by increased productivity of the employees”*.
- 3.9 Thus, the Commission had consciously allowed O&M expenses based on actuals in the Petition for true-up of transmission tariff for the year 2006-07. The same logic holds good for O&M expenses of MPPGCL. Further, the three Distribution Licensees have filed Petitions for true-up of their aggregate revenue requirement (ARR) for the year 2006-07 and it has been observed that their actual O&M expenses are lower than the expenses worked out on normative basis.
- 3.10 Taking a comprehensive view of the actual O&M expenses vis-à-vis normative expenses of MP Power Transmission Co. Ltd., MP Power Generating Co. Ltd and the three Distribution Companies and also keeping in view that these O&M expenses have employee expenses as the major component and further that employee wages are decided common for all Companies., it is seen that the actual expenses are more than the normative expenses in the cases of Generation and Transmission Companies, while these are less than the normative in the case of Distribution Companies.



- 3.11 The Commission is of the view that the norms prescribed by the Commission for O&M expenditure while framing the Regulations on terms and conditions of tariff for Generation, Transmission and Distribution Companies might have been understated for the Generation and Transmission Companies and overstated for the Distribution Companies. This could be due to the fact that the Regulations on terms and conditions of tariff were framed just after unbundling of power utilities from erstwhile MPSEB and the actual break up of total O&M expenses for generation, transmission and distribution segments was not available. Therefore, the base figures for computation of norms for O&M expenditure were taken from the common base of erstwhile MPSEB and apportioned among generation/transmission/distribution segments on the basis of information made available at that time. The Commission has decided to follow a consistent approach of allowing actual expenditure after exercising the prudent check.

### Repair and Maintenance Expenses

- 3.12 The R&M Expenses as claimed by the Petitioner in this true-up Petition and as approved by the Commission are given in the table below.

**Table 32 : R&M Expenses claimed by Petitioner (Rs. Lakh)**

Power Stations	MPPGCL Share R&M	100% Capacity basis	S&I + HO	Total R&M expenses on 100% Capacity Basis approved by the Commission in this True-up
Chachai (PH 1&2)	2,116.08	2,116.08	2.14	<b>2,118.23</b>
Sarni PH1 (60%)	1,412.37	2,435.12	8.45	<b>7,462.63</b>
Sarni (PH 2&3)	5,019.06	5,019.06		
Birsingh pur (PH1&2)	3,957.69	3,957.69	6.21	<b>3,963.90</b>
G. Sagar (50%)	17.18	36.17	0.85	<b>37.02</b>
Pench (66.67%)	30.36	46.71	1.18	<b>47.89</b>
Birsingh pur Hydro	4.53	4.53	0.15	<b>4.67</b>
Ban Sagar	354.64	354.64	2.99	<b>357.63</b>
Bargi	46.99	46.99	0.67	<b>47.66</b>
Rajghat (50%)	10.11	21.28	0.33	<b>21.61</b>
J.Sagar (50%)	20.09		-	
R.P Sagar (50%)	74.57		-	
Marhi khera	9.73	9.73	0.17	
S&I + HO	23.14			
<b>MPPGCL (Share-TB)</b>	<b>13,096.54</b>	<b>14,048.00</b>	<b>23.14</b>	<b>14,061.25</b>

- 3.13 The amount of Rs. 130.96 Crores towards R&M expenses is mentioned in the audited accounts of the Company for FY 2006-07 on share basis. In this true up Petition the Petitioner has claimed Rs. 141.98 Cr. on 100 % capacity basis. The Commission had sought the station wise break up of the audited figures from the Petitioner in order to validate R&M expenses. The Petitioner has furnished these details on 24.2.2009.

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- 3.14 The Commission has estimated the R&M expenses of stations operated by the Petitioner on 100% capacity basis. The Head Office (HO) Expenses of Rs.23.14 Lakhs have been apportioned to all the stations of MPPGCL on MW-Days of operation basis by the Commission. The Commission has not considered the R&M expenditure for power stations situated outside the State i.e. Jawahar Sagar and Rana Pratap Sagar. The claims regarding Madhikheda, if any are to be filed separately by the MPPGCL Hence, R&M expenses for Madhikheda Power Station are also not considered in this true up.
- 3.15 The Commission has observed that Prior period expenses of Rs. 138.07 Lakhs have also been claimed in this True-up Petition. The Petitioner was asked to support and justify its claim of prior period expenses during the course of discussions held on 24.02.09. Despite the opportunity given to the petitioner, no satisfactory response was received from the petitioner. The Commission has therefore, not considered the prior period expenses shown in the audited accounts in this true up.
- 3.16 The Commission thus, allows Rs. 14061.25 Lakh of R&M expenditure in this true up Order.

#### **A&G Expenses**

- 3.17 The amount of Rs. 3070.23 Lakhs towards A&G expenses is mentioned in audited accounts on share basis. In this true up Petition, the Petitioner has claimed Rs. 2896 Lakhs on 100 % capacity basis. The Commission had sought the station wise break up of the audited figures from the Petitioner submission in order to validate A&G expenses. The Petitioner has submitted these details on 24.2.2009.
- 3.18 The A&G figures mentioned in the annual audited accounts of MPPGCL includes other expenses which have to be claimed separately under other fixed cost are given in the list below;
- Rent & Taxes incurred by individual Stations
  - Rent & Taxes incurred by Head Office
  - MPERC Fees
- 3.19 The Commission has recomputed the A&G expenses of all stations operated by the Petitioner on 100% capacity basis. The Commission has not considered the A&G expenditure for power stations situated outside the State i.e. Jawahar Sagar and Rana Pratap Sagar. The Madhikheda claim, if any is to be lodged separately by the MPPGCL and A&G expenses for Madhikheda Power Station is also not considered by the Commission.
- 3.20 The computation is based on the following steps;
- a) Additional data submitted Audited account of MPPGCL indicates expenses of Rs.3070.23 Lakh spent on account of MPPGCL's share.

- b) The shared stations' A&G expenses were further pro-rated to arrive at the 100% capacity basis A&G expenses.
- c) Expenses on Rent and Taxes for each station were worked out from the additional submission by the Petitioner.
- d) Expenses on Rent and Taxes incurred by HO were allocated to all the stations operated by MPPGCL on MW-Days of operation basis. These expenses were not allocated to Ranapratap and Jawahar Sagar as those are not operated by MPPGCL.
- e) Station wise A&G was calculated by excluding the station wise Rent and Taxes from the 100% capacity basis A&G expenses.
- f) MPERC Fees of Rs. 122 Lakhs and rent and taxes of Rs. 0.46 Lakhs paid by HO are excluded from the total HO A&G expenditure of Rs 1652.86 Lakhs. MPERC fees and rent and taxes which are excluded from A&G expenses have been considered under other fixed cost.
- g) The common expenses by MPSEB amounting to Rs 13.81 crores are not allowed. The Commission had not been allowing these expenses to the Distribution Companies also since the erstwhile MPSEB had already been disintegrated into successor Companies and one of them has been entrusted with the responsibility of a Trading Company i.e. MP Power Trading Company.
- h) The net A&G expenses remains as Rs. 1530.39 Lakhs from the above HO A&G expenses has been allocated to all the stations being operated by MPPGCL.
- i) The addition of individual station wise A&G expenses and allocated HO A&G expenses is allowed as the 100% share basis A&G expenditure.

3.21 The detail of A&G expenses claimed is given in table below;

**Table 33 : A&G Expenses Claimed in True-up Petition (Rs. in Lakhs)**

Power Stations of MPPGCL	MPPGCL Share A&G	100% Capacity Basis	Station wise Rent & Taxes 100% capacity	HO Rent & Taxes	Station wise A&G excluding the Rent & Taxes	MPERC Fees	MPSEB A&G	HO Expenses Allocation on MW Basis	100% share A&G Expenses of 9 stations
	(A)	B=(A/ %Share)	(C)	(D)	E=(B-C)	(F)	(G)	(H)	I = (E+H)
ATPA	105.69	105.69	0.16	0.04	105.53			13.82	<b>119.35</b>
STPS PH1	97.22	167.63	6.93		160.70				
STPS (PH 2&3)	308.91	308.91	18.29		290.62				
STPS Total	406.13	476.53	25.22	0.17	451.31			54.43	<b>505.74</b>
Birsinghpur	490.01	490.01	7.92	0.13	482.09			40.02	<b>522.11</b>
Malwa	-	-	0.61		(0.61)				

G. Sagar	28.65	60.31	1.28	0.02	59.03			5.48	<b>64.51</b>
Pench	12.27	18.87	(0.00)	0.02	18.88			7.62	<b>26.50</b>
Birsinghpur Hy.	7.85	7.85	-	0.00	7.85			0.95	<b>8.80</b>
Ban Sagar	213.15	213.15	0.71	0.06	212.44			19.29	<b>231.74</b>
Bargi	23.51	23.51	0.42	0.01	23.09			4.29	<b>27.38</b>
Rajghat	7.68	16.17	0.25	0.01	15.92			2.14	<b>18.06</b>
J.Sagar	24.31			-	-			-	-
R.P Sagar	24.39			-	-			-	-
Marhi khera	73.73	73.73	1.09	0.00	72.63			1.10	
Total HQ	1,652.86			0.4663	-	122.00	1,381.25	149.14	
<b>MPPGCL Total</b>	<b>3,070.23</b>								<b>1,524.19</b>

- 3.22 The final A&G expenses allowed in this true-up is of Rs. 1524.19 Lakhs.
- 3.23 The Rent & Taxes so segregated as mentioned in column C and D of is separately claimed in this Petition by the petitioner. The rent and taxes has been discussed appropriately in subsequent part of this Order.
- 3.24 Also, it has been noticed that an amount of Rs. 122 Lakhs spent towards MPERC charges by HO against A&G expenses has been claimed separately under other fixed cost.

### Employee Expenses

- 3.25 The Commission in order to validate the audited account figure of Rs 17629.49 Lakhs of Employee Expenses mentioned in audited account with the 100% capacity based claim in this true-up, sought the station wise break up of the audited figure from the Petitioner. The Petitioner has submitted the details of station wise break up on 24.02.2009.
- 3.26 The Commission has estimated employee expenses on the 100% capacity basis for all the stations operated by the Petitioner. The HO Expenses have been apportioned to all the stations operated by MPPGCL after excluding Terminal benefit of Rs. 2921.76 Lakhs to arrive at the 100% employee expenses of stations operated by the Petitioner. The Commission has not considered the Employee expenses for power stations situated outside the State i.e. Jawahar Sagar and Rana Pratap Sagar. The Madhikheda claim, if any is to be filed separately by the MPPGCL hence, the employee expenses for Madhikheda Power Station are also not considered by the Commission.
- 3.27 The Commission has excluded the incentive from the employees expenses indicated in the audited account since the incentive is not an uncontrollable expense to be allowed over and above the normative O&M expenditure. The incentive if any, is to be paid from the incentive earned by the Company by out performing the targets.

- 3.28 The State Government of MP, through the notification on transfer scheme of 13.06.2005 transferred the responsibility of meeting the pension liabilities of all Pensioners to MPPTCL. Since these expenses had been allowed in the True-up of Transmission Tariff for FY 2006-07, these expenses are not allowed in this true-up.
- 3.29 The detailed Employee expenses claimed by the Petitioner and those being allowed by the Commission are given in the table below;

**Table 34 : Employee Expenses as Claimed in True-up Petition and approved by the Commission (Rs. Lakhs)**

Stations	Audited Figure (TB)	Incentive as per audited accounts	Employees cost excluding incentive	100% Operative Capacity	HO Employee Cost (net off HO Terminal Benefit and Emp exp capitalised )	Total Employee Cost for 100% Capacity Approved by the Commission in this true-up
Chachai (PH 1&2)	2,219.24	34.21	2,185.03	2,185.03	198.19	2,383
Sarni PH1 (60%)	1,141.40	17.60	1,123.80	1,937.59		
Sarni (PH 2&3)	4,412.55	68.03	4,344.52	4,344.52		
Sarni Total (Share)	5,553.96	85.63	5,468.32	6,282.11	780.79	7,063
Birsingh pur (Total)	2,748.66	42.38	2,706.28	2,706.28	574.06	3,280
G. Sagar (50%)	138.79	2.14	136.65	287.68	78.59	366
Pench (66.67%)	124.41	1.92	122.49	188.45	109.34	298
Birsingh pur Hydro	48.18	0.74	47.44	47.44	13.67	61
Ban Sagar	1,081.38	16.67	1,064.71	1,064.71	276.78	1,341
Bargi	231.82	3.57	228.25	228.25	61.51	290
Rajghat (50%)	71.58	1.10	70.48	148.37	30.75	179
J.Sagar (50%)	122.89	1.89	121.00		-	-
R.P Sagar (50%)	154.11	2.38	151.73		-	-
Marhi khera	59.76	0.92	58.84	58.84	15.73	
Total HQ	5,074.70		5,074.70			
<b>MPPGCL</b>	<b>17,629.49</b>		<b>17,435.91</b>		<b>2,139.40</b>	<b>15,262</b>

The Commission allows **Rs. 15,262** Lakhs of Employee expenses as mentioned in the above table.

#### Cost of Chemical for Thermal Stations

- 3.30 As discussed earlier, the Cost of Chemical spent in thermal generating stations is composite part of O&M cost, the Commission allows this cost under the O&M costs claimed by Petitioner.

- 3.31 The cost of Chemicals of Rs. 308.44 Lakhs claimed in this Petitions is given in the table below;

**Table 35 : Cost of Chemicals****(Rs. Lakhs)**

<b>Stations</b>	<b>Cost of Chemical as per audited account</b>	<b>100% Capacity Basis Cost of Chemicals as per audited account</b>
Chachai (PH 1&2)	86.33	<b>86.33</b>
Sarni PH1 (60%)	27.14	<b>46.79</b>
Sarni (PH 2&3)	111.96	<b>111.96</b>
Birsingh pur (PH1&2)	63.37	<b>63.37</b>
<b>Total Thermal</b>	<b>288.79</b>	<b>308.44</b>

**Consumable and Stores for Thermal Stations**

- 3.32 As discussed earlier, the Cost of Consumable and Stores spent in thermal generating stations is integral part of O&M cost, the Commission allows this cost and adds to the O&M cost claimed by Petitioner.
- 3.33 The cost of Consumable and Stores of Rs. 231.37 Lakh claimed in this Petitions is given in the table below;

**Table 36 : Consumable and Stores****(Rs. Lakh)**

<b>Stations</b>	<b>Consumables &amp; Stores as per audited account</b>	<b>100% Capacity Basis Consumables &amp; Stores as per audited account</b>
Chachai (PH 1&2)	50.94	<b>50.94</b>
Sarni PH1 (60%)	31.97	<b>55.12</b>
Sarni (PH 2&3)	124.61	<b>124.61</b>
Birsingh pur (PH1&2)	0.70	<b>0.70</b>
<b>Thermal</b>	<b>208.22</b>	<b>231.37</b>

**Water Charges**

- 3.34 As discussed earlier, the Cost of water charges incurred for thermal generating stations is composite part of O&M cost, the Commission allows this cost and adds to the O&M cost claimed by Petitioner.
- 3.35 The cost of water charges pertains to all thermal generations as tabulated below, has been considered as a composite part of O&M expenses.

**Table 37 : Water charges of Thermal Station considered in O&M Cost (Rs. Lakh)**

SR. No	Particulars	MPPGCL Actual Cost Claimed in True-up
1	ATPS Chachai	15.63
2	STPS Sarni	110.92
3	SGTPS Birsinghpur	31.87
	<b>Thermal</b>	<b>158.42</b>

**Operation and Maintenance Expense**

- 3.36 The Commission is of the opinion that the cost of Chemicals, Consumable and Stores and Thermal stations' Water Charges are integral part of O&M Expenses. Hence, these expenses have been clubbed with Employee, A&G and R&M expenses to arrive at the total O&M Expenses for the purpose of this true up. is given in table below.

**Table 38 : Actual O&M Expenses allowed by the Commission (Rs. Lakh)**

Stations	A&G	Emp	R&M	Chemicals	Consumable and Stores	Water Charges	Actual O&M
Chachai (PH 1&2)	119	2,383	2118	86	51	16	4,773
Sarni Total (100%)	506	7,063	7463	159	180	111	15,482
Birsinghpur	522	3,280	3964	63	1	32	7,862
Thermal (100%)	1147	12,726	13545	308	231	158	28,115
G. Sagar (100%)	65	366	37				468
Pench (100%)	27	298	48				373
Birsingh pur Hydel.	9	61	5				75
Ban Sagar	232	1,341	358				1,931
Bargi	27	290	48				365
Rajghat (100%)	18	179	22				219
Total Hydel	377	2,536	516				3,429
Total MPPGCL	1524.00	15262.0	14061.0				31544.0

- 3.37 A comparison of actual O&M expenses allowed by the Commission with the Normative O&M expenses is given in table below;

**Table 39 : Actual vs. Normative O&M Expenses****(Rs. Lakhs)**

SR. No	Stations of MPPGCL	Actual O&M	Normative O&M	Difference
1	Chachai	4,773	3355	1,418
2	Sarni	15,482	13219	2,263
3	Birsinghpur	7,862	9719	-1,857
	Thermal Total	28,115	26293	1,822
4	G. Sagar	468.28	508	-40
5	Pench	372.79	707	-334
6	Birsinghpur Hydro	75.11	88	-13
7	Ban Sagar	1,931	1790	141
8	Bargi	364.76	398	-33
9	Rajghat	219.10	199	20
	Total Hydel	3,429	3691	-262
	Total MPPGCL	31,544	29984	1,560

- 3.38 The Commission taking a view as discussed in paragraphs 3.4 to 3.11 above approves the actual O&M expenditure incurred by MPPGCL during FY 2006-07 in this true up.

### Depreciation

- 3.39 In the Generation Tariff order dated 25th January 2006, the Commission had considered an Opening Gross block of Rs. 4417.20 Cr. No asset addition was envisaged during FY 2005-06 and FY 2006-07.
- 3.40 MPPGCL vide its letter no. 07-12/CP-MPPGCL/MPERC/TU-FY-07/107, dated 19/02/2009 has claimed the same depreciation for the year FY 2006-07 as approved by the Commission in the MYT Tariff Order for FY 2007-09. Therefore, the Commission allows the same depreciation amount of Rs. 108.23 Crores in this true up as claimed by MPPGCL as given in the table below:

**Table 40 : Depreciation as approved in MYT Order and claimed in true-up****(Rs. Lakhs)**

Sr. No	Particulars	Depreciation for FY2006-07	
		Approved in MYT Order by MPERC	MPPGCL true-up filing
1	ATPS Chachai	141	141
2	STPS Sarni	552	552
3	SGTPS Birsinghpur	6875	6875
	Thermal	7568	7568
4	Bansagar	2587	2587
5	Pench	114	114



6	Birsinghpur	133	133
7	Bargi	194	194
8	Gandhi Sagar	8	8
9	Rajghat	219	219
	Total Hydel	3255	3255
	<b>Total MPPGCL</b>	<b>10823</b>	<b>10823</b>

### Advance against Depreciation

3.41 MPPGCL has claimed the advance against depreciation for Rs. 49.6 Crores. According to MPPGCL, the loan liability as on 1st April 2006 is Rs. 1386 Crores and repayment liability against this loan is of Rs. 159 crores for FY 2006-07.

**Table 41 : Advance against depreciation as per filing of MPPGCL (Rs Crores)**

Loans	Gross Loan amount at the beginning of the year (2006-07) (Rs Cr.)	Classification as per MPERC	Loan Repayment due during the year
PFC	308.1	Long Terms Loans	103.58
PFC (New Loans)*	27.48		
LIC	371.66		0
CSS	0.34		0.04
<b>Subtotal (I)</b>	<b>707.58</b>		<b>103.62</b>
LIC	116.34	Working capital Loans	0
REC	303.64		30.36
MPSEB	258.87		25.9
<b>Subtotal (II)</b>	<b>678.85</b>		<b>56.26</b>
<b>Total (I + II)</b>	<b>1386.43</b>		<b>159.88</b>
Depreciation during the year			110.28
Balance amount to be paid by MPPGCL			49.6

3.42 The Commission has gone into the computation of Advance against depreciation considering loan outstanding as on 1 April 2006 and repayment liability in FY 2006-07. On scrutiny of the filing by the Petitioner, the Commission has observed the following:

**Table 42 : AAD as per commission's analysis (Rs Crores)**

<b>Loans</b>	<b>Gross Loan amount at the beginning of the year (2006-07) (Rs Cr.)</b>	<b>1/10 Ceiling on loan amount</b>
PFC	316	32
PFC (New Loans)*		
LIC	319	0
CSS	0.34	0.03
<b>Subtotal (I)</b>	<b>636</b>	<b>32</b>
LIC	100	0
REC	304	30
MPSEB	233	23
<b>Subtotal (II)</b>	<b>637</b>	<b>54</b>
<b>Total (I + II)</b>	<b>1272</b>	<b>85</b>
Depreciation during the year		<b>108</b>
Balance amount to be paid by MPPGCL		<b>-23</b>

- 3.43 As per the regulations 2.20 of the determination of Generation Tariff, Advance against depreciation shall be permitted for any new project in addition to allowable depreciation and the AAD shall be equal to the loan repayment amount subject to a ceiling of 1/10<sup>th</sup> of loan amount minus depreciation as per schedule and also Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.
- 3.44 The claim of AAD in the Petition is not found admissible since the provision is for new Projects only. Even otherwise also as per the regulations on the determination of Generation Tariff the repayment liability is limited to 1/10 of loan amount, the repayment liability of MPPGCL is limited to 85 Crores. Depreciation claim by MPPGCL is of Rs 108 Crores, which is more than the repayment liability. Thus the claim of AAD is not tenable.
- 3.45 As per Annexure –D (ii) of the supplementary information filed by MPPGCL vide letter no. 07-12/CP-MPPGCL/MPERC/Tu-FY07/107 dated 19.02.2009 on LIC loan schedule, there was no repayment scheduled in FY 2006-07, therefore Commission has not computed 1/10<sup>th</sup> ceiling on LIC loan amount.
- 3.46 In view of above analysis, no advance against depreciation is being allowed.

## Interest and Finance Charges

### Interest on Loan

- 3.47 The MPPGCL has filed the information with regard to the opening and closing balances of the loan in the Petition. MPPGCL has also submitted its Audited Statements of Accounts for FY 2006-07.
- 3.48 According to the Audited Statements of Accounts for FY 2006-07 the total loan liability as on 31/03/2007 was Rs. 2769.44 Crores out of which the secured loan was Rs.1.23 Crores and unsecured loan was Rs. 2768.21 Crores. This loan liability includes Rs.21.34 Crores of interest accrued and due and Rs. 23.53 Crores of principal repayment due. The Commission can not consider any default in payment of interest or principal repayment to be included as part of the loan amount. Thus the balance amount of unsecured loan as on 31/03/2007 outstanding at the end of financial year is restricted to Rs. 2723.33 Crores excluding Rs. 1.23 Crore of secured loan for Madhikheda project.

**Table 43 : Loan as on 31/3/07 as per Audited Accounts**

Loan	Rs. in Crores
Secured Loan*	1.23
Unsecured Loan	2768.21
Total	2769.44
Less : Interest due	21.34
Less : Principal due	23.54
Less : Secured loan*	1.23
Net Unsecured Loan	2723.33

\*Secured loan is for Madhikheda HEP unit 3 for which MPPGCL has filed separate Petition

- 3.49 Taking the position from 01/04/2006 to 31/03/2007 the Commission brought out the source wise opening balance of loans, scheduled repayment during 2006-07 and the additional loan availed during 2006-07. The status as on 31/03/2007 as per the audited accounts and also the break up as filed by the Petitioner is as given below:

**Table 44 : Break up of Unsecured Loan**

(Rs. Crores)

FY2006-07	Loan 1 LIC	Loan 2 PFC	Loan 3 REC	Loan 4 MPSEB	Loan 5 CSS	Total
Amount of loan outstanding as at the beginning of the financial year.	419.14	1559.91	303.64	233.10	0.04	2515.70
Over dues at beginning of year	41.32	0.00	0.00	5.16	2.13	48.60
Scheduled repayment of principal during the financial year.	0.00	103.59	30.36	25.90	0.04	159.89
Actual repayment of principal during the financial year.	41.32	97.40	15.18	31.06	0.00	184.96
Due at the year end	0.00	6.18	15.18	0.00	2.17	23.54
Drawls during the financial year	0.00	367.52	0.00	0.00	0.00	367.52

Outstanding loan as at the end of financial Year.	419.14	1823.84	273.27	207.20	0.00	2723.33
Interest overdue at beginning of year	23.88	0.00	0.00	0.00	0.48	24.36
Scheduled payment of interest during the financial year.	35.81	189.52	26.23	27.97	0.0028	279.53
<b>Actual payment of interest during the financial year.</b>	<b>59.64</b>	<b>172.92</b>	<b>13.60</b>	<b>27.97</b>	<b>0.00</b>	<b>274.14</b>

**Table 45 : Allocation of linked and unlinked loan****(Rs. Crore)**

Particular	LIC	PFC	REC	MPSEB	CSS	Total
<b>Outstanding loan as on 31/3/2007</b>	<b>419</b>	<b>1824</b>	<b>273</b>	<b>207</b>	<b>0.00</b>	<b>2723</b>
Linked	319	1824				2143
Unlinked	100		273	207		581
<b>Total</b>	<b>419</b>	<b>1824</b>	<b>273</b>	<b>207</b>		<b>2723</b>
<b>Interest Claimed</b>	<b>35.81</b>	<b>61.76</b>	<b>26.23</b>	<b>27.97</b>	<b>0.0028</b>	<b>151.77</b>
Linked interest	27.23	27.97	0	0	0.0028	55.20
Unlinked interest	8.59	33.79	26.23	27.97	0	96.58

- 3.50 As on 31.3.2007 PFC Linked loan is of Rs. 1824 Crores, out of which Rs. 1555 Crores belongs to 500 MW SGTPS extension, 210 MW ATPS extension, Madhikheda and Jinha, Bansagar. Separate Petitions will be filed by the MPPGCL for these projects. Therefore, PFC linked amount is Rs. 269 Crores (1824-1555) for the purpose of true up. The total linked loan amount left is Rs. 588 Crores [269 (PFC)+319 (LIC)]. PFC Interest claimed is exclusive of loans for which MPPGCL is filing separate Petitions.
- 3.51 The Petitioner in its supplementary submission dated 19.02.2009 has submitted the details regarding principal, interest and interest on interest of PFC loans wherein the interest claimed is worked out as Rs 61.76 Crores. Out of which Rs. 33.80 Crores of interest belongs to unlinked loan liability of R&R Korba, now situated in Chattisgarh as may be seen from annexure D (ii) of the supplementary submission by MPPGCL. However, this loan liability is not depicted in the audited accounts of MPPGCL for FY 2006-07. The Commission has further observed from Schedule 4 of the audited accounts that Rs. 1559.90 Crores is outstanding at the beginning of the year against PFC loan while this amount has not been included in any loan liability on account of R&R Korba. The Commission had sought the clarification from MPPGCL vide letter no. 392 dated 18.02.2009 on Chattisgarh loan. MPPGCL could not clarify the queries in this regard in its submission as well as during the course of discussions held in the Office of the Commission on 24.02.2009. Since this loan amount is not recognized in the audited accounts of MPPGCL for 2006-07 and also these amounts have not been recorded in earlier audited accounts, hence this loan has not been considered by the Commission for this true up order.

- 3.52 Such loans which could not be tagged with specific projects have been termed as generic/unlinked loans. The Commission had considered these loans as working capital loans in earlier Order. However on the basis of filing no. 07-12/CP-MPPGCL/MPERC/TU-FY-07/107, dated 19/02/2009 by MPPGCL, the Commission agreed with the petitioner that unlinked loans have also been utilized for creation of fixed assets. Therefore interest should be allowed on unlinked loan to the extent it is established that these loans were used for asset creation.

**Table 46 : Break up of linked and unlinked loan (Rs. in Crores)**

Loan	Amount
Linked	
a) (PFC+LIC) (269+319)	588
b) PFC*	1555
Unlinked	
b) REC+LIC+MPSEB	580
<b>Total</b>	<b>2723</b>

\* SGTPS extension 500 MW and ATPS extension 210 MW, Madhikheda and Jinha for which MPPGCL file separate Petition

- 3.53 The status of gross fixed assets & capital work in progress and their possible source of funding, especially the unlinked loan amount being utilized for creation of fixed assets are summarized as under:

**Table 47 : Loan fund utilization for capital assets creation (Rs. in Crores)**

Linked/Unlinked	Particular	Amount
.	<b>Capital Work in Progress as on 31/3/2007 from Balance Sheet</b>	2397
(linked)	Loan for CWIP	1555
	Equity for CWIP (balance equity)	842
	<b>Gross Fixed Assets as on 31/3/2007 from Balance Sheet</b>	4748
	Equity employed in Fixed Assets (Total share capital – CWIP equity i.e. (2024 - 842)	1182
PFC+LIC (Linked)	Project specific loan	588
	Loan Employed in Fixed Assets = Total loan – CWIP Loan i.e. (2723** - 1555)	1168
PFC+LIC (Linked)	Less: project specific Loan	588
Generic Loan (Unlinked)	Unlinked Loan	580

\*share capital of Rs. 2024 crore from balance sheet \*\* loan amount as indicated in table no 47.

- 3.54 It is seen from the above table the total CWIP of Rs.2397 Crores as indicated in the audited Statement of Account for FY2006-07, is funded from loan of Rs. 1555 crore and balance from equity of Rs. 842 Crores (2397-1555).

- 3.55 The loan outstanding as on 31/03/2007 is 2723 Crores as shown in table 44. The loan amount infused in CWIP is of Rs. 1555 Crores, thus the loan availed by the MPPGCL for completed projects would amount to Rs.1168 Crores (2723-1555).
- 3.56 As the Commission has arrived at an amount of Rs. 1168 Crores for the completed projects, this completed projects should have been funded from the linked/project specific loan of Rs. 588 Crores, unlinked loan of Rs 580 Crores.
- 3.57 For the purpose of determination of possible sources of funding, the Commission has derived that equity employed in completed project is of Rs. 1182 crore (2024-842), However, it may be mentioned that the Commission in its order dated 25th January 2006 had computed the equity employed in the completed projects and agreed with the contention of the Generating Company that out of total equity of Rs. 1278 Crores only Rs. 929.57 Crores had been employed in the completed project. Since the last order no changes have taken place in the opening gross block of fixed assets and no capitalization has been claimed by MPPGCL. Therefore for the purpose of determination of return on equity commission has considered only 929.57 crore of equity employed in the completed projects.

**Table 48 : Break up of unlinked loan utilized for completed projects and interest (Rs Crores)**

Particular	LIC	REC	MPSEB	Total
Linked loan as on 31/3/07	319			
Unlinked loan as on 31/3/2007	100	273	207	580
Linked interest	27.23	0.00	0.00	27.23
Unlinked interest	8.59	26.23	27.97	62.78
Total interest	35.81	26.23	27.97	90.01

- 3.58 Unlinked loan of Rs. 580 Crores is completely utilized for completed projects, therefore the Commission has allowed Rs. 62.78 Crores of actual interest on unlinked loan of Rs. 580 Crores as given in table below:

**Table 49 : Interest allowed on unlinked Loan (Rs. Crores)**

Particular	Principal	Repayment	Principal	Principal	Interest Allowed
	Opening Balance as on 1 April 2006		Closing Balance as on 31 March 2007	Average	
LIC	100	0	100	100	8.59
REC	304	30	273	288	26.23
MPSEB	233	26	207	220	27.97
Total	637	56	580	608	62.78

- 3.59 In respect of project specific loans, the Commission has considered the opening balance as on 01/04/2006 and the closing balance as on 31/03/2007.

**PFC Loan****Table 50 : Unsecured PFC loan as per balance sheet for FY 2005-06 & 07 (Rs. Crore)**

Particular	FY2005 -06	2006 -07
Amount of loan outstanding as at the beginning of the financial year.	1120.50	1559.91
Over dues at beginning of year	0.00	0.00
Scheduled repayment of principal during the financial year.	76.67	103.59
Actual repayment of principal during the financial year.	76.67	97.40
Drawls during the financial year	516.08	367.52
Due for current year	0.00	6.18
Amount due at the beginning	0.00	0.00
Outstanding loan as at the end of financial year.	1559.91	1823.84
Scheduled payment of interest during the financial year.	87.85	189.49
<b>Actual payment of interest during the financial year.</b>	<b>87.85</b>	<b>172.92</b>

3.60 PFC loan outstanding as on 31/3/07 was Rs. 1823.84 Crores. This loan amount includes loan for SGTPS extension 500 MW and ATPS extension 210 MW, Madhikheda and Jhinna for which MPPGCL is filing separate Petition. The position of PFC loan other than that relating to aforesaid projects is as follows:

**Table 51 : PFC loan Schedule for FY 2006-07**

Particular	Rs. in Crores
Opening balance as on 1 April 2006	316.29
Over dues at beginning of year	0.00
Scheduled repayment of principal during the financial year.	83.25
Actual repayment of principal during the financial year.	83.25
Drawls during the financial year	35.84
Due for current year	0.00
Due of beginning amount	0.00
Outstanding loan as on 31 March 2007	268.88

3.61 The interest to be allowed on PFC loan is worked out as under:

**Table 52 : PFC interest (Rs. Crore)**

Particular	A	B	C=(A-B)	D	E=(C-D)
<b>Interest as per balance sheet</b>	<b>Due</b>	<b>Interest on Interest.</b>		<b>CWIP</b>	<b>Interest considered</b>
Total Interest	189.49	1.00	188.49	115.67	72.82
Less: To be Claimed Separately	127.73	0.84	126.89	113.06	13.83
<b>Claimed Interest</b>	<b>61.76</b>	<b>0.16</b>	<b>61.60</b>	<b>2.61</b>	<b>58.99</b>
Less: Chattisgarh loan interest	33.80	0.00	33.80	0.00	33.80
<b>Net balance allowed for True up</b>	<b>27.96</b>	<b>0.16</b>	<b>27.80</b>	<b>2.61</b>	<b>25.19</b>

- 3.62 The total interest of Rs. 189.49 Crores shown by the petitioner included the interest due, interest accrued, interest on interest and interest amount in CWIP. Interest on SGTPS extension 500 MW and ATPS extension 210 MW, Madhikheda and Jhinna for which MPPGCL is to be filed separately by the petitioner.
- 3.63 MPPGCL has claimed Rs.61.76 Crores of interest expenses on PFC loan, out of which interest of Rs.33.80 Crores pertains to Chattisgarh unlinked loan allocated to MPPGCL, Since this amount is not recorded in FY2006-07 balance sheet, the Commission has not considered this amount for true up of FY2006-07, Commission has computed the net interest of Rs. 27.96 Crores after deducting the interest of Rs. 33.80 Crores on Chattisgarh loan for true up order of FY 2006-07.
- 3.64 The Commission after deducting the interest on interest and amount transferred to capital work in progress of Rs. 2.77 Crores from net interest due has allowed interest of Rs. 25.19 Crores on PFC loan.

**Table 53 : LIC loan as per balance sheet****(Rs. Crore)**

Particular	LIC	
	2005-06	2006-07
Loan outstanding as at the beginning of the financial year.	488.00	419.14
Overdue at beginning of year	0.00	41.32
Scheduled repayment of principal during the financial year.	68.86	0.00
Actual repayment of principal during the financial year.	27.55	41.32
Due at the year end	41.32	0.00
Drawls during the financial year	0.00	0.00
Outstanding loan as at the end of financial year.	419.14	419.14
Interest overdue at beginning of year	0.00	23.88
Scheduled payment of interest during the financial year.	23.88	35.81
Actual payment of interest during the financial year.	0.00	59.69
Due at the year end	23.88	0.00

- 3.65 In MYT order for FY 2007 to 2009, MPPGCL through its supplementary submission identified LIC loans with SGTPS project. The details in this regard have been provided. The Commission had found that out of Rs. 488 Crores allocated in the Opening Balance Sheet and Rs. 419 Crores filed by the generating company, only Rs. 371.66 Crores was found pertaining to SGTPS.
- 3.66 In the present Petition for true-up of the generation tariff for FY 2006-07, the Petitioner has requested the Commission to allow the interest on the total LIC loan amount of Rs. 488 Crores, out of which Rs. 371.66 Crores of loan is already identified by the Petitioner as project specific loans and the rest is the unlinked loan of Rs.116 Crores..



- 3.67 At the beginning of FY 2005-06 the LIC loan outstanding is of Rs. 488 Crores, which is further divided into linked and unlinked loan. During FY06 MPPGCL has repaid the principal of Rs. 68.86 Crores as shown in balance sheet. This repayment resulted in outstanding LIC loan of Rs. 419 Crores as on 31 March '2006. The repayment is apportioned in the ratio of opening linked and unlinked loan as given in below table.

**Table 54 : LIC loan- FY 2005-06 (Rs Crore)**

Particular	Principal Opening	Repayment	Principal Closing
LIC	488.00	68.68	419.32
Linked	371.00	52.21	318.79
Unlinked	117.00	16.47	100.53

- 3.68 During FY 2006-07 MPPGCL has shown that there is no obligation against principal repayment of LIC loan. The Commission is not convinced that there could be no repayment against a renegotiated loan of LIC. However, looking to the audited accounts of MPGCL, the Commission has considered the LIC loan outstanding as on 31 March 2007 as same as opening balance of Rs. 419 Crores on 1 April 2006. The Commission directs the Petitioner to clarify this issue before the issue of order for true up of generation tariff for FY 2007-08.

**Table 55 : LIC loan-FY2006-07 (Rs Crore)**

Particular	Principal Opening	Repayment	Principal Closing	Principal Average	Interest
LIC	419.32	0.00	419.32	419.32	35.81
Linked	318.79	0.00	318.79	318.79	27.23
Unlinked	100.53	0.00	100.53	100.53	8.59

- 3.69 The total interest of Rs.35.81 Crores is apportioned in the ratio of linked and unlinked loan amount. Interest of Rs 27.23 Crores allowed against linked loan of Rs 318.79 Crores and interest of Rs 8.59 Crores against unlinked loan of Rs 100.53 Crores.
- 3.70 The Commission allows the interest on CSS (Central sponsored scheme) loan claimed by MPPGCL of Rs. 00.28 Crores.
- 3.71 The Commission thus allows the total actual interest expenses of Rs. 115.2 Crores (PFC Rs. 25.19 Crores + LIC Rs. 27.23 Crores + CSS Rs.0.0028 Crores + Rs. 62.78 Crores on unlinked loan liability).

**Table 56 : Interest claimed and allowed (Rs Crore)**

Particular	Closing Balance As On 31/03/2007	Claimed Interest	Allowed Interest	True up amount
<b>Linked</b>				
PFC (Un-Sec)	268.88	61.76	25.19	

LIC	319	27.23	27.23	
CSS	0.04	0.0028	0.0028	
<b>Unlinked Loan</b>	580	62.78	62.78	
<b>Total</b>		<b>151.77</b>	<b>115.2</b>	<b>36.57</b>

### Interest on Working Capital

3.72 The Petitioner is eligible for Interest on Working Capital based on the norms specified by the MPERC. The norms provide working capital covering cost of 45 days coal stock, 60 days stock of secondary oil, 30 days O&M expenditure, 1% of opening Gross Block as maintenance spares and 2 months' receivables. Accordingly, the MPPGCL has indicated in the Petition the normative requirement of working capital of Rs 667.86 Crores as given below:

**Table 57 : Comparison of Working Capital Interest Expenses (Rs lakh)**

Particulars	Working Capital Amount and Interest Requirement					
	Approved in MYT Order		As filed in true up petition		Difference	
	WC Amount	IOWC	WC Amount	IOWC	WC Amount	IOWC
1 ATPS Chachai	5170	592	5612	631	442	39
2 STPS Sarni	34306	3930	40988	4611	6682	681
3 SGTPS Birsinghpur	23041	2640	25930	2917	2889	277
<b>Thermal</b>	<b>62517</b>	<b>7162</b>	<b>72529</b>	<b>8159</b>	<b>10013</b>	<b>997</b>
4 Bansagar	2951	338	3548	399	597	61
5 Pench	332	38	354	40	22	2
6 Birsinghpur	124	14	136	15	12	1
7 Bargi	268	31	439	49	171	18
8 Gandhi Sagar	225	26	265	30	40	4
9 Rajghat	241	28	271	31	30	3
<b>Hydel</b>	<b>4141</b>	<b>475</b>	<b>5013</b>	<b>564</b>	<b>872</b>	<b>89</b>
<b>Total</b>	<b>66658</b>	<b>7637</b>	<b>77542</b>	<b>8723</b>	<b>10885</b>	<b>1086</b>

3.73 The Commission made a thorough scrutiny of the working capital calculations submitted by the Petitioner and the Commission made fresh calculations based on the same norms of 45 days coal stock, 60 days stock of secondary oil, 30 days O&M expenditure, 1% of opening Gross Block as maintenance spares and 2 months' receivables based on the following parameter,

- Allowed Coal Cost in True-up for FY2006-07
- Allowed Secondary Oil Cost in True-up for FY2006-07
- Allowed O&M Cost in True-up for FY2006-07
- Allowed Maintenance Spares for True-up for FY2006-07

## ➤ Allowed Revenue from Sale of Power for True-up for FY 2006-07

- 3.74 Based on the above allowed cost and norms set by the Commission, and the interest rate of 11.25%, the Commission allows the interest on Working Capital as stated below.

**Table 58 : Allowed Interest on Working Capital (Rs. Lakh)**

S. No.	Particulars		Total Thermal	Total Hydel	Total Actual
1	Fuel Cost for Working Capital Requirement	Coal Cost	147219	0	147219
2		45Days Requirement	23751	0	23751
3		Oil Cost	8724	0	8724
4		60 Days Requirement	1434	0	1434
5		Total for Working Capital	25185	0	25185
6	One month O&M Requirement	Repair & Maint. Expenditure			0
7		Employee Expenditure			0
8		A&G Expenditure			0
9		Total	28115	3429	31544
10		Total for Working Capital (One Month)	2343.00	286.00	2629.00
11	Maintenance Spares	Gross Fixed Assets	286588	155131	441719
12		1% of Gross Fixed Assets			0
13		Total for Working Capital	2866	1551	4417
14	Receivables	Annual Revenue from Sale of Power & Other	215050	18317	233367
15		2 Months Receivables	35842	3053	38895
16		Total for Working Capital	35842	3053	38895
17	Total Working Capital		<b>66236</b>	<b>4890</b>	<b>71126</b>
18		Interest Rate Chargeable	<b>11.25%</b>	<b>11.25%</b>	<b>11.25%</b>
<b>19</b>	<b>Total Interest on Working Capital</b>		<b>7452</b>	<b>550</b>	<b>8002</b>

**Non-Tariff Income**

- 3.75 The non-tariff income is the income generated by the MPPGCL from all other sources except sale of power e.g. interest on fixed deposits and investments, trading business like sale of scrap delayed payment surcharge etc.
- 3.76 The Petitioner has submitted the station-wise approved in MYT order actual non tariff income for FY 2006-07 as elaborated in the table below table.

**Table 59 : Approved Vs Actuals Non Tariff Income****(Rs. Lakh)**

	<b>Power Stations</b>	<b>MPERC Approved in MYT</b>	<b>MPPGCL Actual</b>	<b>Difference</b>
1	ATPS Chachai	44	294	250
2	STPS Sarni	244	1089	845
3	SGTPS Birsinghpur	193	661	468
	<b>Total Thermal</b>	<b>481</b>	<b>2044</b>	<b>1563</b>
4	Bansagar	40	375	335
5	Pench	6	92	86
6	Birsinghpur	2	11	9
7	Bargi	19	51	32
8	Gandhi Sagar	7	67	60
9	Rajghat	2	27	25
	<b>Total Hydel</b>	<b>76</b>	<b>624</b>	<b>547</b>
	<b>Total</b>	<b>557</b>	<b>2668</b>	<b>2111</b>

3.77 The Commission while re-estimating the non-tariff income observed and subsequently got confirmed from the Petitioner also that the non-tariff income of MPPGCL is not shared with Rajasthan and Maharashtra for their share of ownership.

**Table 60 : Allowed Non Tariff Income****(Rs. Lakh)**

<b>SR. No</b>	<b>Stations of MPPGCL</b>	<b>Non-tariff Income of individual stations</b>	<b>Non-tariff Income of Head Quarter</b>	<b>Allowed Non-tariff income by the Commission</b>
1	Chachai (PH 1&2)	135.40	158.57	293.97
2	Sarni Total (Share)	463.91	624.72	1088.64
3	Birsinghpur (Total)	201.96	459.31	661.27
	<b>Thermal (Share)</b>	<b>801.31</b>	<b>1242.61</b>	<b>2043.92</b>
4	G. Sagar	4.49	62.88	67.38
5	Pench	4.49	87.49	91.98
6	Birsinghpur Hydro	0.43	10.94	11.37
7	Ban Sagar	153.11	221.46	374.57
8	Bargi	2.18	49.21	51.40
9	Rajghat	2.49	24.61	27.09
10	J.Sagar	0.06		
11	R.P Sagar	0.01		
12	Marhikhera	13.36	12.58	
	<b>Total Hydro</b>	<b>180.62</b>	<b>469.16</b>	<b>623.77</b>
	S&I + HO	280.15		
	Other Than CoGHS	1431.62		
	<b>Total HQ</b>	<b>1711.77</b>		
	<b>Total</b>	<b>2693.70</b>	<b>1711.77</b>	<b>2667.69</b>

- 3.78 The Commission made a thorough scrutiny of the amount claimed vis-à-vis the audited account of for FY2006-07 and has summarised in the table above. The Non-tariff income claimed by Petitioner, matches with the audited account. Hence, the Commission approves the non tariff income of Rs 2667.69 Lakhs (excluding the non-tariff income of Madhikheda, Jawahar Sagar & Rana Pratap Sagar) in this true-up Petition for FY2006-07.

## Other Expenses

### Water Cost

- 3.79 The Petitioner in his original True up Petition for FY 2006-07 claimed water charges of Rs 32.87 Crore as per schedule 10 of the Petition. Commission made a scrutiny of the cost being claimed vis-à-vis the audited figure mentioned in the audited account of MPPGCL. Audited account mentions total water charge of Rs.3089.83 Lakhs for MPPGCL's share ownership. A clarification was sought from the Petitioner in this regard vide letter no. MPERC/ DD(Gen)/2008/2157 dated 4.10.2008. The Petitioner in its reply no. 07-12/CP-MPPGCL/MPERC/499 dated 12.11.2008 submitted that the earlier submission was incorrect on account of inadvertent error. The Petitioner revised the figures for water charges.
- 3.80 The Petitioner in its revised petition submitted the water cost as given in the Table below. The Commission finds the estimation of water charges for 100% capacity base as appropriate, hence allows the entire water charges as claimed.

**Table 61 : Water Cost Claimed in True-up (Rs. Lakh)**

Stations of MPPGCL	Water Charges on share basis	100% Capacity Water Charges for 9 stations operated by MPPGCL
Chachai (PH 1&2)	15.63	15.63
Sarni PH1 (60%)	44.38	76.53
Sarni (PH 2&3)	34.39	34.39
Birsingh pur (PH1&2)	31.87	31.87
Thermal (Share)	126.27	158.41
G. Sagar (50%)	143.38	301.86
Pench (66.67%)	0.00	0.00
Birsingh pur Hydro	8.11	8.11
Ban Sagar	2009.32	2009.32
Bargi	716.41	716.41
Rajghat (50%)	44.41	93.50
J.Sagar (50%)	0.00	
R.P Sagar (50%)	4.00	
Total (Hydro Share)	2925.64	3129.20
<b>Total</b>	<b>3051.91</b>	<b>3287.62</b>

- 3.81 The comparison of water charges allowed in the true-up vis-à-vis Cost of Water allowed in the MYT order for the year FY2006-07 is given in the below table.

**Table 62 : Water charges allowed in MYT vs. True-up****(Rs. Lakh)**

SR. No	Particulars	As Approved in MYT Order	Actual Cost claimed by MPPGCL and allowed by the Commission in True-up	True up Difference
1	ATPS Chachai	-	15.63	15.63
2	STPS Sarni	-	110.92	110.92
3	SGTPS Birsinghpur	-	31.87	31.87
	<b>Thermal</b>		<b>158.42</b>	<b>158.42</b>
4	Bansagar	221.00	2009.32	1788.32
5	Pench	0.00	0.00	0.00
6	Birsinghpur	0.00	8.11	8.11
7	Bargi	102.00	716.41	614.41
8	Gandhi Sagar	466.00	301.86	-164.14
9	Rajghat	122.00	93.50	-28.50
	<b>Hydel</b>	<b>911.00</b>	<b>3129.20</b>	<b>2218.20</b>
	<b>Total</b>	<b>911.00</b>	<b>3287.61</b>	<b>2376.61</b>

- 3.82 The Commission is of the view that, water charges of Thermal generation stations is an integral part of entire O&M expense. Hence, for the purpose of true-up the commission has included the water charges of Thermal generation station i.e.Rs.158.42 Lakh in the O&M Expenses of thermal stations.
- 3.83 The expenditure on account of water charges of Hydel stations paid by the MPPGCL to the Government of M.P. is based on actual. The Commission approves the same as claimed amounting to Rs 3287.61 Lakh.

#### **Cess on Auxiliary Consumption**

- 3.84 The Commission on verification of this expense found that the Cess paid is lower as it had been estimated in the MYT order. The Petitioner clarified during the discussions that the estimation of Auxiliary consumption by the method followed by the Commission nets off the ex-bus sent-out from the Gross generation. However, for the payment of Cess, the consumption consumed through the auxiliary transformer is considered, which has got an energy meter to measure the auxiliary consumption. There is difference in quantum due to procedural differences.
- 3.85 As this expense is always calculated in share basis between the owners of the generating stations, the Commission estimated the Cess for all the 9 subject stations being operated by the Petitioner for 100 % capacity and the station wise expenses are as follows:

**Table 63 : Cess on Auxiliary claimed in True-up Petition****(Rs. Lakh)**

SR. No	Stations of MPPGCL	CESS as mentioned for MPPGCL's Share in the audited account	CESS as computed for 100% Capacity
1	Chachai (PH 1&2)	151.74	151.74
	Sarni PH1 (60%)	106.49	183.60
	Sarni (PH 2&3)	489.19	489.19
2	Sarni Total	595.68	672.79
3	Birsingh pur (PH1&2)	556.81	556.81
	<b>Thermal (Share)</b>	<b>1304.23</b>	<b>1381.34</b>
4	G. Sagar (50%)	0.41	0.86
5	Pench (66.67%)	0.00	0.00
6	Birsingh pur Hydro	0.24	0.24
7	Ban Sagar	4.06	4.06
8	Bargi	0.48	0.48
9	Rajghat (50%)	0.01	0.02
	<b>Total (Hydro Share)</b>	<b>5.20</b>	<b>5.66</b>
	<b>Total (Thermal and Hydrel)</b>	<b>1309.42</b>	<b>1387.00</b>

3.86 The comparison of Cess on auxiliary charge being claimed in the true-up Petition by the Petitioner vis-à-vis Cess allowed in the MYT order for the year FY2006-07 is given in the below table.

**Table 64 : Comparative Cess allowed in MYT vs. True-up****(Rs. Lakh)**

SR. No	Particulars	As Approved in MYT Order	MPPGCL Actual Cess claimed and allowed by the Commission in the True-up	Difference
1	ATPS Chachai	155.00	151.74	-3.26
2	<b>STPS Sarni</b>	686.00	672.79	-13.21
3	SGTPS Birsinghpur	534.00	556.81	22.81
	<b>Thermal</b>	1375.00	1381.34	6.34
4	Bansagar	11.00	4.06	-6.94
5	Pench	3.00	0.00	-3.00
6	Birsinghpur	0.40	0.24	-0.16
7	Bargi	5.00	0.48	-4.52
8	Gandhi Sagar	2.00	0.86	-1.14
9	Rajghat	0.90	0.02	-0.88
		22.30	5.66	-16.64
	<b>Total</b>	<b>1397.30</b>	<b>1387.00</b>	<b>-10.30</b>

**MPERC Fees**

3.87 The Petitioner has claimed the same amount of MPERC Fees expenses as had been allowed in the in the MYT order. The details are as given in table below.

**Table 65 : MPERC Fees Allowed vs. Claimed (Rs Lakh)**

SR. No	Particulars	As Approved in MYT Order	MPPGCL Actual Cost claimed and allowed by the Commission in True-up
1	ATPS Chachai	14.50	14.50
2	STPS Sarni	57.13	57.13
3	SGTPS Birsinghpur	42.00	42.00
	<b>Thermal Total</b>	<b>113.63</b>	<b>113.63</b>
4	Bansagar	4.05	4.05
5	Pench	1.60	1.60
6	Birsinghpur	0.20	0.20
7	Bargi	0.90	0.90
8	Gandhi Sagar	1.15	1.15
9	Rajghat	0.45	0.45
	<b>Hydel Total</b>	<b>8.35</b>	<b>8.35</b>
	<b>Total</b>	<b>121.98</b>	<b>121.98</b>

3.88 The Commission allows MPERC Fees as claimed by the Petitioner.

**Rent & Taxes**

3.89 The Petitioner has claimed the expenses against the Rent and Taxes under other cost. The Comparative analysis of actual Rent and Taxes and allowed in the MYT Order is given in the table below;

**Table 66 : Allowed Rent and Taxes in MYT Order vs. Actual (Rs. Lakh)**

SR. No	Stations of MPPGCL	Rent & Taxes approved in MYT Order	Actual Rent & Taxes as incurred by Petitioner and allowed by the Commission in true up	Difference
1	ATPS Chachai	7.00	0.20	-6.80
2	STPS Sarni	41.00	25.39	-15.61
3	SGTPS Birsinghpur	32.00	8.05	-23.95
	<b>Thermal Total</b>	<b>80.00</b>	<b>33.64</b>	<b>-46.36</b>
4	Bansagar	16.00	0.77	-15.23
5	Pench	2.00	0.02	-1.98
6	Birsinghpur	0.60	0.00	-0.60
7	Bargi	8.00	0.44	-7.56
8	Gandhi Sagar	3.00	1.29	-1.71
9	Rajghat	1.00	0.25	-0.75
	<b>Hydel Total</b>	<b>30.60</b>	<b>2.77</b>	<b>-27.83</b>
	<b>Total (Thermal + Hydel)</b>	<b>110.60</b>	<b>36.41</b>	<b>-74.19</b>



- 3.90 The Commission on scrutiny has observed that MPPGCL has included Rent and taxes in A&G Expenses also. The Commission has not considered the Rent and taxes in A&G expenses. The Commission allows the actual Rent and Taxes claimed by the Petitioner.

### Employee Terminal Benefit

- 3.91 The O&M expenditure mentioned in the Regulation No.38 of Terms and Condition for determination of Generation Tariff, excludes the taxes payable to Government or local authorities, fee payable to MPERC and Pension and Terminal Benefits payable to its employees, which the MPPGCL shall claim separately.
- 3.92 The MYT order of MPERC issued in dated 7<sup>th</sup> March 2006, in Paragraph 4.17 mentions that, *“The provisions envisaged in the transfer scheme for funding unfunded liabilities towards pension and other terminal benefits are yet to be implemented. Presently MPPTCL is paying terminal benefits on behalf of the five companies formed out of reorganisation of MPSEB. The Commission was informed that even after 1 June 2005, the terminal benefits and the pension of the people retired from the services of the company are being paid by MPPTCL. Accordingly, the Commission shall consider the provision for the terminal benefits in the tariff order of MPPTCL. When MPPGCL starts bearing the terminal liability towards its retiring employees, the Commission shall consider the actual expense incurred while trueing up in subsequent orders.”*
- 3.93 The Petitioner in this true-up Petition has claimed the provisional expenses against the Terminal Benefits as mentioned in the table below.

**Table 67 : Provisional Terminal Benefit claimed by Petitioner**

**(Rs. Lakh)**

Sr. No	Stations of MPPGCL	Terminal Benefit allowed in the MYT Order	Provisional True-up claimed by the Petitioner
1	ATPS Chachai	0.00	272.63
2	STPS Sarni	0.00	1072.91
3	SGTPS Birsinghpur	0.00	790.67
	<b>Thermal Total</b>	<b>0.00</b>	<b>2136.21</b>
4	Bansagar	0.00	380.25
5	Pench	0.00	150.02
6	Birsinghpur	0.00	18.75
7	Bargi	0.00	84.39
8	Gandhi Sagar	0.00	109.95
9	Rajghat	0.00	42.19
	<b>Hydel Total</b>	<b>0.00</b>	<b>785.56</b>
	<b>Total (Thermal +</b>	<b>0.00</b>	<b>2921.76</b>

- 3.94 The Commission based on the facts and background, understands that this expense claimed is a provision. MPPGCL till date has not actually paid any terminal benefits to its employee. All the terminal benefits are being paid by the MPPTCL. The Commission has already allowed the terminal benefits in the true up of Transmission for FY 2006-07. Hence, the Commission does not allow this provision for expense in this true-up of ARR for the year FY2006-07.

### Return on Equity

- 3.95 The Commission in its order dated 25th January 2006 had gone into the computation of equity employed in the completed projects and agreed with the contention of the Generating Company that out of total equity of Rs. 1278 Crores only Rs. 929.57 Crores had been employed in the completed project. The return allowed in MYT order for FY 2006-07 was Rs. 129.11 Crores at the rate of 14 % on equity of Rs. 922 Crores. The Petitioner has not shown any addition to the equity. Therefore the Commission has allowed return on equity of Rs 129.11 Crores on equity utilized for completed project of Rs 922 Crores as allowed in MYT order of FY2006-07.

### Summary of Fixed and Variable cost on True up of ARR for FY 2006-07:

- 3.96 The Commission has calculated the allowable fixed charges (for all component of Fixed cost) as mentioned in the table below at normative availability:

**Table 68 : Allowable Fixed Cost at Normative Availability (Rs. Lakh)**

	O&M	Depreciation	Int. on Loan	Int. on WC	RoE	Other Charges (CESS+ Rent & Taxes + MPERC Fees + Water Charges)	Non Tariff. Income	Total Allowable Fixed Cost
ATPS	4,773	141	89	596	421	166	-294	5,892
STPS	15,482	552	505	4,125	1,774	755	1,089	22,104
SGTPS	7,862	6,875	6,899	2,731	6,182	607	-661	30,495
<b>Thermal Total</b>	<b>28,115</b>	<b>7,568</b>	<b>7,494</b>	<b>7,452</b>	<b>8,377</b>	<b>1,529</b>	<b>2,044</b>	<b>58,491</b>
G. Sagar (100%)	468	8	0	20	30	305	-67	764
Pench (100%)	373	114	84	28	256	2	-92	765
Birsingh pur Hy.	75	133	85	15	152	9	-11	458
Ban Sagar	1931	2587	3518	415	3628	2018	-375	13,722
Bargi	365	194	125	42	226	718	-51	1,619
Rajghat (100%)	219	219	215	30	242	94	-27	992
Total Hydel	3,429	3,255	4,027	550	4,534	3,146	-624	18,317
<b>Total</b>	<b>31,544</b>	<b>10,823</b>	<b>11,520</b>	<b>8,002</b>	<b>12,911</b>	<b>4,675</b>	<b>2,668</b>	<b>76,808</b>

- 3.97 The Commission allows the recoverable fixed cost based on the availability factor (refer table 6.0 for thermal and table 11.0 for hydel) of all thermal generation plant and capacity index of hydro generating plants. The fixed cost so arrived is mentioned in the table below.

**Table 69 : Fixed Cost Component after consideration of Availability Factor (Rs. Lakhs)**

Power Stations	O&M	Depreciation	Int. on Loan	Int on WC	RoE	Total Fixed Cost
ATPS	4,662	138	87	582	411	5,879
STPS Sarni (100%)	14,779	527	482	3,938	1,693	21,419
SGTPS Birsinghpur	7,720	6,751	6,774	2,682	6,070	29,997
<b>Thermal</b>	<b>27,161</b>	<b>7,415</b>	<b>7,343</b>	<b>7,202</b>	<b>8,175</b>	<b>57,296</b>
G. Sagar (100%)	468	8	0	20	30	526
Pench (100%)	373	114	84	28	256	855
Birsinghpur Hydel.	75	133	85	15	152	460
Ban Sagar	1931	2587	3518	415	3628	12,079
Bargi	365	194	125	42	226	952
Rajghat (100%)	219	219	215	30	242	925
<b>Total Hydel</b>	<b>3,429</b>	<b>3,255</b>	<b>4,027</b>	<b>550</b>	<b>4,534</b>	<b>15,796</b>
<b>Total</b>	<b>30,589</b>	<b>10,670</b>	<b>11,370</b>	<b>7,752</b>	<b>12,709</b>	<b>73,093</b>

- 3.98 The total fixed cost thus arrived above by applying availability factor is added with the other components of fixed cost on which availability factor is not to be applied. Hence, the allowed recoverable fixed cost in this true up Order is as given below;

**Table 70 : Allowed Total Fixed Cost****(Rs. Lakh)**

Particulars	Fixed cost Component after considering the Availability factor	Other Fixed Cost & Non-tariff income	Allowed Fixed Cost
ATPS	5,879	-128	5,751
STPS Sarni	21,419	-333	21,086
SGTPS Birsinghpur	29,997	-54	29,943
<b>Thermal Total</b>	<b>57,296</b>	<b>-515</b>	<b>56,780</b>
G. Sagar (100%)	526	238	764
Pench (100%)	855	-90	765
Birsinghpur Hy.	460	-3	457
Ban Sagar	12079	1644	13,723
Bargi	952	667	1,619
Rajghat (100%)	925	67	992
<b>Hydel Total</b>	<b>15,796</b>	<b>2,523</b>	<b>18,320</b>
<b>Total</b>	<b>73,093</b>	<b>2,007</b>	<b>75,100</b>

3.99 The variable cost recoverable on actual net generation sent out ex-bus is as mentioned in the table below;

**Table 71 : Allowed Variable cost****(Rs Crore)**

Station	Total Recoverable Variable Cost
ATPS	131.43
STPS	949.31
SGTPS	509.83
<b>Total</b>	<b>1590.57</b>

**True -up Cost allowed in this Order**

3.100 Based on the above analysis of the actual costs as allowed by the Commission in this true up Order , the tariff allowed for FY 2006-07 in MYT order and the revenue collected by the MPPGCL, the Commission has calculated the amount of **Rs 42.95 Crore** to be recovered by MPPGCL as given below;

Table 72 : Station wise true-up recovery

(Rs. Lakh)

Particulars	Fixed cost As per MYT Tariff Order for FY07	Allowed Fixed cost as per true-up	Variable Cost Recovery as per MYT Tariff Order for FY2006-07	Allowed Variable cost as per true-up	Total True-up amount allowed
ATPS Chachai	4,739	5,751	13,450	13,143	705
STPS Sarni	20,154	21,086	95,713	94,931	150
SGTPS Birsinghpur	30,295	29,943	51,806	50,983	-1,175
<b>Thermal Total</b>	<b>55,188</b>	<b>56,780</b>	<b>160,969</b>	<b>159,057</b>	<b>-320</b>
Bansagar	9,369	13,723	-	-	4,354
Pench	1,116	765	-	-	-351
Birsinghpur Hydel	386	457	-	-	71
Bargi	946	1619	-	-	673
Gandhi Sagar	1,037	764	-	-	-273
Rajghat	851	992	-	-	141
<b>Hydel Total</b>	<b>13,705</b>	<b>18,320</b>	<b>-</b>	<b>-</b>	<b>4,615</b>
<b>Total MPPGCL</b>	<b>68,893</b>	<b>75,100</b>	<b>160,969</b>	<b>159,057</b>	<b>4,295</b>

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