

**Before the  
MAHARASHTRA ELECTRICITY REGULATORY COMMISSION  
World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai – 400 005**

**Email: [mercindia@mercindia.org.in](mailto:mercindia@mercindia.org.in)**

**Website: [www.mercindia.org.in](http://www.mercindia.org.in)**

**Case No. 107 of 2009**

**IN THE MATTER OF**

**Petition filed by The Maharashtra State Power Generating Company Limited (MSPGCL) for approval of Truing up for FY 2007-08 and FY 2008-09 for Parli Unit 6 and Truing up of Paras Unit 3, Annual Performance Review for FY 2009-10 and Determination of Tariff for FY 2010-11 for Parli Unit 6 and Paras Unit 3**

**Shri V. P. Raja, Chairman  
Shri Vijay L. Sonavane, Member**

**Date: April 13, 2011**

**ORDER**

In accordance with MERC (Terms and Conditions of Tariff) Regulations, 2005 and upon directions from the Maharashtra Electricity Regulatory Commission (hereinafter referred as MERC or the Commission), Maharashtra State Power Generating Company Limited (MSPGCL), submitted its application on affidavit for approval of truing up of Aggregate Revenue Requirement (ARR) for FY 2007-08 and FY 2008-09 for Parli Unit 6 and truing up of Aggregate Revenue Requirement (ARR) for FY 2008-09 for Paras Unit 3, Annual Performance Review (APR) for FY 2009-10 and tariff for FY 2010-11 for Parli Unit 6 and Paras Unit 3. The Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by MSPGCL, responses of MSPGCL and all other relevant material, and after review of Annual Performance for FY 2009-10, determines the tariff for MSPGCL for FY 2010-11 as under.



### List of Abbreviations

AAD	Advance Against Depreciation
AOH	Annual Overhaul
APR	Annual Performance Review
ATE	Appellate Tribunal for Electricity
ARR	Aggregate Revenue Requirement
APH	Air Pre Heater
BHEL	Bharat Heavy Electrical Ltd.
CA	Chartered Accountant
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CV	Calorific Value
COD	Commercial Operation Date
EA 2003	Electricity Act, 2003
FAC	Fuel Adjustment Cost
FC	Financing Cost
FOCA	Fuel & Other Cost Adjustment
FY	Financial Year
GAAP	Generally Accepted Accounting Principles
GEC	General Establishment Cost
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GOM	Government of Maharashtra
GOMWRD	Government of Maharashtra-Water Resource Department
HP	High Pressure
IDC	Interest During Construction
IWC	Interest on Working Capital
Kcal	kilo calories
kW	kilo Watt
kWh	kilowatt hour
LD	Liquidity Damages
MERC	Maharashtra Electricity Regulatory Commission
MSEB	Maharashtra State Electricity Board
MSPGCL	Maharashtra State Power Generation Company Limited
MU	Million Units
MW	Mega Watt
MYT	Multi Year Tariff
NTI	Non Tariff Income
NTPC	National Thermal Power Corporation
O&M	Operations and Maintenance
PFC	Power Finance Corporation
PLF	Plant Load Factor
PLR	Prime Lending Rate
RoE	Return on Equity
SFOC	Secondary Fuel Oil Consumption



SHR	Station Heat Rate
TVS	Technical Validation Session

## Table of Contents

1.	Background and Brief History .....	6
1.1.	Tariff Regulations.....	6
1.2.	Commission Order on MYT Petition for FY 2007-08 to FY 2009-10.....	6
1.3.	Commission's Orders on MSPGCL Petitions for Parli Unit 6 and Paras Unit 3 for FY 2007-08 to FY 2009-10 .....	6
1.4.	MSPGCL's Appeal before ATE.....	7
1.4.1.	Grounds cited by MSPGCL for Filing of above Appeals .....	7
1.5.	Petition for Annual Performance Review for FY 2009-10 and determination of Tariff for FY 2010-11.....	10
1.6.	Admission of Petition and Public Process.....	11
1.7.	Public Hearing.....	14
1.8.	Organisation of the Order.....	15
2.	Truing Up for FY 2007-08 and FY 2008-09.....	17
2.1.	Fuel Costs.....	17
2.2.	O&M Expenses.....	25
2.3.	Capital Expenditure and Capitalisation .....	27
2.3.1.	Cost of trial run expenses.....	32
2.3.2.	Liquidated Damages.....	33
2.3.3.	Final Capital cost as on COD under both scenarios.....	33
2.3.4.	Additional Capitalization in FY 2007-08.....	37
2.3.5.	Additional Capitalisation in FY 2008-09.....	37
2.3.6.	<i>Debt Equity Ratio for Parli Unit 6 and Paras Unit 3 under Scenario-2</i> .....	40
2.4.	Interest Expenses.....	42
2.4.1.	Interest Cost for FY 2007-08 for Parli Unit 6.....	43
2.4.2.	Interest Cost for Parli Unit 6 for FY 2008-09.....	44



2.4.3. Paras Unit 3: Interest Cost for FY 2008-09 .....	46
2.4.4. Other Finance Charges for Parli Unit 6.....	48
2.5. Depreciation and advance against depreciation (AAD).....	49
2.5.1. Advance Against Depreciation (AAD) .....	50
2.6. Return on equity.....	51
2.7. Income tax .....	54
2.8. Interest on Working Capital .....	54
2.9. Prior Period Items/Migration items of FY 2007-08.....	56
2.10. Revenue side True-up computation.....	56
2.10.1. Revenue Side True-Up Computation for Parli Unit 6 .....	56
2.10.2. Revenue Side True-Up Computation for Paras Unit 3 .....	58
2.11. Reduction in Annual Fixed Charges on account of Reduction in Availability .....	59
2.12. Truing up summary for Parli Unit 6 .....	61
2.12.1. Truing-Up Summary for FY 2007-08 (Nov. 2007- Mar. 2008).....	61
2.12.2. Truing-Up Summary for FY 2008-09.....	61
2.13. Truing up summary for Paras Unit 3.....	65
2.13.1. Truing-Up Summary for FY 2008-09.....	65
3. Performance Parameters .....	68
3.1. Station Wise Performance Parameters and Tariff .....	68
3.1.1. Availability and PLF of Parli Unit 6 and Paras Unit 3.....	68
3.1.2. Auxiliary Consumption .....	70
3.1.3. Heat Rate .....	71
3.1.4. Transit Loss.....	72
3.1.5. Secondary Fuel Oil Consumption (SFOC).....	74
4. Analysis of Energy Availability, Energy Charge and Annual Fixed Charges for FY 2009-10 and FY 2010-11.....	76
4.1. Availability and PLF.....	77
4.2. Auxiliary Consumption .....	78



4.3.	Gross and Net Generation .....	78
4.4.	Variable Cost for Parli Unit 6 and Paras Unit 3 .....	79
4.4.1.	Fuel Cost for FY 2009-10 .....	79
4.4.2.	Fuel Price and Fuel Calorific Value for FY 2010-11 .....	79
4.4.3.	Other Variable Charges.....	81
4.4.4.	Rate of Energy Charge.....	81
4.5.	Annual Fixed Charges.....	82
4.5.1.	O&M Expenses .....	82
4.5.2.	Capital Expenditure & Capitalisation.....	83
4.5.3.	Depreciation.....	84
4.5.4.	Advance against Depreciation (AAD) .....	85
4.5.5.	Debt Equity Ratio for Parli Unit 6 and Paras Unit 3 under Scenario-2 .....	86
4.5.6.	Return on Equity (RoE) .....	88
4.5.7.	Interest on Long Term Loans and Finance Charges .....	91
4.5.8.	Interest on working capital.....	95
4.5.9.	Income Tax.....	95
4.5.10.	Non-tariff Income.....	95
4.6.	Summary of Provisional Truing up for FY 2009-10 .....	96
4.7.	Fixed Cost of Generation for FY 2010-11 .....	97
5.	Tariff Of Parli Unit 6 and Paras Unit 3.....	98
5.1.	Tariff For Thermal Power Generating Stations.....	98
5.1.1.	Approved Annual Fixed Charges.....	99
5.1.2.	Approved Energy Charge.....	99



## **1. BACKGROUND AND BRIEF HISTORY**

This Order relates to the Petition filed by the Maharashtra State Power Generation Company Limited (MSPGCL) for approval of Annual Performance Review for FY 2009-10 and tariff determination for FY 2010-11 for its two new Generating Units, namely Parli Unit 6 and Paras Unit 3.

### **1.1. TARIFF REGULATIONS**

The Commission, in exercise of the powers conferred by the EA 2003, notified the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, (hereinafter referred as the MERC Tariff Regulations) on August 26, 2005. These Regulations superseded the MERC (Terms and Conditions of Tariff) Regulations, 2004.

### **1.2. COMMISSION ORDER ON MYT PETITION FOR FY 2007-08 TO FY 2009-10**

The installed capacity of Parli Unit 6 and Paras Unit 3 is 250 MW each. The Parli Unit 6 and Paras Unit 3 were commissioned on November 1, 2007 and March 31, 2008, respectively. MSPGCL filed a Petition for its Parli Unit 6 and Paras Unit 3 before the Maharashtra Electricity Regulatory Commission (Commission) for approval of Capital Cost and determination of Tariff for the first Control Period on May 23, 2008, and October 27, 2008, respectively.

The Petition for Parli Unit 6 was filed for tariff determination for remaining part of FY 2007-08 (November 2007 to March 2008), FY 2008-09 and FY 2009-10. Similarly, the Petition for Paras Unit 3 was filed for determination of tariff for the first Control Period under the Multi Year Tariff (MYT) framework for FY 2008-09 and FY 2009-10.

### **1.3. COMMISSION'S ORDERS ON MSPGCL PETITIONS FOR PARLI UNIT 6 AND PARAS UNIT 3 FOR FY 2007-08 TO FY 2009-10**

The Commission issued the MYT Order (Case No. 26 of 2008) for Parli Unit 6 (250 MW) on October 21, 2009. In the Order, the Commission determined the generation tariff for Parli Unit 6 for the remaining part of FY 2007-08 (November 2007 to March 2008), FY 2008-09 and FY 2009-10.



The Commission issued the MYT Order (Case No. 95 of 2008) for Paras Unit 3 (250 MW) on December 15, 2009. In the Order, the Commission determined the generation tariff for Paras Unit 3 for FY 2008-09 and FY 2009-10.

#### 1.4. MSPGCL'S APPEAL BEFORE ATE

MSPGCL filed Appeal No. 99 of 2010 (for Paras Unit 3) and Appeal No. 72 of 2010 (for Parli Unit 6) before the Hon'ble Appellate Tribunal for Electricity (ATE) to seek relief on various issues. MSPGCL was aggrieved by the manner in which the Commission had approved the Capital Cost of the Projects and the associated tariff components. The matter is subjudice before the ATE.

##### 1.4.1. Grounds cited by MSPGCL for Filing of above Appeals

##### Reduction of actual capital cost incurred by the Petitioner

##### Parli Unit 6

The Commission approved capital cost excluding IDC and financing cost as Rs 1,100.67 Crore, as compared to the actual capital cost of Rs 1,249.92 Crore as submitted by the Petitioner. The head-wise comparison of cost approved in the MYT Order vis-à-vis the actual cost submitted by MSPGCL is provided in the Table below:

*Table: Comparison of approved cost vis-à-vis the actual cost for Parli Unit 6 as submitted by MSPGCL*

Sl. No.	Description	Cost as on COD (Rs Crore)			Difference (Rs. Crore)
		Actual	Revised as submitted by MSPGCL	Approved by the Commission	
			1	2	3=2-1
1	Land & Land development	1.98	1.98	1.98	Nil
2	Work Cost (Including Taxes & Duties)	1115.93	1095.37	1011.67	83.70 (on account of not considering the variation of Rs. 66.05 Crore due to variation in fuel cost for infirm power, and disallowance of Rs. 17.65 crore against cost of spares)
3	Overheads	132.01	154.55	89.00	65.55 (on account of restricting overheads)



<b>Project Cost (Excluding IDC &amp; FC)</b>	<b>1249.92</b>	<b>1251.90</b>	<b>1102.65</b>	<b>149.25</b>
------------------------------------------------------	----------------	----------------	----------------	---------------

MSPGCL submitted that the Commission has not approved the actual expenditure incurred by MSPGCL in the project implementation to the tune of Rs 83.70 Crore in the hard cost of the project.

### Paras Unit 3

MSPGCL submitted that the capital cost excluding IDC and financing cost approved by the Commission was Rs 1,122.62 Crore as compared to the actual capital cost of Rs 1,327.21 Crore submitted by the Petitioner. The head-wise comparison of approved cost vis-à-vis the actual cost submitted by MSPGCL is provided in the Table below:

*Table: Comparison of approved cost vis-à-vis the actual cost for Paras Unit 3 as submitted by MSPGCL*

Sl. No.	Description	Cost as on CoD (Rs Crore)			Difference (Rs. Crore)
		Actual	Revised as submitted by MSPGCL	As approved by the Commission	
			1	2	3=2-1
1	Work Cost (Including Taxes & Duties)	1187.93	1187.93	1118.69	69.24 (on account of not considering the variation of Rs. 47.40 Crore due to variation in fuel cost for infirm power, and disallowance of Rs. 21.84 crore against cost of spares)
2	Overheads	139.28	139.28	82.33	57.05 (on account of restricting overheads)
3	Less : Cost of Common facilities		78.30	78.30	Nil
	<b>Project Cost (Excluding IDC &amp; FC)</b>	<b>1327.21</b>	<b>1248.91</b>	<b>1122.62</b>	<b>126.29</b>



MSPGCL submitted that the Commission had not allowed actual expenditure incurred by the Petitioner in implementation of the project to the tune of Rs 69.24 Crore in the hard cost of the project.

### **Reduction in the Interest during Construction period and Financing Charges**

MSPGCL submitted that the Commission, while disallowing IDC, has reasoned that there was a purported cascading effect on tariff due to higher IDC and return on equity as the project was initially funded by debt and thereafter, funded with equity. Even though the funding pattern to be adopted by a Utility has not been specified in the Regulations, the Commission has preferred to re-compute the IDC considering schedule and phasing of expenditure in the following manner:

- Certain proportion of upfront equity (30% or 50%)
- Similar portion of upfront debt
- Debt and Equity in proportion to Debt: Equity ratio

### **Reduction in the interest on loan due to pro-rata reduction in the debt component as per the approved Debt: Equity ratio**

MSPGCL submitted that the Commission had considered the Debt : Equity ratio of 72.75: 27.25 for Parli Unit 6, and 75.80: 24.20 for Paras Unit 3, as submitted by MSPGCL. However, as the project cost approved by the Commission is lower than the actual project cost, the Commission had considered such reduction in the capital cost from the loan and internal accruals in the ratio of debt: equity as submitted by MSPGCL.

This has resulted in reduction in the approved loan amounts for tariff purposes even though the actual loan balance was higher in line with the actual capital cost as submitted by MSPGCL.

***Table: Approved Project funding vis-à-vis the actual Funding submitted by MSPGCL  
(Rs. Crore)***

<b>Project Funding</b>	<b>Parli Unit 6</b>		<b>Paras Unit 3</b>	
	<b>MSPGCL (As per Books)</b>	<b>Approved in MYT Order</b>	<b>MSPGCL (As per Books)</b>	<b>Approved in MYT Order</b>
Debt	1063.87	840.52	1091.03	915.14



Equity	398.46	314.83	348.29	292.15
<b>Total</b>	<b>1462.33</b>	<b>1155.35</b>	<b>1439.32</b>	<b>1207.29</b>

MSPGCL submitted that on account of such disallowance of actual loan portfolio, MSPGCL will have to manage loan repayments of Rs 223.35 Crore and Rs 175.89 Crore (as per books of accounts) for Parli Unit 6 and Paras Unit 3, respectively, from its internal resources. Further, the interest on account of such disallowed loan would also have to be managed from its internal resources.

**Reduction in Return on Equity due to pro-rata reduction in the equity component as per the approved Debt: Equity ratio**

MSPGCL submitted that due to the reasons in aforementioned paragraph, the Commission had considered normative equity based on the approved capital cost rather than the actual equity based on actual capital cost. This has resulted in disallowance of return on equity to MSPGCL.

**Disallowance of Advance Against Depreciation (AAD)**

MSPGCL submitted that the Commission has considered the loan repayment schedule for MSPGCL as a whole and hence, considered AAD for MSPGCL as a whole and had not allowed AAD for individual plants. AAD had been disallowed by the Commission even though MSPGCL had provided a clearly identified loan portfolio used for funding the Parli Unit 6 and Paras Unit 3. MSPGCL submitted that MSPGCL (similar to NTPC) filed station-wise ARR Petitions before the Commission, though in a single Tariff Petition. Therefore, in a clear case like for Parli Unit 6 and Paras Unit 3, for which, a separate Tariff Order has been issued, AAD should have been allowed for the two Units.

**1.5. PETITION FOR ANNUAL PERFORMANCE REVIEW FOR FY 2009-10 AND DETERMINATION OF TARIFF FOR FY 2010-11**

In accordance with Regulation 9.1 of the MERC Tariff Regulations, the application for the determination of tariff has to be made to the Commission not less than 120 days before the date from which the tariff is intended to be made effective. Further, the first proviso to Regulation 9.1 states that the

***“date of receipt of application for the purpose of this Regulation shall be the date of intimation about the receipt of a complete application in accordance with Regulation 8.4 above:”***



MSPGCL, in its Petition filed on December 31, 2009, for existing stations submitted that MSPGCL shall file separate Petition for Parli Unit 6 and Paras Unit 3.

On February 5, 2010, the Petitioner filed the Original Petition for the Parli Unit 6 and Paras Unit 3 considering the actual capital cost/audited accounts and based on the contentions raised by it in the Appeals. In the said Petition, the Petitioner prayed

- For undertaking provisional true-up of cost for FY 2007-08 and FY 2008-09 for Parli Unit 6;
- For undertaking provisional true-up of cost for FY 2008-09 for Paras Unit 3;
- Annual Performance Review for FY 2009-10 for both the Units; and
- Approval of ARR for FY 2010-11 for both the Units.

MSPGCL on March 19, 2010 requested Commission to allow submission of separate Petition for determination of tariff of Parli Unit 6 and Paras Unit 3. The Commission granted permission to MSPGCL to file separate Petition for Parli Unit 6 and Paras Unit 3. In this regard the Commission issued notice intimating the date of Technical Validation Session as August 24, 2010.

The Commission held a Technical Validation Session (TVS) on MSPGCL's Petition for approval of APR for FY 2009-10 and Tariff for FY 2010-11 for the Parli Unit 6 and Paras Unit 3, on August 24, 2010 in the presence of Consumer Representatives authorised under Section 94(3) of the EA 2003 to represent the interest of consumers in the proceedings before the Commission. During the TVS, the Commission directed MSPGCL to:

- a) Reply to data gaps identified by the Commission in the said Petition and
- b) Present an alternative scenario of the True-up and ARR considering the philosophy, guidelines and capital cost approved by the Commission in its Order dated October 21, 2009 for Parli Unit 6 in Case No. 26 of 2008, and December 15, 2009 for Paras Unit 3 in Case No. 95 of 2008.

The list of people who participated in TVS is attached as Appendix 1.

## **1.6. ADMISSION OF PETITION AND PUBLIC PROCESS**

Based on the Commission's directive, MSPGCL, in its Revised Petition dated October 22, 2010 submitted two scenarios as under:

**Scenario-1: Submissions as per MSPGCL (considering capital cost as per CA certification)**



**Scenario-2: Capital cost as per principles adopted by the Commission in MYT Orders dated October 21, 2009 and December 15, 2009**

The principal difference in the two scenarios as submitted by MSPGCL is depicted in the table below:

*Table: Principal differences between the two approaches*

Item	Head	Parli Unit 6		Paras Unit 3	
		Scenario-1 (As per MSPGCL)	Scenario-2 (As per MERC)	Scenario-1 (As per MSPGCL)	Scenario-2 (As per MERC)
Capital Cost as on COD	Equipment cost	As per books of accounts	As per books of accounts	As per books of accounts	As per books of accounts
	Add: Cost of spares	3% of capital cost	2.5% of capital cost	As per actual	2.5% of capital cost
	Add: HOS and GEC	As per actual	Restricted to 8.09% of capital cost excluding IDC and FC	As per actual	Restricted to 6.85% of capital cost excluding IDC and FC
	Add: IDC and FC	As per actual	Approved IDC (which was computed in MYT Order considering original schedule and original phasing of expenditure) pro-rated to revised project cost excl IDC & FC	As per actual	Approved IDC (which was computed in MYT Order considering original schedule and original phasing of expenditure) pro-rated to revised project cost excluding IDC & FC
	Less: Cost of common facilities	Nil	As per the principles adopted in MYT Order and considering the restated package-wise capital cost.	Nil	As per the principles adopted in MYT Order and considering the restated package-wise capital cost.
	Less: Net Cost of generation of infirm power	As per books of accounts	As per books of accounts	As per books of accounts	As per books of accounts



Item	Head	Parli Unit 6		Paras Unit 3	
		Scenario-1 (As per MSPGCL)	Scenario-2 (As per MERC)	Scenario-1 (As per MSPGCL)	Scenario-2 (As per MERC)
Components of ARR	AAD	AAD considered as per Tariff Regulations	Not considered	AAD considered as per Tariff Regulations	Not considered
	Opening Loans	As per actual	Revised opening loans considered normatively based on same debt equity ratio (72.75:27.25) considered in MYT Order	As per actual	Revised opening loans considered normatively based on same debt equity ratio (75.8:24.2) considered in MYT Order; interest subsidy under AG&SP also reduced.
	Equity Base	As per actual	Revised equity base considered normatively based on same debt equity ratio (72.75:27.25) considered in MYT Order	As per actual	Revised equity base considered normatively based on same debt equity ratio (75.8:24.2) considered in MYT Order.

In accordance with Section 64 of the EA 2003, the Commission directed MSPGCL to publish its Petition in the prescribed abridged form and manner, to ensure adequate public participation. The Commission also directed MSPGCL to reply expeditiously to all the suggestions and comments received from stakeholders on its Petition. MSPGCL published the Public Notice in The Indian Express on November 17, 2010 and in Times of India, The Maharashtra Times and Loksatta on November 18, 2010 inviting suggestions and objections from stakeholders on its APR Petition. The copies of MSPGCL's Petition and its Executive Summary were made available for inspection/purchase to members of the public at MSPGCL's offices and on MSPGCL's website (<http://www.mahagenco.in>). The copy of the Public Notice and the Executive Summary of the Petition were also uploaded on the website of the Commission (<http://www.mercindia.org.in>) in downloadable format. The Public Notice specified that the suggestions and objections, either in English or Marathi, may be filed in the form of affidavit along with proof of service on MSPGCL.



The Commission however didn't receive any suggestion and objection. The Public Hearings were held at the Commission's office on December 16, 2010.

The list of participants, who participated in the Public Hearing, is provided in **Appendix-2**. The Commission has ensured that the due process, contemplated under law to ensure transparency and public participation, has been followed at every stage meticulously and adequate opportunity was given to all the persons concerned to file their say in the matter. This Order deals with the truing up of FY 2007-08 and FY 2008-09 for Parli Unit 6 and truing up of FY 2008-09 for Paras Unit 3, APR of FY 2009-10 and determination of tariff for FY 2010-11 for both the Units.

### **1.7. PUBLIC HEARING**

The Public Hearing in the matter was held on December 16, 2010 at 11:00 hours in the Commission's Office at 13<sup>th</sup> Floor, Centre No. 1, World Trade Centre, Cuffe Parade, Mumbai – 400 005. No consumer representative or any objector participated in the hearing. MSPGCL made a presentation during the hearing.

MSPGCL submitted two different scenarios for truing up of expenses and revenue for FY 2007-08 and FY 2008-09 and estimated the ARR for FY 2009-10 and FY 2010-11 as per the directions of the Commission in the Technical Validation Session held on August 24, 2010. Under Scenario 1, MSPGCL made the submissions as per the actual Capital Cost claimed by them and under Scenario 2, MSPGCL considered the Capital Cost as per the principles adopted by the Commission in MYT Orders for Parli Unit 6 and Paras Unit 3.

The Commission asked MSPGCL to explain the sequence of events associated with both the projects and the reasons behind the delay. Further, the Commission also asked justification for higher expenses incurred after commissioning of Parli Unit 6 and Paras Unit 3.

During the Public hearing, MSPGCL submitted that the factors responsible for the delay related to the commissioning of Parli Unit 6 and Paras Unit 3 were uncontrollable and therefore, beyond the control of MSPGCL. MSPGCL submitted that one of the main reason on account of which, Parli Unit 6 and Paras Unit 3 could not be commissioned on time, was due to delay in supply of the required equipment and further delay in sequential order, attributable to M/s BHEL.

MSPGCL further submitted that due to frequent failure of various equipment after commissioning, the Units could not be operated continuously leading to lower efficiency and below par performance, which led to increase in operating expenses.



The Commission during the hearing observed that one of the important reasons for time overrun was MSPGCL's inability to get things executed on time as the project implementation was not up to the mark. The Commission further observed that due to the time overrun the Interest During Construction increased considerably.

The Commission is of the view that MSPGCL could have avoided frequent failure of equipment if there were joint checks carried for assuring quality of work. Therefore, it seems from the frequent failure of equipment that such checks were not diligently carried resulting into forced outages and frequent tripping. This has resulted into lower plant availability and higher cost as evident from the filings of MSPGCL.

MSPGCL, in this regard, submitted that they have proper quality assurance and quality checks in place but the problems were beyond the control of MSPGCL and hence, unavoidable.

MSPGCL also expressed its concerns over the quality of coal it has been receiving and expressed its willingness to completely switch over to washed coal as the quality of domestic coal received is muddy and there is also lot of pilferage. MSPGCL further submitted that at the time of Performance Guarantee Test, coal used was washed and was of better quality as compared to the raw coal MSPGCL has been receiving. MSPGCL has been receiving much inferior coal, which adversely affects the performance parameters.

MSPGCL further requested the Commission to take a considerate view and allow deviations in technical performance of stations due to uncontrollable factors while approving the cost of generation which is much lower than that allowed to be purchased by Distributing Companies.

## **1.8. ORGANISATION OF THE ORDER**

This Order is organised in the following five Sections:

**Section 1** of the Order provides a brief history of the quasi-judicial regulatory process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms has been included.

**Section 2** of the Order details the Commission's analysis and ruling on MSPGCL's proposal for Parli Unit 6 and Paras Unit 3 for final truing up of expenses and revenue for FY 2007-08 and FY 2008-09.

**Section 3** of the Order details the performance parameters as approved by the Commission in MYT Order for first Control Period, MSPGCL's proposal for performance parameters



of Parli Unit 6 and Paras Unit 3 during FY 2009-10 and FY 2010-11 and the performance parameters approved by the Commission for FY 2009-10 and FY 2010-11.

**Section 4** of the Order comprises the review of performance for FY 2009-10 (including provisional truing up) and the Commission's analysis of various components of Energy Charges and Annual Fixed Charges of MSPGCL's Parli Unit 6 and Paras Unit 3 for FY 2010-11.

**Section 5** of the Order details the tariff design for MSPGCL's Parli Unit 6 and Paras Unit 3 and the approved Annual Fixed Charges and Energy Charges for FY 2010-11.



## **2. TRUING UP FOR FY 2007-08 AND FY 2008-09**

MSPGCL, in its Petition for Annual Performance Review for FY 2009-10 and determination of tariff for FY 2010-11 for Parli Unit 6 and Paras Unit 3, has included a Section on truing up. MSPGCL has asked for truing up of expenditure and revenue for FY 2007-08 and FY 2008-09 for Parli Unit 6 and truing up of expenditure and revenue for FY 2008-09 for Paras Unit 3 as per audited accounts.

The Commission, in its MYT Order for Parli Unit 6 and Paras Unit 3 in Case No. 26 of 2008 dated October 21, 2009 and Case No. 95 of 2008 dated December 15, 2009 respectively, stipulated that the gains and losses on account of controllable and uncontrollable factors will be shared between the Generating Company and the Licensee at the time of truing up of Aggregate Revenue Requirement (ARR) based on actual performance, expenses and revenue, in accordance with Regulation 19 of the MERC Tariff Regulations, 2005.

### **2.1. FUEL COSTS**

#### **Parli Unit 6**

MSPGCL, in its Petition for Parli Unit 6, submitted that the actual fuel cost for FY 2007-08 (Nov-07 to Mar-08) as per Audited Accounts was Rs. 110.30 Crore (including other fuel related costs of Rs. 3.89 Crore) as against the approved amount of Rs. 89.41 Crore (including other fuel related costs, not approved separately by the Commission) and the actual fuel cost for FY 2008-09 as per Audited Accounts was Rs. 194.09 Crore (including other fuel related costs of Rs. 10.55 Crore) as against the approved amount of Rs. 267.13 Crore (including other fuel related costs, not approved separately by the Commission).

#### **Paras Unit 3**

MSPGCL, in its Petition for Paras Unit 3, submitted that the total actual fuel cost for FY 2008-09 as per Audited Accounts was Rs 200.62 Crore (including other fuel related costs of Rs 5.81 Crore) as against the approved amount of Rs 122.14 Crore (including other fuel related costs, not approved separately by the Commission).

MSPGCL further submitted that the key reasons for the deviation in fuel costs are as follows:

- Expenditure on other variable charges (including water, chemicals, lubricants etc.), and



- Fuel Expenses on account of variation in performance parameters.

In this regard, MSPGCL, submitted as follows:

- a) **Expenditure on other variable charges (including water, chemicals, lubricants etc.)**

### **Parli Unit 6**

MSPGCL submitted that the Commission, in its Order dated October 21, 2009 in Case No. 26 of 2008 had approved other fuel related costs like cost of lubricants, other consumables and water charges, etc., for FY 2009-10. However, it had not approved such costs for FY 2007-08 and FY 2008-09, separately. The actual amounts of such other variable charges for FY 2007-08 and FY 2008-09 are Rs 3.89 Crore and Rs 10.55 Crore, respectively, as per audited accounts.

### **Paras Unit 3**

MSPGCL submitted that the Commission, in its Order dated December 15, 2009 in Case No. 95 of 2008 had approved other fuel related costs like cost of lubricants, other consumables and water charges, etc., for FY 2009-10. However, it had not approved such costs for FY 2008-09, separately. The actual amounts of such other variable charges for FY 2008-09 are Rs 5.81 Crore as per audited accounts.

MSPGCL further submitted the overall details of such expenses as provided in the table below:

***Table: Breakup of other variable charges for Parli Unit 6 and Paras Unit 3 as per Audited Accounts for FY 2007-08 and FY 2008-09 (Rs Crore)***

S.No.	Particulars	Accounting Code	Parli Unit 6		Paras Unit 3
			Actuals FY 2007-08	Actuals FY 2008-09	Actuals FY 2008-09
1	Other Fuel Related Costs	71.20	1.16	2.73	3.56
2	Verification of Coal Stock	71.41	0.00	0.00	0.98
3	Stock Shortages on Physical Verification of Oil Stock	71.42	0.00	0.00	0.00
4	Cost of Water	71.50	2.17	7.07	0.60
5	Lubricants and	71.60	0.56	0.75	0.67



S.No.	Particulars	Accounting Code	Parli Unit 6		Paras Unit 3
			Actuals FY 2007-08	Actuals FY 2008-09	Actuals FY 2008-09
	Consumable Stores				
6	Station Supplies	71.70	0.00	0.00	0.00
	<b>Total</b>		<b>3.89</b>	<b>10.55</b>	<b>5.81</b>

MSPGCL further submitted that the other fuel related costs included the charges for coal handling contract charges, demurrage on coal wagons, siding charges, commission to agents, payments to railway staff posted at power stations, coal stock maintenance cost, other coal related cost, oil handling contract charges and demurrage on oil tankers, cost of lubricants, water charges, chemicals, etc.

MSPGCL submitted that in the previous years, the Commission has been allowing the true-up of other variable charges for existing power stations of MSPGCL. MSPGCL submitted that these are legitimate expenses for ensuring availability of fuel supply to the stations and requested the Commission to true up the aggregate variation of Rs 3.89 Crore and Rs 10.55 Crore of other fuel related expenses for Parli Unit. 6 based on audited accounts for the years FY 2007-08 and FY 2008-09, and Rs 5.81 Crore of other fuel related expenses for Paras Unit. No. 3 based on audited accounts for FY 2008-09.

The Commission, in the data gaps, asked MSPGCL to submit the details of other fuel related costs as per audited accounts and segregation under various sub items for both the Units. MSPGCL in its reply submitted the details as shown in the table below.

**Table: Breakup of other fuel related cost for Parli Unit 6 and Paras Unit 3 (Rs Crore)**

Other Fuel Related Cost	Accounting Code	Parli Unit 6		Paras Unit 3
		FY 2007-08 (Nov-Mar)	FY 2008-09	FY 2008-09
Coal Handling Contract Charges	71.211	0.38	0.55	0.21
Demurrage on Coal Wagons	71.212	0.21	1.06	0.89
Siding Charges	71.213	0.00	0.01	0.00
Penalties for Overloading	71.214	0.00	0.00	0.00
Commission to agents	71.215	0.35	0.59	2.14
Payments to Rly Staff Posted at TPS	71.216	0.00	0.00	0.00



Other Fuel Related Cost	Accounting Code	Parli Unit 6		Paras Unit 3
		FY 2007-08 (Nov-Mar)	FY 2008-09	FY 2008-09
Coal Stock Maintenance Cost	71.217	0.00	0.00	0.00
Other Coal Related Cost	71.219	0.22	0.52	0.32
Oil Handling Contract Charges	71.221	0.00	0.00	0.00
Demurrage on Oil Tankers	71.222	0.00	0.00	0.00
Stock shortages on Physical Verification of Coal Stock	71.41	0.00	0.00	0.98
Stock shortages on Physical Verification of Oil Stock	71.42	0.00	0.00	0.00
<b>Total Other Fuel Related Cost</b>		<b>1.16</b>	<b>2.73</b>	<b>4.54</b>
<b>OPERATING EXPENSES</b>				
Cost of Water	71.5	2.17	7.07	0.60
Lubricants & Consumable Stores	71.6	0.56	0.75	0.67
Stations supplies	71.7	0.00	0.00	0.00
<b>Total Other Variable Charges</b>		<b>3.89</b>	<b>10.55</b>	<b>5.81</b>

The Commission approves other variable charges as claimed by MSPGCL for both the Units as per the details provided by MSPGCL based on audited accounts for FY 2007-08 and FY 2008-09.

**b) Deviation in Fuel Expenses**

**Parli Unit 6**

MSPGCL submitted that in the Order dated October 21, 2009, the Commission had approved fuel cost of Rs 89.41 Crore and Rs 267.13 Crore for FY 2007-08 and FY 2008-09, respectively. In comparison, the actual fuel cost excluding other variable charges as per the audited accounts is Rs 106.41 Crore for FY 2007-08 and Rs 183.54 Crore for 2008-09.

**Paras Unit 3**

MSPGCL submitted that in the Order dated December 15, 2009, the Commission had approved fuel cost of Rs 122.14 Crore for FY 2008-09. In comparison, the actual fuel cost



excluding other variable charges as per the audited accounts is Rs 194.81 Crore for FY 2008-09.

MSPGCL submitted the comparison of actual fuel cost vis-à-vis the approved fuel cost as follows;

**Table: Comparison of Actual Fuel Cost Vs Approved Fuel Cost for FY 2007-08 and FY 2008-09 (Rs Crore)**

Particulars	Parli Unit 6				Paras Unit 3	
	FY 2007-08		FY 2008-09		FY 2008-09	
	Approved	Actuals	Approved	Actuals	Approved	Actuals
Fuel Costs	89.41	106.41	267.13	183.54	122.14	194.81

In this regard, MSPGCL submitted that the observed deviation between actual fuel cost and approved fuel cost is primarily on account of non-stabilization of the Unit.

MSPGCL further submitted that it has commissioned Parli Unit 6 and Paras Unit 3 on November 1, 2007, and March 31, 2008, respectively. As per the MERC Tariff Regulations, 2005, the Units are given a relaxation of 180 days post CoD for stabilization of the Units. During such period, relaxed norms, viz., Station Heat Rate of 2600 kcal/kWh and Secondary Fuel Oil Consumption of 4.5 ml/kWh are permissible.

MSPGCL further submitted that in its MYT Petitions and in subsequent responses to the queries raised by the Commission while processing the MYT Petitions, MSPGCL had requested that the said stabilization period be increased from the normative level of 180 days. MSPGCL further submitted that the technical justification of such increase in stabilization period was also submitted to the Commission.

MSPGCL submitted that it is concerned about the cost of generation from the new Units, which have been largely due to the technical/quality related issues, and appropriate efforts were being made to restore the normative performance of the Units by escalating the same at various levels (M/s BHEL, project personnel, etc.); however, the overall rectification process has taken more time than allowable under the Regulations.

MSPGCL submitted that based on the submissions and without prejudice to the Appeals filed before the ATE, the Commission is requested to kindly take a considerate view while approving the fuel cost of the Units.

The Commission, in its MYT Order, noted that MSPGCL requested to consider stabilization period of 427 days and 275 days for Parli Unit 6 and Paras Unit 3, respectively. The Commission went through the reasons as mentioned by MSPGCL for



increasing the stabilization period from the norm of 180 days. The Commission, in its Order in Case No. 26 of 2008 for Parli Unit 6 stipulated as follows:

*“The Commission has observed that the reasons provided by MSPGCL such as “frequent tripping during the initial period due to mal-operation of flame failure detection system”, “faulty performance of the coal mills”, “inexperience of the operating staff”, etc., are not tenable as it is an acknowledged fact that machine size of 250 MW and all the accessories and auxiliaries are a proven technology and it is expected that it would be of good quality, proven performance and well matched with the requirements. The Commission is of the opinion that it is the duty of the owner of the plant to ensure thorough inspection and testing that the equipment being procured are of good quality, these are stored at site as required and imparting training to its operating personnel well in advance, and any losses incurred through not performing these elementary duties properly cannot be passed on to the consumers.”*

Similarly, the Commission in its Order in Case No. 95 of 2008 for Paras Unit 3, stipulated as follows:

*“The Commission has observed that the reasons provided by MSPGCL such as collapse of ESP, hoppers and RHS of flue gas duct from boiler outlet to ESP inlet, commissioning of various equipments like C&I auto loops, smart soot blowing system, ESP washing arrangement, etc., are not tenable. Considering the experience of MSPGCL in operating power plants, and the experience of BHEL in erecting standard sized 250 MW power plants, such failures and collapse of various equipments should have not taken place. Moreover, it is an acknowledged fact that machine size of 250 MW and all the accessories and auxiliaries are a proven technology and it is expected that it would be of good quality, proven performance and their construction features, supporting infrastructures etc. would be well matched with the requirements. The Commission is of the opinion that it is the duty of the owner of the plant to ensure full compliance with all norms of Quality Assurance and Quality Control (QA & QC) thorough regular inspection and stage wise testing of the equipment, to ensure that the equipment being procured are of good quality, these are stored and erected at site as required, and training is imparted to its operating personnel well in advance, and any losses incurred through non performance of these elementary duties effectively cannot be passed on to the consumers.”*



Therefore, in continuation with the approach followed by it in the MYT Orders and considering the fact that the matter is sub-judice with Appellate Tribunal for Electricity, the Commission is not approving the extended stabilisation period and relaxed performance parameters on account of delay in stabilization of Units.

The Commission approves a stabilisation period of 180 days and performance parameters during stabilisation and post stabilisation as per the provisions of MERC Tariff Regulations. The performance parameters as submitted by MSPGCL and that approved by the Commission for both the Units for FY 2007-08 and FY 2008-09 is as shown in the table below.



**Table: Performance Parameter allowed for Parli Unit 6 and Paras Unit 3 for FY 2007-08 and FY 2008-09**

Particulars	Units	Parli Unit 6				Paras Unit 3	
		FY 2007-08		FY 2008-09		FY 2008-09	
		MSPGCL	Approved	MSPGCL	Approved	MSPGCL	Approved
Installed Capacity	MW	250	250	250	250	250	250
Availability	%	65.40%	80.00%	54.61%	80.00%	44.47%	80.00%
Gross Generation	MU	591	591	1133	1133	946.76	946.76
Auxiliary Consumption	%	10.60%	9.50%	11.51%	9.04%	11.68%	9.25%
Station Heat Rate	kcal/kWh	2797	2600	3082	2508	3160	2549
SFOC	ml/kWh	12.97	4.50	8.63	2.19	23.84	3.23
Transit Loss	%	0.05%	0.8%	0.82%	0.8%	3.28%	0.8%

The Commission observes that the main reasons for higher fuel cost are very high Station Heat Rate and Secondary fuel oil consumption. MSPGCL submitted that the reasons for higher SHR and SFOC are partial loading of the Units. MSPGCL further submitted that these Units have been facing various technical issues which have resulted into frequent outages and downtime. This resulted into lower SHR and higher oil support.

The Commission has gone through the submissions and is of the view that since, these Units are new and that 250 MW Units are based on proven technologies hence they are expected to operate at maximum efficiency. Therefore, the performance parameters as submitted by MSPGCL cannot be allowed. Considering the normative performance parameters, the Commission has computed fuel cost for both the Units. For computing the fuel costs, the Commission has taken fuel price and calorific value as submitted by MSPGCL. The Commission has adjusted the fuel price to the extent of the allowable normative transit loss of 0.8% for FY 2007-08 and FY 2008-09. The fuel prices and calorific value as considered by the Commission are as shown in the tables below.

**Table: Fuel Price Approved for FY 2007-08 and FY 2008-09**

Generating Stations	Units	Parli Unit 6		Paras Unit 3
		FY 2007-08	FY 2008-	FY 2008-09
Domestic Coal	Rs/MT	1,893	1,719	1611
Imported Coal	Rs/MT	4,545	4,545	--
Washed Coal	Rs/MT	2,262	1,947	1713
HFO	Rs/KL	27,801	28,363	30204
LDO	Rs/KL	31,779	32,084	35620



**Table: Calorific Value of Fuels for FY 2007-08 and FY 2008-09**

Generating Stations	Units	Parli Unit 6		Paras Unit 3
Fuel		FY 2007-08	FY 2008-09	FY 2008-09
Domestic Coal	kcal/Kg	3,609	3,897	3633
Imported Coal	kcal/Kg	-	6,135	--
Washed Coal	kcal/Kg	4,115	4,208	3812
HFO	kcal/Ltr	10,227	10,095	10143
LDO	kcal/Ltr	10,701	10,618	10424

The Commission has considered the other variable charges at the same levels as submitted by MSPGCL for FY 2007-08 and FY 2008-09.

The Commission therefore approves total Fuel Cost including other variable charges for both the Units as shown in the table below:

**Table: Total Variable Charges as approved by the Commission (Rs. Crore)**

Name of the Plant	FY 2007-08			FY 2008-09		
	Approved in MYT Order	MSPGCL	Approved after Truing Up	Approved in MYT Order	MSPGCL	Approved after Truing Up
Parli Unit 6	89.41	106.41	92.55	267.13	183.54	144.14
Paras Unit 3	-	-	-	122.14	194.81	121.86

## 2.2. O&M EXPENSES

**Parli Unit 6:** The Commission, in its Order dated October 21, 2009, in Case No. 26 of 2008 had approved Rs 12.35 Crore under O&M expense, considering the pro-rata operation of the power station for five months (Nov-Mar) in FY 2007-08 and Rs 31.24 Crore in FY 2008-09. The Commission had approved Rs 31.24 Crore of O&M expense for



FY 2008-09 considering a normative allowance of Rs. 12.496 lakh/MW as per the provisions of MERC Tariff Regulations.

**Paras Unit 3:** The Commission, in its Order dated December 15, 2009 in Case No. 95 of 2008, had approved O&M expenses of Rs 31.24 Crore for FY 2008-09 considering a normative allowance of Rs 12.496 Lakh/MW.

MSPGCL submitted that the Commission, in its Order dated September 12, 2010 in Case No. 102 of 2009, which included truing up of expenses and revenue for FY 2008-09 for existing stations of MSPGCL, had approved Rs. 90.55 Crore as impact of pay revision for existing stations (out of the petitioned impact of Rs. 95 Crore) and had excluded Rs. 4.55 Crore for Paras Unit-3 and Parli Unit 6. Accordingly, MSPGCL in its Petition, sought Rs. 2.275 Crore (pro-rata) to be approved additionally for both the Units along with O&M expenses of FY 2008-09. The Petitioner further submitted that the impact due to pay revision is recurring in nature and should form the base for all successive year's O&M allowance.

MSPGCL further submitted that it has been successful in restricting its O&M expenses within the approved limits. The actual expense for Parli Unit 6 was Rs 8.12 Crore and 28.07 Crore as against the approved O&M expense of Rs 12.35 Crore and Rs. 31.24 Crore for FY 2007-08 and FY 2008-09, respectively. The actual expense for Paras Unit 3 was Rs 16.87 Crore in FY 2008-09 as against Rs. 31.24 Core as approved in MYT order.

MSPGCL submitted that for the purpose of true-up computation for Parli Unit 6 and Paras Unit 3, it is seeking the normative O&M expenses as approved by the Commission in its MYT Order and the impact of pay revision of Rs. 2.275 Crore for each Unit.

The Commission has considered normative O&M expenses as allowed by the Commission in its MYT Order for both the Units for truing up purposes. The Commission also allows the impact of pay revision of Rs. 2.275 Crore for each Unit as requested by MSPGCL.

The Table below summarises O&M expenses as allowed by the Commission in its MYT Order, O&M expenses incurred by MSPGCL and now approved by the Commission after final truing up.

**Table: O&M Expenses approved for FY 2007-08 and FY 2008-09 (Rs Crore)**

Particulars	Parli Unit 6		Paras Unit 3
	FY 2007-08	FY 2008-09	FY 2008-09



Particulars	Parli Unit 6		Paras Unit 3
	FY 2007-08	FY 2008-09	FY 2008-09
Approved O&M Expenses	12.35	31.24	31.24
Actual O&M Expenses	8.12	28.07	16.87
<b>O&amp;M Expenses Trued up</b>	<b>12.35</b>	<b>33.52</b>	<b>33.52</b>

However, the Commission has considered the sharing of efficiency gains in O&M expenses (i.e., variation between expenses approved in MYT Order and expenses approved after truing up based on actual expense) between MSPGCL and Distribution Licensee (MSEDCL) in accordance with the provisions of MERC Tariff Regulations as elaborated in Section 2.12 and 2.13 of the Order.

### **2.3. CAPITAL EXPENDITURE AND CAPITALISATION**

#### **Parli Unit 6**

In its MYT Petition, MSPGCL had submitted that the capital cost of the Parli Unit 6 as Rs 1,462.33 Crore. However, the Commission had approved the capital cost as on COD as Rs 1,155.35 Crore.

#### **Paras Unit 3**

In its MYT Petition, MSPGCL had submitted that the capital cost of the Paras Unit 3 as Rs 1,543.28 Crore. However, the Commission had approved the capital cost as on COD as Rs 1,207.29 Crore.

MSPGCL submitted that it has preferred Appeals from the Commission's Orders dated October 21, 2009 in Case No. 26 of 2008 and December 15, 2009 in Case No. 95 of 2008 before ATE for variation in Capital Costs approved by the Commission with respect to the actual approved costs.

In the said Appeals, MSPGCL has challenged the methodology adopted by the Commission for approving the various components of Capital Cost. MSPGCL has raised its concern on the disallowance of costs associated with the following:

- Hard Cost of the Project
- Interest During Construction and Financing Charges
- Overheads



MSPGCL further submitted that subsequent to filing of appeals, MSPGCL had appointed an independent chartered accountant firm (M/s Bhushan Rastogi & Associates, Chartered Accountants) to certify its submissions made before the Commission and the ATE.

MSPGCL submitted that the need for appointment of independent Chartered Accountant also arose on account of the following:

- a. As a standard practice among Utilities, the financial costs are captured in such a manner where the emphasis is on accounting of all the costs under the prescribed Chart of Accounts. The scheme of Chart of Accounts was prescribed under Annexure II of the Electricity (Supply) Annual Account Rules, 1985 by the Government of India with a view to bring uniformity in the accounting system across States. The scheme of codification has been so evolved that transactions of similar nature are grouped together. The whole system is divided into 11 parts as detailed below:

Account Code	Head of Account
AG 10 to 16	Capital Expenditure and Fixed Assets
AG 17 to 19	Deferred Costs and Intangible Assets
AG 20 to 28	Investments, Current Assets, Loans and Advances
AG 30 to 37	Inter Unit Accounts
AG 40 to 49	Current and Accrued Liabilities
AG 50 to 54	Capital Liabilities and Other Borrowings
AG 55 to 59	Reserves and Surplus
AG 60 to 69	Incomes
AG 70 to 89	Expenses and Losses
AG 91	Cost and Revenue at Trial Stage
AG 92	Memorandum accounts for recording numbers of units of Power Purchase, Generation, Sale, etc.

AG-10, which pertains to Accounting for Fixed Assets, is further classified as follows:

Account Code	Head of Account
AG 10.1	Land and Land Rights
AG 10.2	Buildings
AG 10.3	Hydraulic Works
AG 10.4	Other Civil Works
AG 10.5	Plant and Machinery
AG 10.6	Lines, Cables and Network, etc
AG 10.7	Vehicles
AG 10.8	Furniture and Fixtures



Account Code	Head of Account
AG 10.9	Office Equipments

- b. MSPGCL further submitted that information desired by the Commission in Form 3.1 towards distinct works packages was not captured in such formats and often led to grouping of cost heads purely as an academic exercise for the purpose of furnishing the information as per the Formats of the Commission. While the overall cost remained the same (as in the books of accounts), however, the said grouping in some cases was found not in line with the books of accounts.
- c. In order to verify these classifications and align the accounting vis-à-vis the regulatory submissions, MSPGCL suo-motu undertook the aforementioned certification exercise.

MSPGCL submitted that in its revised APR Petitions, MSPGCL has, therefore, considered the findings of the Chartered Accountant Firm with respect to the break-up of capital cost under various heads as per the books of accounts. A comparison of cost as on COD as submitted by MSPGCL in its MYT Petitions, as submitted in original APR Petition and as re-stated based on CA certification is given in following Table:

*Table: Reasons for Change in Capital Cost (Rs Crore)*

Particulars	Parli Unit 6			Paras Unit 3		
	Submission in MYT Petition	Original Submission APR Petition	Re-stated based on CA Certification	Submission in MYT Petition	Original Submission APR Petition	Re-stated based on CA Certification
Works Cost	1029.32	1183.84	1111.17	1140.53	1279.21	1143.09
Overheads	154.55		72.36	139.28		122.06
Trial Run Cost	66.05	64.425	64.80	47.40	47.40	47.40
<b>Project Cost (excl IDC)</b>	<b>1249.92</b>	<b>1248.26</b>	<b>1248.33</b>	<b>1327.21</b>	<b>1326.61</b>	<b>1312.55</b>
Actual IDC	104.69	104.69	106.94	181.04	181.04	180.83
<b>Capital Cost as on CoD (excl Differential IDC)</b>	<b>1354.61</b>	<b>1352.95</b>	<b>1355.27</b>	<b>1508.25</b>	<b>1507.65</b>	<b>1493.38</b>
Differential IDC	107.72	107.72	81.32*	35.03	35.03	35.24



Particulars	Parli Unit 6			Paras Unit 3		
	Submission in MYT Petition	Original Submission APR Petition	Re-stated based on CA Certification	Submission in MYT Petition	Original Submission APR Petition	Re-stated based on CA Certification
Capital Cost as on CoD (incl Differential IDC)	1462.33	1460.67	1436.59	1543.28	1543.28	1528.62

\* MSPGCL submitted that IDC amounting to Rs. 24.15 crore has been capitalized in FY 2008-09 (after CoD but before cut-off date) as the respective packages to which such IDC was allocated were completed in FY 2008-09. Hence, it has not been accounted for in the capital cost as on CoD. Out of the total IDC and FC incurred (Rs. 212.41 crore), Rs. 188.26 crore has been considered in capital cost as on CoD and balance Rs. 24.15 crore considered in additional capitalization for FY 2008-09.

In the revised Petition for Parli Unit 6, MSPGCL has considered the capital cost as on CoD at Rs. 1436.59 Crore including Differential IDC of Rs 81.32 Crore, before deducting the net cost of trial run expenses, cost of spares and cost of common facilities.

In the revised Petition for Paras Unit 3, MSPGCL has considered the capital cost as on CoD at Rs. 1528.62 Crore, before deducting the net cost of trial run expenses, cost of spares and cost of common facilities.

MSPGCL submitted under Scenario-2 (Capital Cost based on the principles adopted by the Commission for approving the various cost elements in its MYT Orders for both the Units), that as the capital cost as on CoD as per the CA certification has undergone a change, therefore, MSPGCL has adopted similar principles as considered by the Commission to work out the approved capital cost.

MSPGCL submitted that in its MYT Orders the Commission has reduced the capital cost under the following heads:

- Cost of trial run operations
- Cost of common facilities
- Cost of spares.



In this regard, MSPGCL submitted that the aforementioned heads have been certified as follows:

**Table: Cost of Trail run, Common Facilities and Spares for Parli Unit 6**

Parameters		Submission in MYT	As per CA Certificate
Cost of trial operations		66.05	64.8
Cost of common facilities		81.29	95.3
a.	<i>Land &amp; Site Development</i>	0.99	1.25
b.	<i>Approach Road</i>	1.37	1.72
c.	<i>Land development/wall</i>	15.5	16.57
d.	<i>Fire detection system</i>	1.1	1.31
e.	<i>CHP</i>	34.69	38.97
f.	<i>RWP Reservoir</i>	4.51	6.84
g.	<i>Lab/Workshops</i>	1.77	2.25
h.	<i>Chimney</i>	3.54	4.02
i.	<i>FOH</i>	4.32	4.85
j.	<i>Railway siding</i>	13.35	17.05
k.	<i>Raising of Khadka Barrage</i>	-	0.25
l.	<i>Fire station building</i>	0.18	0.22
Cost of Spares		17.65	17.65
<b>Total</b>		<b>164.99</b>	<b>177.75</b>

Therefore, for working out the allowable capital cost as per the Commission's methodology, for Parli Unit 6, MSPGCL has considered Rs 177.75 Crore towards cost of trial run expenses, cost of common facilities and cost of spares on similar lines as considered by the Commission in the MYT Order.

**Table: Cost of Trail run, Common Facilities and Spares for Paras Unit 3**

Parameters		Submission in MYT	As per CA Certificate
Cost of trial operations		47.40	47.40
Cost of common facilities		78.30	119.45
a.	<i>Land &amp; Site development</i>	1.46	6.79
b.	<i>Fuel Handling and storage system</i>	2.11	2.54
c.	<i>Ash Handling System</i>	7.81	10.18



Parameters		Submission in MYT	As per CA Certificate
d.	Coal Handling Plant	43.67	60.02
e.	Rolling Stock and Locomotives	0.30	0.39
f.	Fire fighting System	1.53	2.53
g.	Main plant/Adm. Building	15.58	27.78
h.	Construction of chimney	4.77	7.58
i.	Compound wall	1.08	1.63
Cost of Spares		21.84	21.84
<b>Total</b>		<b>147.54</b>	<b>188.69</b>

Therefore, while working out the allowable capital cost as per the Commission's methodology, for its Paras Unit 3, MSPGCL has considered Rs 188.69 Crore towards cost of trial run expenses, cost of common facilities and cost of spares on similar lines as considered by the Commission in the MYT Order.

### 2.3.1. Cost of trial run expenses

#### **Parli Unit 6:**

MSPGCL submitted that the Commission, in its Order dated October 21, 2009 in Case No. 26 of 2008, had allowed MSPGCL to recover the under-recovered fuel cost of trial run period of Rs 66.05 Crore (Cost of fuel Rs 125.92 Crore – Revenue from infirm power Rs 59.86 Crore) from MSEDCL in six equal monthly instalments.

MSPGCL submitted that the cost of fuel for generation of infirm power for its Parli Unit 6 was Rs 124.285 Crore and there was an inadvertent error by the Petitioner in submitting the figure as Rs 125.92 Crore. Further, revenue from infirm power was Rs. 60.01 Crore against Rs. 59.86 Crore submitted earlier. Thus, the under-recovered fuel cost of trial run period is Rs 64.28<sup>[1]</sup> Crore (Cost of fuel of Rs 124.285 Crore – Revenue from infirm power of Rs 60.01 Crore). MSPGCL further submitted that such cost for Parli Unit 6, which MSPGCL had included in the capital cost in the initial submission has been reduced from the capital cost in FY 2009-10 in its accounts. However, for the purposes of tariff

<sup>1</sup> In the accounts of Parli Unit-6, Rs. 64.28 Crore has been considered over two accounting periods. Rs. 64.80 has been debited upto CoD and Rs. 0.52 Crore has been written back in FY 2008-09. However the net cost of trial run expenses is Rs. 64.28 Crore.



filing, such cost has been reduced from the capital cost as on CoD so that the depreciation is not charged on the consumer due to such cost.

### **Paras Unit 3:**

MSPGCL submitted that the Commission, in its Order dated December 15, 2009 in Case No. 95 of 2008, had allowed MSPGCL to recover the under-recovered fuel cost of trial run period of Rs 47.40 Crore from MSEDCL in six equal monthly instalments. Accordingly, such cost which MSPGCL had included in the capital cost in the initial submission, has been reduced from the capital cost in FY 2009-10 in its accounts. However, for the purposes of tariff filing, such cost has been reduced from the capital cost as on CoD so that the depreciation is not charged on the consumer due to such cost.

#### **2.3.2. Liquidated Damages**

MSPGCL submitted that it has levied Liquidated Damages (LD) on M/s BHEL and others on account of delay in commissioning of the project. However, it has not reduced its capital cost on account of the LD recovered from M/s BHEL and others. Instead, it has transferred such amounts to “Retention Money from Suppliers/Contractors – Account”. The recovery from LD has not been deducted from the capital cost as there might be litigation from the suppliers/contractors on the issue of levy of LDs. It has been decided by MSPGCL to reduce the capital cost after the passage of sometime from the date of imposition of LD so that it would ensure that such LDs would not be required to be reversed in any eventuality.

#### **2.3.3. Final Capital cost as on COD under both scenarios**

MSPGCL submitted that it has considered the capital cost as per CA certification under Scenario -1 and the capital cost adopting the principles followed by the Commission in the MYT Order under Scenario-2. The details of capital cost under the two scenarios as submitted by MSPGCL are as follows;

***Table: Final Capital Cost as on COD of Parli Unit 6***

Particulars	MYT		Re stated cost as per CA firm	MSPGCL	
	Petition	Approved		Scenario -1	Scenario-2 Estimated Approval on Re-stated Cost



Particulars	MYT		Re stated cost as per CA firm	MSPGCL	
	Petition	Approved		Scenario -1	Scenario-2 Estimated Approval on Re-stated Cost
Works Cost	1029.32	1029.32	1111.17 <sup>2</sup>	1111.17	1111.17
Overheads	154.55	89.00	72.36	72.36	72.36 <sup>3</sup>
Trial Run Cost	66.05	66.05	64.80	64.80	64.80
<b>Project Cost (excl IDC)</b>	<b>1249.92</b>	<b>1184.37</b>	<b>1248.33</b>	<b>1248.33</b>	<b>1248.33</b>
IDC	104.69	135.97	106.94	106.94	142.56 <sup>4</sup>
<b>Project Cost (incl IDC)</b>	<b>1354.61</b>	<b>1320.34</b>	<b>1355.27</b>	<b>1355.27</b>	<b>1390.89</b>
Less: Trial-run cost	-	66.05	64.80	64.80	64.80
Less: Cost of common facilities	-	81.29	-	-	95.30 <sup>5</sup>
Less: Cost of spares	-	17.65	-	-	17.65
<b>Capital Cost as on COD</b>	<b>1354.61</b>	<b>1155.35</b>	<b>1290.47</b>	<b>1290.47</b>	<b>1213.14</b>
<b>(excl Differential IDC)</b>					
Differential IDC	107.72	-	81.32	81.32	-
<b>Capital Cost as on COD</b>	<b>1462.33</b>	<b>1155.35</b>	<b>1371.79</b>	<b>1371.79</b>	<b>1213.14</b>

<sup>2</sup> Rectification JV of Rs 0.04 Crore pertaining to withdrawal of assets which were wrongly transferred to the capital cost on CoD passed in period Nov-Mar 2008 considered above for depiction purposes.

<sup>3</sup> Overheads have been considered to be approved at actuals as they are within 8.09% of the revised capital cost excluding IDC and FC

<sup>4</sup> IDC has been pro-rata computed on the revised project cost excl IDC

<sup>5</sup> Cost of common facilities has been re-stated from Rs. 81.29 Crore to Rs. 95.30 Crore due to the revision in the package wise capital cost



Particulars	MYT		Re stated cost as per CA firm	MSPGCL	
	Petition	Approved		Scenario -1	Scenario-2 Estimated Approval on Re-stated Cost
(incl Differential IDC)					

*Table: Final Capital Cost as on COD of Paras Unit 3*

Particulars	MYT		Re stated cost as per CA firm	MSPGCL	
	Petition	Approved		Scenario-1	Scenario-2 Estimated Approval on Re-stated Cost
Works Cost	1140.53	1118.69	1143.09	1143.09	1143.09
Overheads	139.28	82.23	122.06	122.06	82.4 <sup>6</sup>
Trial Run Cost	47.40	47.40	47.40	47.40	47.40
<b>Project Cost (excl IDC)</b>	<b>1327.21</b>	<b>1248.32</b>	<b>1312.55</b>	<b>1312.55</b>	<b>1272.91</b>
IDC	181.04	103.14	180.83	180.83	91.00 <sup>7</sup>
<b>Project Cost (incl IDC)</b>	<b>1508.25</b>	<b>1351.46</b>	<b>1493.38</b>	<b>1493.38</b>	<b>1363.91</b>
Less: Trial-run cost		47.40	47.40	47.40	47.40
Less: Cost of common facilities		78.30			119.45 <sup>8</sup>
Less: Cost of spares					21.84
Less: Interest Subsidy under AG&SP		18.47			
<b>Capital Cost as on COD (excl Differential IDC)</b>	<b>1508.25</b>	<b>1207.29</b>	<b>1445.98</b>	<b>1445.98</b>	<b>1175.22</b>
Diff IDC	<b>35.03</b>	-	<b>35.24</b>	<b>35.24</b>	
<b>Capital Cost as on COD (incl Differential IDC)</b>	<b>1543.28</b>	<b>1207.29</b>	<b>1481.22</b>	<b>1481.22</b>	<b>1175.22</b>

The Commission is of the view that the capital cost as submitted by MSPGCL has undergone substantial changes vis-a-vis the submissions made in the MYT Petitions as well as in the original APR Petition. The Capital Cost submitted by MSPGCL under

<sup>6</sup> Overheads have been projected to be approved at 6.85% of the revised capital cost excluding IDC and FC

<sup>7</sup> IDC has been pro-rata computed on the revised project cost excl IDC

<sup>8</sup> Cost of common facilities has been re-stated from Rs. 78.30 Crore to Rs. 119.45 Crore due to the revision in the package wise capital cost



Scenario 2 is substantially different than the Capital Cost approved by the Commission in its MYT Orders for both the Units. The Commission is of the view that MSPGCL, in its revised APR Petition, has submitted the break-up of Capital Cost as per CA certification, which is substantially different than the Cost Break-up submitted by MSPGCL in the MYT Petitions, which were based on the audited accounts. The analysis of detailed break-up indicates that the Works Cost have increased while the Overheads component has been reduced, as compared to that submitted by MSPGCL in the MYT Petition, and approved by the Commission in its MYT Orders.

The Commission, in its MYT Orders, has already held that the Capital Cost (Works Cost) of these two Units is significantly high in absolute terms as well as in comparison to the order placement costs, considering the fact that these Units were brown-field expansion Projects at existing Stations.

The Commission is of the view that if the revised Works Cost as submitted by MSPGCL based on re-stated cost by CA is considered, it will further increase the total Capital Cost of these two Units in absolute terms, which as observed by the Commission is already on the higher side.

Further, as submitted by MSPGCL in its APR Petition, MSPGCL has filed Appeals with the ATE on the MYT Orders of the Commission and has raised the issues of variation in Capital Cost approved by the Commission and actual Capital Cost. The Commission is of the view that as the Judgment on the Appeals filed by MSPGCL with ATE against the capital cost approved by the Commission for Parli Unit 6 and Paras Unit 3 in its MYT Orders is still pending, it may not be appropriate to revise the Capital Cost of these Units as on COD at this stage. The Commission will revise the Capital Cost of Parli Unit 6 and Paras Unit 3 as on COD, if required, after the Judgment on Appeals filed by the MSPGCL and at that time only, the Commission will re-examine the Capital Cost re-statement submitted by MSPGCL as certified by CA.

The Commission, therefore, for the purpose of this Order has considered the Capital Cost as approved by the Commission for Parli Unit 6 and Paras Unit 3 in its MYT Orders dated October 21, 2009 and December 15, 2009 respectively.

Accordingly, the Commission has considered Capital Cost as on COD for Parli Unit 6 as **Rs. 1155.35 Crore** and Paras Unit 3 as **Rs. 1207.29 Crore**.



**Table: Approved Capital Cost as on COD (Rs. crore)**

<b>Stations</b>	<b>MYT</b>	<b>Claimed</b>	<b>Approved</b>
Parli Unit 6	1155.35	1213.18	1155.35
Paras Unit 3	1207.29	1175.22	1207.29

### **2.3.4. Additional Capitalization in FY 2007-08**

#### **Parli Unit 6:**

MSPGCL submitted that though there was no capitalization in the books of accounts during the period from November to March of FY 2007-08, however, MSPGCL has passed a rectification JV of Rs 0.04 Crore, where it had withdrawn some assets, which were wrongly transferred to the capital cost on CoD. Thus, equity has been reduced to such effect as on the CoD date itself.

### **2.3.5. Additional Capitalisation in FY 2008-09**

#### **Parli Unit 6:**

MSPGCL submitted that the additional capitalization during FY 2008-09 was Rs. 139.71 Crore for its Parli Unit 6. MSPGCL submitted that it has worked out the package-wise details of such additional capitalization, which have been certified by the Chartered Accountant Firm. MSPGCL submitted that the additional capitalization has been funded from internal accruals.

MSPGCL submitted that IDC to the tune of Rs. 24.15 Crore has been capitalized in FY 2008-09 for its Parli Unit 6. Such IDC pertained to assets, which have been completed after the CoD date but upto the cut-off date and the same is in line with AS-16 (Borrowing Costs). MSPGCL further submitted that for Parli Unit 6, the expenditure was being allocated based on the expenditure incurred by the Unit to various packages undergoing construction. When such packages/assets remained incomplete upto CoD, then the overheads like IDC were capitalized in subsequent periods when the asset was completed, i.e., after CoD date but up to the cut-off date.

MSPGCL further submitted that IDC was not calculated after CoD, but the amount of IDC proportionate to that component was capitalized at a later stage, which is in line with AS 16 – Borrowing Costs, as reproduced below:

*“When the construction of a qualifying asset is completed in parts and a completed part is capable of being used while construction continues for the other parts,*



*capitalisation of borrowing costs in relation to a part should cease when substantially all the activities necessary to prepare that part for its intended use or sale are complete.”*

The Commission, in its data gaps sent on February 07, 2011 asked MSPGCL to reconcile the amount shown in Form 4 under asset addition during the year as Rs 139.72 Crore while in Form 5.4, MSPGCL has shown asset capitalisation of Rs 121.13 Crore. MSPGCL was asked to reconcile the differences with proper justification. MSPGCL, in its reply dated March 03, 2011, submitted revised Form 5.4 and submitted that the assets capitalised during the year was Rs 139.72 Crore.

The Commission, further in the data gaps sent on February 07, 2011, asked MSPGCL to submit the scheme-wise details of the additional capitalisation claimed by MSPGCL. In its reply dated March 3, 2011, MSPGCL stated that the capital expenditure schemes for FY 2008-09 and FY 2009-10 in Form 5.4 are included in original cost of the project and are classified as works deferred for execution. MSPGCL further submitted that the items appearing under the capitalization were also present in the Petition for determination of Final Tariff for the Unit and therefore signifies the fact that they were part of the original scope of work.

As regards the additional capitalisation after COD of the Project, Regulation 30.2 and 30.3 of MERC Tariff Regulations stipulates as follows:

*"30.2 Additional Capitalisation: The following capital expenditure within the original scope of work actually incurred after the date of commissioning and up to the cut off date may be allowed by the Commission for inclusion in the original cost of project, subject to prudence check:*

- (i) Deferred liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in Regulation 30.1;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) On account of change in law.*

*Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for determination of tariff:*



*Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for determination of tariff after the date of commissioning of the generating station.*

30.3 *The capital expenditure of the following nature actually incurred after the cut-off date may be allowed by the Commission for inclusion in the original cost of project, subject to prudence check:*

- (i) Deferred liabilities relating to works/services within the original scope of work;*
- (ii) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- (iii) On account of change in law;*
- (iv) Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost; and*
- (v) Deferred works relating to ash pond or ash handling system in the original scope of work.”*

As the additional capitalisation claimed by MSPGCL is under the head “Works Deferred for Execution” and the additional capitalisation for works deferred for execution is permissible under the provisions of MERC Tariff Regulations, the Commission accordingly allows additional capitalisation as submitted by MSPGCL for FY 2007-08 and FY 2008-09 as (0.04) Crore and Rs 139.72 Crore, respectively.

### **Paras Unit 3**

MSPGCL submitted that against the additional capitalisation of Rs. 115.58 Crore submitted in the original APR Petition, the actual capitalisation is Rs. 115.39 Crore. The Petitioner has worked out the package-wise details of such additional capitalisation, which have been certified by the Chartered Accountant Firm.

The Commission, in its data gaps sent on February 7, 2011, asked MSPGCL to reconcile its submission for FY 2008-09 in Form 5.4, where it has submitted opening and closing CWIP as '0' and the investment during the year as Rs 115.39 Crore, but the amount capitalised was shown as Rs 1210.50 Crore. MSPGCL, in its reply, submitted revised Form 5.4. The additional capitalisation as per the revised submission was submitted as Rs. 115.58 Crore.



Further, the Commission in its data gaps sent on February 7, 2011, asked MSPGCL to submit the details of year-wise Additional Capitalisation with justification of capitalisation in accordance with Regulation 30.2 and 30.3 of MERC Tariff Regulations, 2005. MSPGCL, in its reply dated March 03, 2011, submitted that Capital Expenditure schemes for FY 2008-09 and FY 2009-10 in Form 5.4 are included in original cost of the project and are classified as works deferred for execution, and that it may be appreciated that the items appearing under the capitalization were also present in the Petition for determination of Final Tariff for the Unit and therefore signifies the fact that they were part of the original scope of work.

As the additional capitalisation claimed by MSPGCL is under the head “Works Deferred for Execution” and the additional capitalisation for works deferred for execution is permissible under the provisions of MERC Tariff Regulations, the Commission accordingly allows additional capitalisation as submitted by MSPGCL for FY 2008-09 as Rs 115.58 Crore.

### **2.3.6. Debt Equity Ratio for Parli Unit 6 and Paras Unit 3 under Scenario-2**

MSPGCL submitted that the debt - equity ratio as on CoD under Scenario-2 for Parli Unit 6 is considered at 72.75:27.25, same as that approved by the Commission in the MYT Order dated October 21, 2009. The overall capital cost is considered at Rs. 1,213.18 Crore after reducing the cost of disallowed spares, cost of trial run expenses and cost of common facilities. MSPGCL further submitted that the additional capitalization in FY 2007-08 and FY 2008-09 is funded from internal accruals.

The financing plan of Parli Unit 6 for FY 2007-08 and FY 2008-09 under Scenario-2 is provided in the table below:

#### ***Debt Equity Ratio for Parli Unit 6 – Scenario-2 (Rs Crore)***

<b>Particulars</b>	<b>As on CoD</b>	<b>As on 31/3/2008</b>	<b>As on 31/3/2009</b>
Loan From PFC	746.46	746.46	746.46
Loan From GoM	136.13	136.13	136.13
<b>Total Loan</b>	<b>882.59</b>	<b>882.59</b>	<b>882.59</b>
Domestic (GoM)	3	3	3
Internal Accruals	327.59	327.55	467.27



Particulars	As on CoD	As on 31/3/2008	As on 31/3/2009
<b>Total Equity</b>	<b>330.59</b>	<b>330.55</b>	<b>470.27</b>
<b>Total Gross Fixed Assets</b>	<b>1213.18</b>	<b>1213.14</b>	<b>1352.86</b>
<b>Debt : Equity Ratio</b>	<b>72.75 : 27.25</b>	<b>73:27:00</b>	<b>65:35:00</b>

MSPGCL submitted that the debt - equity ratio as on CoD under Scenario-2 for Paras Unit No. 3 is considered at 75.80:24.20, same as that considered by the Commission in the MYT Order dated December 15, 2009. The overall capital cost is considered at Rs. 1175.22 Crore after reducing the cost of disallowed spares, cost of trial run expenses and cost of common facilities. MSPGCL further submitted that the additional capitalization in FY 2008-09 is funded from internal accruals.

MSPGCL submitted the financing plan of Paras Unit 3 for FY 2008-09 under Scenario-2 as provided in the table below:

*Table: Debt Equity Ratio for Paras Unit 3 – Scenario-2 (Rs Crore)*

Particulars	As on CoD	As on 31/3/2009
<b>Loan</b>		
Loan From PFC	770.02	770.02
Loan From GoM	120.80	120.80
<b>Total Loan</b>	<b>890.82</b>	<b>890.82</b>
<b>Equity-</b>		
Domestic (GoM)	39.00	39.00
Internal Accruals	245.40	360.80
<b>Total Equity</b>	<b>284.40</b>	<b>399.80</b>
<b>Total Gross Fixed Assets</b>	<b>1175.22</b>	<b>1290.61</b>
<b>Debt : Equity Ratio</b>	<b>75.8:24.2</b>	<b>69:31</b>

MSPGCL submitted that the equity employed in the succeeding years is higher than the prescribed normative level of 30% for both the Units, as the additional capitalization is funded by internal accruals. MSPGCL submitted that the actual financing pattern may be accepted for the purpose of tariff determination. MSPGCL further submitted that in case the Commission determines the tariff based on the normative debt:equity ratio of 70:30,



then the equity component above normative equity of 30% would be eligible for normative interest on debt.

Regulation 31.2 of MERC Tariff Regulations stipulates the debt:equity ratio of 70:30 for any generating station commissioned after the date of notification of Regulations. Accordingly, the Commission has considered normative debt equity ratio of 70:30 while approving equity eligible for return and equity employed in excess of 30% has been considered as normative loan and accordingly interest on normative loan has been allowed. Considering the above approach, the capital structure for Parli Unit 6 and Paras Unit 3 as approved by the Commission is shown in the table below.

*Table: Approved Capital Structure for Parli Unit 6 (Rs Crore)*

Capital Cost	COD	31/03/2008	31/03/2009
Debt	840.52	840.52	840.52
<b>Additional Capitalisation</b>	<b>0</b>	<b>(0.04)</b>	<b>139.72</b>
<b>Additional Capitalisation Funding</b>			
Normative Loan	0.00	0.00	66.01
Equity Added			73.72
Total Equity	314.83	314.79	388.51
<b>Total Capital Cost</b>	<b>1155.35</b>	<b>1,155.31</b>	<b>1,295.04</b>
<b>Debt/Equity Ratio</b>	<b>72.75:27.25</b>	<b>73.0:27.0</b>	<b>70.0:30.0</b>

*Table: Approved Capital Structure for Paras Unit 3 (Rs Crore)*

Capital Cost	COD	31/03/2009
Debt	915.14	915.14
<b>Additional Capitalisation</b>	<b>0</b>	<b>115.58</b>
<b>Additional Capitalisation Funding</b>		
Normative Loan	0.00	10.87
Equity Added		104.71
Total Equity	292.15	396.86
<b>Total Capital Cost</b>	<b>1207.29</b>	<b>1,322.87</b>
<b>Debt/Equity Ratio</b>	<b>75.8:24.2</b>	<b>70.0:30.0</b>

## 2.4. INTEREST EXPENSES

MSPGCL submitted that as per Regulation 31.1 and 34.3 of the MERC Tariff Regulations, 2005, the interest expense on the amount of approved loan capital taken to finance the capital expenditure is allowed as part of Annual Fixed Charges.



#### 2.4.1. Interest Cost for FY 2007-08 for Parli Unit 6

MSPGCL submitted that the actual gross long-term interest expenses for FY 2007-08 are Rs 342.71 Crore for MSPGCL as an entity. MSPGCL submitted the details of interest expenses on long-term borrowings as identified for various projects in the table below:

*Table: Identification of loans amongst stations for FY 2007-08 (Rs. Crore)*

Summary	Outstanding Loan at the beginning	Loan drawal during the year	Loan repayment during the year	Balance Outstanding at the end of the year	Interest expense incurred during the year
Generic Loans	58.67	212.69	17.22	254.14	19.71
Project Specific - Thermal + Gas	823.36	31.88	199.99	655.25	57.86
Project Specific – Hydro	72.87	9.92	12.82	69.97	5.11
Paras U#3	1006.94	179.67	95.58	1091.03	121.21
Paras U#4	56.70	286.68	-	343.38	16.22
Parli U#6	1069.00	54.36	88.03	1035.33	93.66
Parli U#7	56.70	274.76	-	331.46	16.79
Other new projects under construction stage	-	523.70	-	523.70	12.14
<b>Grand Total</b>	<b>3144.24</b>	<b>1573.65</b>	<b>413.63</b>	<b>4304.26</b>	<b>342.71</b>

MSPGCL further submitted the details of capitalization of long-term interest expense as per the table below:

*Table: Details of Interest Capitalization in FY 2007-08*

Loan	Amt (Rs Cr)
Generic Loans	-
Project Specific - Thermal + Gas	-
Project Specific – Hydro	-
Paras U#3	121.21
Paras U#4	16.22
Parli U#6 (upto CoD IDC, after CoD charged to Revenue)	52.44



Loan	Amt (Rs Cr)
Parli U#7	16.79
Other new projects under construction stage	12.14
<b>Total</b>	<b>218.81</b>

MSPGCL submitted that the loan wise net interest expense for Parli Unit 6 for the period post CoD, i.e., Nov-07 to Mar-08 of FY 2007-08 under Scenario-2 is as per table below:

*Table: Net Interest Expenses for 2007-08 (Nov-07 to Mar-08) - Scenario-2 (Rs Crore)*

Source of Loan	Loan No./ Project	Opening Loan	Drawal during year	Repayment during year	Closing Loan	Interest
PFC	21101011	746.46	-	19.64	726.82	27.43
GOM		136.13	-	4.13	132.00	7.13
<b>Total</b>		<b>882.59</b>	<b>-</b>	<b>23.77</b>	<b>858.82</b>	<b>34.56</b>

#### 2.4.2. Interest Cost for Parli Unit 6 for FY 2008-09

MSPGCL submitted that the actual gross long-term interest expenses for FY 2008-09 are Rs 536.73 Crore for MSPGCL as an entity. The compilation of the interest expenses on long- term borrowings as identified for various projects is tabulated below:

*Table: Identification of loans amongst stations for FY 2008-09 (Rs Crore)*

Summary	Outstand ing Loan at the beginning	Loan drawal during the year	Loan repayment during the year	Balance Outstanding at the end of the year	Interest expense incurred during the year
Generic Loans	254.14	1.17	44.69	210.62	29.86
Project Specific - Thermal + Gas	655.25	58.23	144.05	569.43	49.17
Project Specific – Hydro	69.97	0.70	11.11	59.57	4.92
Paras U#3	1,91.03	-	103.30	987.73	115.84
Paras U#4	343.38	426.51	-	769.89	58.53



Summary	Outstanding Loan at the beginning	Loan drawal during the year	Loan repayment during the year	Balance Outstanding at the end of the year	Interest expense incurred during the year
Parli U#6	1,035.33	-	114.16	921.17	89.78
Parli U#7	331.46	398.99	-	730.45	55.34
Other new projects under construction stage	523.70	1,833.25	-	2,356.95	133.29
<b>Grand Total</b>	<b>4,304.26</b>	<b>2,718.86</b>	<b>417.32</b>	<b>6,605.80</b>	<b>536.73</b>

The Petitioner has considered capitalization of interest expenses for loans pertaining to upcoming Units. The details of capitalization of long-term interest expense are as per table below:

*Table: Details of Interest Capitalization in FY 2008-09*

Loan	Amt (Rs Crore)
Generic Loans	-
Project Specific - Thermal + Gas	-
Project Specific – Hydro	-
Paras U#4	58.33
Parli U#7	55.34
Other new projects under construction stage	133.29
<b>Total</b>	<b>247.16</b>

The loan wise actual net interest expense for Parli Unit 6 for FY 2008-09 under Scenario-2 is as per table below:

Source of Loan	Loan No./ Project	Opening Loan	Drawal during year	Repayment during year	Closing Loan	Interest
PFC	21101011	726.82	-	78.57	648.24	60.72
GOM		132.00	-	16.50	115.50	14.31
<b>Total</b>		<b>858.82</b>	<b>-</b>	<b>95.07</b>	<b>763.74</b>	<b>75.03</b>

MSPGCL submitted that against the net interest expenses of Rs 39 Crore approved by the Commission for FY 2007-08, the actual net interest expense including long term loans is Rs. 34.56 Crore under Scenario-2 and as against approved net interest expense of Rs. 86.07 Crore for FY 2008-09 the actual interest expenses as submitted by MSPGCL is Rs. 75.03 Crore.



### 2.4.3. Paras Unit 3: Interest Cost for FY 2008-09

MSPGC,L in its Petition, submitted that the loan-wise net interest expenses for Paras Unit-3 for FY 2008-09 under Scenario-2 is as per table below:

*Table: Net Interest Expenses for 2008-09 – Scenario-2 (Rs Crore)*

Source of Loan	Loan No./ Project	Opening Loan	Drawl during year	Repayment during year	Closing Loan	Interest
PFC	21101012	770.02	-	70.00	700.01	81.54
GOM		120.80	-	15.10	105.70	13.10
<b>Total</b>		<b>890.82</b>	<b>-</b>	<b>85.10</b>	<b>805.71</b>	<b>94.64</b>

Hence, against the net interest expenses of Rs 99.81 Crore approved by the Commission for FY 2008-09, the actual net interest expense under Scenario-2 is Rs. 94.64 Crore.

For computing interest on loan, the Commission has considered outstanding loan amounts as approved by the Commission in its MYT Orders and the interest rates as submitted by MSPGCL in the current Petition. The Commission has also considered tenure of loan as 10 years.

Normative loan has been considered by the Commission in case the actual equity was found to be exceeding 30%. The Commission, for FY 2007-08 and FY 2008-09, has allowed interest on normative loan at weighted average interest rate of existing loans of the respective Units. For FY 2009-10 and FY 2010-11, the Commission has allowed interest expenses at the rate of 10.5% and 11.00%, respectively. For normative loan, the Commission has considered loan tenure of 10 years. Accordingly, the total interest expenses as approved by the Commission in its MYT Order, interest projected by MSPGCL and that allowed by the Commission for both the Units are as follows.



*Table: Net Interest Expenses allowed for Parli Unit 6 (Rs Crore)*

Particulars	FY 2007-08			FY 2008-09		
	Approved in MYT	MSPGCL	Approved	Approved in MYT	MSPGCL	Approved
<b>A. PFC</b>						
Opening Loan Balance	704.39	746.46	704.39	685.85	726.82	685.85
Repayment During the	18.54	19.64	18.54	76.21	78.57	74.15
Closing Balance	685.85	726.82	685.85	609.65	648.24	611.71
Interest Expenses	32.48	27.43	25.88	71.76	60.72	57.30
<b>B. GoM</b>						
Opening Loan Balance	136.13	136.13	136.13	132.01	132.00	132.00
Repayment During the	4.13	4.13	4.13	16.5	16.50	16.50
Closing Balance	132.01	132.01	132.00	115.50	115.50	115.50
Interest Expenses	6.52	7.13	7.13	14.31	14.31	14.31
<b>C. Normative Loan</b>						
Opening Loan Balance	-	-	-	-	-	-
Drawn During the Year	-	-	-	-	-	66.01
Repayment During the	-	-	-	-	-	-
Closing Balance	-	-	-	-	-	66.01
Interest Expenses	-	-	-	-	-	6.39
<b>Total Interest Expenses</b>	<b>39.00</b>	<b>34.56</b>	<b>33.01</b>	<b>86.07</b>	<b>75.03</b>	<b>78.00</b>

*Table: Net Interest Expenses allowed for Paras Unit 3 (Rs Crore)*

Particulars	FY 2008-09		
	Approved in MYT	MSPGCL	Approved
<b>A. PFC</b>			
Opening Loan Balance	794.34	770.02	794.34
Repayment During the Year	79.43	70.00	72.21
Closing Balance	714.91	700.01	722.13
Interest Expenses	86.78	81.54	84.12
<b>B. GoM</b>			
Opening Loan Balance	120.80	120.80	120.80
Repayment During the Year	15.10	15.10	15.10
Closing Balance	105.70	105.70	105.70
Interest Expenses	13.02	13.10	13.10
<b>C. Normative Loan</b>			
Opening Loan Balance	-	-	-
Drawn During the Year	-	-	10.87
Repayment During the Year	-	-	-
Closing Balance	-	-	10.87
Interest Expenses	-	-	0.61



Particulars	FY 2008-09		
	Approved in MYT	MSPGCL	Approved
<b>Total Interest Expenses</b>	<b>99.80</b>	<b>94.64</b>	<b>97.82</b>

#### 2.4.4. Other Finance Charges for Parli Unit 6

MSPGCL submitted that Regulation 34.3.4 of MERC Tariff Regulations, 2005, stipulates as follows:

*“The Commission shall allow taxes on interest, commitment charges, finance charges and any exchange rate difference arising from foreign currency borrowings, to the extent recognized as interest cost in the books of account of the Generating Company”.*

MSPGCL submitted that the Other Finance Charges mainly comprise of Guarantee Fee payable to GoM and Bank Remittance Charges, Bank Commission, etc.

MSPGCL further submitted that for Parli Unit 6, it has incurred an expense of Rs 7 Crore in FY 2007-08 (Nov-07 to Mar-08) and Rs 15.71 Crore in FY 2008-09 towards guarantee fees payable to GoM for providing guarantee to PFC for providing loan assistance to MSPGCL.

The Commission, in its data gaps, asked MSPGCL for necessary documentary evidence to substantiate the claims made by it. MSPGCL, in reply, submitted that GOM vide GR No PFC-2003/CR-134/NRG-3 dated September 15, 2003 agreed to guarantee the repayment of principal and interest payment thereon in respect of loan availed from PFC for Parli Unit 6 under scheme code 21101011 and for which MSEP/MSPGCL shall pay guarantee fee @ Rs 2 per Rs 100/- per annum.

MSPGCL also submitted that there was no loan drawal after CoD for both Parli Unit-6 and Paras Unit-3. Guarantee fees of Rs. 7 Crore for FY 2007-08 and Rs. 15.71 Crore for FY 2008-09 were actually paid and hence, were considered under the head other financing charges for the purposes of true-up for FY 2007-08 and FY 2008-09.

The Commission after going through the submissions made by MSPGCL, has allowed financing charges as claimed by MSPGCL in addition to interest expenses.

The summary of finance charges for FY 2007-08 (Nov-07 to Mar-08) and FY 2008-09 based on audited accounts have been provided in the Table below:

***Table: Details of Other finance Charges for Parli Unit 6 (Rs Crore)***



Guarantee Fees	FY 2007-08	FY 2008-09
PFC Loan No 21101011	7.00	15.71
<b>Approved</b>	<b>7.00</b>	<b>15.71</b>

For Paras Unit 3, the Petitioner has not claimed any financing charges.

## 2.5. DEPRECIATION AND ADVANCE AGAINST DEPRECIATION (AAD)

MSPGCL submitted that the Commission, in its Order for Parli Unit 6 dated December 15, 2009 in Case No. 26 of 2008 had approved depreciation along with advance against depreciation (AAD) for FY 2007-08 and FY 2008-09 as per the details given in the table below:

*Table: Depreciation and AAD approved by MERC for FY 2007-08 for Parli No. 6*

Parameter	Amount (Rs. Cr.)	Parameter	Amount (Rs. Cr.)
Loan Repayment	22.6	Depreciation	17.04
		Advance against depreciation (AAD)	0
<b>Total</b>	<b>22.6</b>		<b>17.04</b>

*Table: Depreciation and AAD approved by MERC for FY 2008-09 for Parli No. 6*

Parameter	Amount for Parli Unit 6 (Rs Cr.)	Parameter	Amount for Parli Unit 6 (Rs Cr.)
Loan Repayment	92.71	Depreciation	40.89
		Advance against depreciation (AAD)	0.00
<b>Total</b>	<b>92.71</b>		<b>40.89</b>

MSPGCL submitted that the gross fixed asset for Parli Unit No. 6 as submitted by MSPGCL is Rs. 1,213.14 Crore under Scenario-2.

MSPGCL submitted that the Commission, in its Order for Paras Unit 3 dated October 21, 2009, had approved depreciation along with advance against depreciation (AAD) for FY 2008-09 as per the details given in the table below:

*Table: Depreciation and AAD approved by MERC for FY 2008-09 for Paras Unit 3*



Parameter	Amount for Paras Unit 3 (Rs Cr.)	Parameter	Amount for Paras Unit 3 (Rs Cr.)
Loan Repayment	94.53	Depreciation	43.29
		Advance against depreciation (AAD)	0
<b>Total</b>	<b>94.53</b>		<b>43.29</b>

MSPGCL submitted that the gross fixed assets for Paras Unit 3 are Rs 1175.22 Crore under Scenario-2.

MSPGCL further submitted that it has classified its assets as per the depreciation schedule in the MERC Tariff Regulations, 2005 and has applied the rates prescribed therein to work out the depreciation.

The Commission has calculated asset class wise depreciation taking the rates applicable under the MERC Tariff Regulations, 2005, Capital Cost as approved by the Commission in its MYT Order and additional capitalisation as approved by the Commission in this Order. Accordingly, the total depreciation as approved by the Commission is as shown in the table below.

*Table: Depreciation and AAD approved by MERC for FY 2008-09 for Paras Unit 3*

Name of the Plant	FY 2007-08			FY 2008-09		
	Approved in MYT Order	MSPGCL	True Up	Approved in MYT Order	MSPGCL	True Up
Parli Unit 6	17.04	18.01	17.15	40.89	43.25	41.19
Paras Unit 3	-	-	-	43.29	41.78	42.92

### 2.5.1. Advance Against Depreciation (AAD)

MSPGCL submitted that Regulation 32.3 of MERC Tariff Regulations stipulates as follows:

*“Where, in respect of a generating station, the actual amount of loan repayment in any financial year exceeds the amount of depreciation allowable under Regulation 34.4.1, the Generating Company shall be allowed an advance against depreciation for the difference between the actual amount of such repayment and the allowable depreciation in respect of such generating station, for such financial year:*



*Provided also that such advance against depreciation shall be restricted to 1/10th of the principal amount of loans minus the amount of depreciation”*

Under Scenario-2, MSPGCL had not considered AAD as the Commission has disallowed it in the MYT Order for Paras Unit 3 dated December 15, 2009 and MYT Order for Parli Unit 6 dated October 21, 2009. MSPGCL further submitted that it has clearly identified loan portfolio used for funding the project and considering that the amount of loan repayment for such loans is higher than the allowable depreciation, MSPGCL should be entitled to AAD. The same is the subject matter of Appeal No. 99 and 72 of 2010 for Paras Unit 3 and Parli Unit 6, respectively, with the ATE.

As the matter is sub-judice, the Commission has continued with the approach adopted by it in MYT Orders and has therefore, not allowed AAD for both the Units.

## **2.6. RETURN ON EQUITY**

MSPGCL submitted that the Commission, in its Order dated October 21, 2009 for Parli Unit 6 and Order dated December 15, 2009 for Paras Unit 3, had considered return on equity of 14% per annum on the equity portion as approved in the Tariff Order for FY 2008-09. For FY 2007-08, the Commission had considered the return on equity on pro-rata basis for the remaining part of the year post the CoD of Parli Unit 6. For Parli Unit 6, the Commission had allowed Rs 18.37 Crore in FY 2007-08 and Rs 44.08 Crore in FY 2008-09 as return on equity. For Paras Unit 3, the Commission had allowed Rs 40.90 Crore in FY 2008-09 as return on equity.

MSPGCL submitted that it had computed return on equity on the equity base in accordance with principles outlined in the MERC Tariff Regulations. For Parli Unit 6, assets to the tune of Rs 0.04 Crore have been withdrawn in the period Nov-07 to Mar-08 and accordingly GFA and equity base have been reduced by such amount.

The rate of return has been considered at 14% as per the MERC Tariff Regulations, 2005, and MSPGCL has considered return on equity on opening equity for FY 2008-09. MSPGCL submitted that it has claimed return on equity on the opening balance of equity for the purpose of this Petition but it would like to reiterate the issue of allowance of return on equity on the additional capitalization during the year. MSPGCL pleaded that half year pro-rata return should be allowed to MSPGCL on the equity component of the additional capitalization during the year.



MSPGCL submitted that MERC Regulations, 2005 explicitly allows return on equity on the additional capitalization during the year to distribution and transmission utilities. MSPGCL further submitted that the Commission had disallowed the Petitioner's contention of return on equity on the additional capitalization during the year in the Order dated October 21, 2009. MSPGCL submitted that it does not find any reason to believe why such return on equity on additional capitalization is being denied to it while it is being allowed to transmission and distribution utilities. MSPGCL reiterated its contention that return on equity should be allowed on the additional capitalization during the year to MSPGCL as well.

**Parli Unit 6:** MSPGCL has claimed return on opening equity of Rs. 19.27 Crore for FY 2007-08 and Rs. 46.28 Crore for FY 2008-09 under Scenario-2 as per the table below:

*Table: Calculation of Return on Equity for FY 2008-09 (Rs Crore)*

Particulars	FY 2007-08	FY 2008-09
	Scenario-2	Scenario-2
Opening Balance of Equity at the commencement of Financial Year (A)	330.59	330.55
Equity component of capitalised assets (B)	-0.04	139.71
Closing Balance of Equity (B)	330.55	470.27
<b>Return on Equity [A*14%]</b>	<b>19.27</b>	<b>46.28</b>

**Paras Unit 3:** MSPGCL's claim for return on opening equity under Scenario-2 for FY 2008-09 is as per the table below:

*Table: Return on Equity for FY 2008-09 (Rs Crore)*

Particulars	FY 2008-09
	Scenario-2
Opening Equity as on 01.04.2008 (A)	284.40
Addition during the year	115.39
Closing Equity	<b>399.80</b>
<b><u>Return Computation</u></b>	
Return on Equity at the beginning of the year (A*14%)	39.82
<b>Total Return on Equity</b>	<b>39.82</b>



The Commission is of the view that MSPGCL has funded the entire additional capitalisation after COD for both the Units through internal accruals (equity). The Commission, in its MYT Order, has approved debt - equity ratio as 72.75:27.25 and 75.8:24.2 for Parli Unit 6 and Paras Unit 3, respectively.

Regulation 31.2 of MERC Tariff Regulations stipulates as follow:

"31.2.1 Any generating station commissioned on or after the date of notification of these Regulations shall be assumed to be financed at a normative debt:equity ratio of 70:30."

The Commission holds that considering the equity component as submitted by MSPGCL in the subsequent years after COD for both the plants, the total equity exceeds 30% of the approved capital cost. The Commission has therefore, restricted the equity component to 30% of the capital cost and the amount exceeding 30% has been considered as normative debt.

Moreover, the Commission while computing the return on equity for FY 2007-08 and FY 2008-09, has considered return on opening equity only, in accordance with MERC Tariff Regulations, 2005. The summary of Return on Equity as proposed by MSPGCL and as approved by the Commission is given in the table below;

**Table: Return on Equity approved for Parli Unit 6 (Rs Crore)**

Particulars	FY 2007-08			FY 2008-09		
	Approved in MYT	MSPGCL	Approved	Approved in MYT	MSPGCL	Approved
Opening Equity	314.83	330.59	314.83	314.83	330.55	314.79
Equity portion of capital expenditure	-	-0.04	-0.04	-	139.72	73.72
Regulatory Equity at the end of the year	314.83	330.55	314.79	314.83	470.27	388.51
Return on Equity @ 14%	18.37	19.27	18.36	44.08	46.28	44.07
Return on Equity added during the year	-	-	-	-	-	-
<b>Total Return on Equity</b>	<b>18.37</b>	<b>19.27</b>	<b>18.36</b>	<b>44.08</b>	<b>46.28</b>	<b>44.07</b>

**Table: Return on Equity approved for Paras Unit 3 (Rs Crore)**

Particulars	FY 2008-09
-------------	------------



	Approved in MYT	MSPGCL	Approved
Opening Equity	292.15	284.40	292.15
Equity portion of capital expenditure	-	115.39	104.71
Regulatory Equity at the end of the year	292.15	399.80	396.86
Return on Equity @14%	40.9	39.82	40.90
Return on Equity added during the year	-	-	-
<b>Total Return on Equity</b>	<b>40.90</b>	<b>39.82</b>	<b>40.90</b>

## 2.7. INCOME TAX

MSPGCL submitted that it has claimed the overall corporate income tax paid by it in the APR Petition for FY 2009-10 for its existing stations other than Parli Unit 6 and Paras Unit-3. No income tax has been claimed under this Petition.

## 2.8. INTEREST ON WORKING CAPITAL

MSPGCL submitted that while computing the true-up for interest expenses on account of long-term loans, MSPGCL has excluded the interest component on account of short-term working capital loans. MSPGCL submitted that as per the provisions of MERC Tariff Regulations, interest on working capital has been computed based on the norms and the actual audited elements of ARR like O&M expenses, maintenance spares, receivables, fuel expenses.

Further, MSPGCL submitted that the MERC Tariff Regulations stipulate that the rate of interest on working capital shall be equal to the short-term Prime Lending Rate of State Bank of India. Accordingly, the normative interest rate of 12.25% has been considered for determination of Interest on Working Capital as taken by the Commission at the time of determination of tariff for FY 2007-08 and FY 2008-09.

Accordingly, MSPGCL submitted that the true up amount of interest on working capital for Parli Unit -6 for FY 2007-08 and FY 2008-09 is Rs. 7.11 Crore and Rs. 12.24 Crore respectively. Similarly for Paras Unit-3 interest on working capital for FY 2008-09 under Scenario-2 is Rs. 13.45 Crore.



**Table: Interest on Working Capital for Parli Unit 6 for FY 2007-08 and FY 2008-09 (Rs Crore)**

Particulars	FY 2007-08			FY 2008-09		
	Approved	Actuals	True-up	Approved	Actuals	True-up
	(A)	(B)	(B) - (A)	(A)	(B)	(B) - (A)
Parli Unit 6	5.27	7.11	1.84	14.58	12.24	-2.34

MSPGCL submitted that there had been a delay in the issuance of tariff Order for the two Units and on account of disallowance of capital cost and return on equity; the Company has to bear all liabilities towards fuel, loan repayment and interest expenses from its internal accruals along with borrowings of working capital. MSPGCL, therefore, requested the Commission to consider the aforementioned increase as uncontrollable expenses. Accordingly, MSPGCL requested the Commission for truing up of the variation in Interest on Working Capital allowed in the Order vis-à-vis the normative interest on working capital based on actual audited ARR elements.

The Commission, in the data gaps, queried MSPGCL regarding the fact that though there is substantial reduction in fuel cost of Parli Unit 6, the interest on working capital is nearly the same as that approved by the Commission, and for Paras Unit 3 it is substantially higher at Rs. 14.95 Crore as compared to Rs. 8.67 Crore approved for FY 2008-09.

MSPGCL, in its reply, submitted that in case of Parli Unit 6, for the corresponding period of Nov-March for FY 2007-08, the Commission has approved the Interest in Working Capital (IoWC) as Rs. 5.27 Crore; however, the same based on tariff norms considering actual capital cost under scenario 1 works out to Rs. 7.7 Crore. Further, in case of Paras Unit 3, the IoWC approved by the Commission is Rs 8.67 Crore, whereas the IoWC based on norms considering actual capital cost under scenario 1 works out to Rs 14.95 Crore.

MSPGCL further submitted that the reason for deviation between the approved IoWC and the IoWc considered for true-up purposes is because of the fact that MSPGCL has considered the actual capital cost and actual debt and equity employed while computing IoWC.

The Commission does not agree with the methodology adopted by MSPGCL for computing Working Capital and Interest on Working Capital because the Commission cannot allow interest on working capital which also includes portion of expenses which have been disallowed by the Commission. Therefore, the Commission has calculated



IoWC in accordance with the MERC Tariff Regulations, 2005, and considering the approved capital cost for both the Units. The Commission has accordingly approved IoWC for the two Units as shown in the table below.

**Table: Interest on Working Capital allowed for Parli Unit 6 for FY 2007-08 and FY 2008-09 (Rs Crore)**

Name of the Plant	FY 2007-08			FY 2008-09		
	Approved in MYT Order	MSPGCL	Approved after truing up	Approved in MYT Order	MSPGCL	Approved after truing up
Parli Unit 6	5.27	7.11	6.42	14.58	12.24	10.23
Paras Unit 3	-	-	-	8.67	12.55	11.05

## 2.9. PRIOR PERIOD ITEMS/MIGRATION ITEMS OF FY 2007-08

MSPGCL submitted that in the APR Petition for FY 2008-09 for existing stations, the Petitioner had sought Rs 192.61 Crore under prior period items. This was a provision for earned leave encashment, which MSPGCL had to provide in its books of accounts in compliance with the change in the accounting policy (AS-15) for accounting for leave benefits for compensated absences on accrual basis as against accounting for the same on cash basis as was being done in earlier years. In the APR Order for FY 2008-09 dated August 17/18, 2009, the Commission had allowed Rs 177.37 Crore for existing stations in the true-up for FY 2007-08. MSPGCL has claimed the remaining un-recovered portion of Rs 15.24 equally between Paras Unit-3 in FY 2008-09 and Parli Unit-6 in the true-up for FY 2007-08. Thus, Rs 7.62 Crore is claimed in the true-up of Paras Unit-3 in FY 2008-09.

The Commission accepts the claim made by MSPGCL as the Commission has already approved these expenses for existing stations while carrying out the truing up for existing stations and therefore allows the prior period expenses for both the Units.

## 2.10. REVENUE SIDE TRUE-UP COMPUTATION

### 2.10.1. Revenue Side True-Up Computation for Parli Unit 6

MSPGCL submitted that the revenue (as per provisional billing) earned by Parli Unit 6 in FY 2007-08 as per accounts was Rs 152.286 Crore. Further, as per Order dated October



21, 2009, MSPGCL had accounted for the final billing for FY 2007-08 and accordingly raised a final bill of Rs 29.154 Crore on October 30, 2009. This bill for the difference between provisional and final tariff though accounted for in the accounts for FY 2008-09 pertains to FY 2007-08. Thus, the total revenue for FY 2007-08 is Rs 181.44 Crore and has been considered for the revenue-side true-up computations for FY 2007-08.

For FY 2008-09, MSPGCL had initially billed (provisional) MSEDCL for Rs 317.56 Crore. Further, as per Order dated October 21, 2009, the Petitioner raised final bill for Rs 166.42 Crore on October 30, 2009 for the difference between the provisional and final tariff and accounted it in the accounts for FY 2008-09. Thus, the total revenue for FY 2008-09 is Rs 483.99 Crore, which has been considered for the revenue-side true-up computations for FY 2008-09.

MSSPGCL submitted that it had earned non-tariff income of Rs 1.80 Crore in FY 2008-09. The summary of revenue earned by MSPGCL has been presented in the table below:

**Table: Revenue earned by Parli Unit 6 in FY 2007-08 & 2008-09 (Rs Crore)**

Item	FY 2007-08	FY 2008-09
Revenue from Sale of Power (including FAC)	181.44	483.99
Incentive	0	0
Revenue from Sale of Power to Colonies	0	0
Non Tariff Income	0	1.8
<b>Total Revenue as per Accounts</b>	<b>181.44</b>	<b>485.79</b>

MSPGCL submitted a comparison of approved revenue vis-à-vis the actual revenue earned during the year in the table below:

**Table: Revenue-side True-up for Parli Unit 6 for FY 2007-08 & FY 2008-09 (Rs Crore)**

Particulars	FY 2007-08			FY 2008-09		
	Approved	Actuals	True-up	Approved	Actuals	True-up
	(A)	(B)	(B) - (A)	(A)	(B)	(B) - (A)
Revenue	181.44	181.44	0.00	483.99	483.99	0.00
NTI	0.00	0.00	0.00	0.00	1.80	1.80



Particulars	FY 2007-08			FY 2008-09		
	Approved	Actuals	True-up	Approved	Actuals	True-up
	(A)	(B)	(B) - (A)	(A)	(B)	(B) - (A)
<b>Total</b>	<b>181.44</b>	<b>181.44</b>	<b>0.00</b>	<b>483.99</b>	<b>485.79</b>	<b>1.80</b>

MSPGCL submitted that the Commission, in its Order dated October 21, 2009, had allowed MSPGCL to recover the under-recovered fuel cost of trial run period of Rs 66.05 Crore (Cost of fuel Rs 125.92 Crore – Revenue from infirm power Rs 59.86 Crore) from MSEDCL in six equal monthly instalments. MSPGCL submitted that there has been an inadvertent error in the MYT Petition in submitting the net cost of trial run expenses and the un-recovered trial run expenses are Rs. 64.28 Crore against the approved Rs. 66.05 Crore. Hence, MSPGCL considered the variation of Rs. 1.78 Crore to be trued-up in FY 2008-09.

MSPGCL, for its Parli Unit 6, submitted that the revenue true-up is nil in FY 2007-08 and is Rs. 3.58 Crore (Rs 1.80 Crore + Rs. 1.78 Crore) in FY 2008-09.

The Commission has considered actual revenue submitted by MSPGCL for FY 2007-08 and FY 2008-09 while carrying out truing up of expenses and revenue.

### 2.10.2. Revenue Side True-Up Computation for Paras Unit 3

For FY 2008-09, the revenue earned from sale of energy and non-tariff income by Paras Unit-3 as per the books of accounts is provided in the table below:

**Table: Revenue earned by Paras Unit 3 in FY 2008-09 (Rs Crore)**

Item	FY 2008-09
Revenue from Sale of Power (excluding FAC)	381.53
Revenue from FAC	12.44
Incentive	0.00
Revenue from Sale of Power to Colonies	0.00
Non Tariff Income	0.47
<b>Total Revenue as per Accounts</b>	<b>394.45</b>
Withdrawal of Excess Provision for Revenue	47.92



Item	FY 2008-09
Revenue for the purpose of True-up for FY 2008-09	346.52

MSPGCL submitted that it had provided Rs 129.05 Crore for unrecovered energy bill for the period of April-08 to Mar-09 in the audited accounts for FY 2008-09. However, based on the Commission's Order dated December 15, 2009, the actual revision in billing materialized to Rs 81.128 Crore only. Accordingly, the MSPGCL passed a rectification JV of Rs 47.92 Crore on December 31, 2009 in its accounts. MSPGCL submitted that such reversal of provision of revenue has to be reduced from the revenue as per audited accounts for FY 2008-09 as the JV pertains to FY 2008-09 specifically.

The Petitioner submitted a comparison of approved revenue vis-à-vis the actual revenue earned during the year in the table below:

*Table: Revenue-side True-up for Paras Unit 3 for FY 2008-09 (Rs Crore)*

Particulars	FY 2008-09		
	Approved in MYT	Actuals	True-up
	(A)	(B)	(B) - (A)
Revenue	346.05	346.05	0.00
NTI	0.00	0.47	0.47
<b>Total</b>	<b>346.05</b>	<b>346.52</b>	<b>0.47</b>

The Commission has considered actual revenue submitted by MSPGCL for FY 2008-09 while carrying out the truing up of expenses and revenue.

## **2.11. REDUCTION IN ANNUAL FIXED CHARGES ON ACCOUNT OF REDUCTION IN AVAILABILITY**

The actual availability of Parli Unit 6 during FY 2007-08 and FY 2008-09 was lower than that approved by the Commission in its MYT Orders. MSPGCL, in its MYT Petition, submitted the target availability of Parli Unit 6 as 64.85% and 80% for FY 2007-08 and FY 2008-09, respectively. With regards to lower availability of Parli Unit 6 for FY 2007-08, the Commission in its MYT Order in Case 26 of 2008 has stated as follows:

*“It may be observed that MSPGCL, within 6 months of synchronization of the Unit, has declared the “commercial operation of Parli Unit No. 6” on November 1,*



2007, even though sustained performance of the Unit for 28 days with 72 hours at full load, was not established and MSPGCL had full knowledge that the generating Unit was not in a position to perform on sustained basis. In accordance with standard industry practice, the Performance Guarantee (PG) test has to be conducted before declaring COD. However, MSPGCL declared COD before conducting the PG test, and the PG test was conducted well after the COD. There was no compulsion on MSPGCL to declare commercial operation of the Unit prior to its stabilization. Given the above background, the Commission is of the view that relaxation of target availability norms for the generating station to the level of actual availability for the purpose of tariff is not justified. The risk of such low level of operation of the generating station has to be borne by the generator. Hence, the target availability for the generating station for the period from FY 2007-08 to FY 2009-10 has been considered as 80 % in accordance with the norms stipulated in the MERC (Terms and Conditions of Tariff) Regulations, 2005”

For Paras Unit 3, the Commission in its MYT Order, has given similar reasons for not allowing lower availability than that stipulated in the Tariff Regulations 2005.

Further, the Commission in its Order in Case No 102 of 2009 for existing stations of MSPGCL, has reduced AFC based on the actual availability and target availability considering recovery of full AFC at 80% availability, in accordance with MERC Tariff Regulations, 2005. Accordingly, the Commission in this Order has reduced the recovery of Annual Fixed Charges for FY 2007-08 and FY 2008-09 on pro-rata basis. The summary of AFC computations and AFC disallowed by the Commission is shown in the table below.

**Table: Reduction in Annual Fixed Charges of Parli Unit 6 for FY 2007-08 and FY 2008-09**

Particulars	AFC approved in MYT Order	AFC after Truing up	Actual Availability	Normative Availability	Reduced AFC	AFC to be disallowed
FY 2007-08	92.03	101.91	65.40%	80.00%	83.31	18.60
FY 2008-09	216.85	220.93	54.61%	80.00%	150.80	70.13
<b>Total</b>	<b>308.88</b>	<b>322.83</b>			<b>234.10</b>	<b>88.73</b>

**Table: Reduction in Annual Fixed Charges of Paras Unit 3 for FY 2008-09**



Particulars	AFC approved in MYT Order	AFC after Truing up	Actual Availability	Normative Availability	Reduced AFC	AFC to be disallowed
<b>FY 2008-09</b>	223.91	233.83	44.47%	80.00%	129.98	103.85

## 2.12. TRUING UP SUMMARY FOR PARLI UNIT 6

### 2.12.1. Truing-Up Summary for FY 2007-08 (Nov. 2007- Mar. 2008)

The summary of truing up of expenses as submitted by MSPGCL is given in the following Table:

*Table: True Up Summary for Parli Unit 6 for FY 2007-08 (Nov-07 to Mar-08) (Rs Crore)*

Particulars	MERC Approved (A)	Scenario-2	
		Actual as per Audited Accounts/ Tariff Norms for 2007-08 (B)	True –up Amount (A-B)
Cost of Generation	89.41	110.30	-20.89
<i>Fuel Cost</i>	89.41	106.41	-17.00
<i>Other Variable Charges</i>		3.89	-3.89
O & M Expenses	12.35	12.35	-
Depreciation including AAD	17.04	18.01	-0.97
Interest & Finance Charges on Long Term Loans	39.00	41.56	-2.56
<i>Interest Charges</i>		34.56	
<i>Finance Charges</i>		7.00	
Interest on working capital	5.27	7.11	-1.84
Return on Equity	18.37	19.27	-0.90
Prior Period/Migration		7.62	-7.62
<b>Total</b>	<b>181.44</b>	<b>216.23</b>	<b>-34.79</b>

### 2.12.2. Truing-Up Summary for FY 2008-09

The summary of truing up of expenses as submitted by MSPGCL is given in following Table:

*Table: True Up Summary for Parli Unit 6 for FY 2008-09 (Rs Crore)*

Particulars	MERC	Scenario-2
-------------	------	------------



	Approved (A)	Actual as per Audited Accounts/ Tariff Norms for 2008-09 (B)	True –up Amount
			(A-B)
Cost of Generation	267.13	194.09	73.04
<i>Fuel Cost</i>	267.13	183.54	83.59
<i>Other Variable Charges</i>		10.55	-10.55
O & M Expenses	31.24	33.52	-2.28
Depreciation including AAD	40.89	43.25	-2.36
Interest & Finance Charges on Long Term Loans	86.07	90.75	-4.68
<i>Interest Charges</i>		75.03	
<i>Finance Charges</i>		15.71	
Interest on working capital	14.58	12.24	2.34
Return on Equity	44.08	46.28	-2.20
<b>Total</b>	<b>483.99</b>	<b>420.13</b>	<b>63.86</b>

The Commission, in accordance with the provisions of MERC Tariff Regulations has allowed the expenses for FY 2007-08 and FY 2008-09 based on revised performance parameters approved in this Order and has carried out the sharing of efficiency gains and losses under following heads:

- Sharing of losses in fuel expenses, as actual expenses are higher than the normative expenses
- Sharing of gains in O&M expenses, as actual expenses are lower than the normative expenses
- Sharing on account of Interest on Working Capital has not been carried out as MSPGCL has not submitted actual interest on working capital and hence the Commission has allowed the Interest on Working Capital on normative basis.

In accordance with the MERC Tariff Regulations, the Commission has shared 1/3rd of the gains and losses with the Distribution Licensees, while 2/3rd of gains are allowed to be retained by MSPGCL and 2/3rd of losses are to be borne by MSPGCL. The summary of



truing up for FY 2007-08 and FY 2008-09 considering sharing of gains and losses is given in following Table:

**Table: Summary of Truing up of Parli Unit 6 for FY 2007-08 (Rs Crore)**

Particulars	Approved	Actual	Allowed After Truing up	Deviation	Efficiency Gain/Loss shared with Distribution Licensees	Net Entitlement
Cost of Generation	89.41	110.28	92.55	-17.74	-5.91	98.46
O&M Expenses	12.35	8.12	12.35	4.23	1.41	10.94
Depreciation including AAD	17.04	18.01	17.15			17.15
Interest & Finance Charges on Long Term loans	39.00	41.56	40.01			40.01
Interest on working capital	5.27	7.11	6.42			6.42
Income Tax	0.00	0				
Prior period true-up incl. migration entries		7.62	7.62			7.62
Return on Equity	18.37	19.27	18.36			18.36
<b>Total ARR</b>	<b>181.44</b>	<b>211.98</b>	<b>194.45</b>			<b>198.95</b>
<b>Reduced AFC on account of lower availability</b>						<b>18.60</b>
Net Entitlement						180.35
<b>Total Revenue</b>	<b>181.44</b>	<b>181.44</b>	<b>181.44</b>			<b>181.44</b>
<b>Net Gap/(surplus)</b>						<b>-1.09</b>
<b>Net Truing Up FY 2007-08</b>						-1.09

The Commission, therefore, approves net surplus of Rs 1.09 Crore for Parli Unit 6 for FY 2007-08 as against Rs 34.79 Crore deficit claimed by MSPGCL under Scenario 2.

**Table: Summary of Truing up of Parli Unit 6 for FY 2008-09 (Rs Crore)**



Particulars	Approved	Actual	Allowed After Truing up	Deviation	Efficiency Gain/Loss shared with Distribution Licensees	Net Entitlement
Cost of Generation	267.13	194.09	144.14	-49.95	-16.65	160.79
O&M Expenses	31.24	30.35	33.52	3.17	1.06	32.46
Depreciation including AAD	40.89	43.25	41.19			41.19
Interest & Finance Charges on Long Term loans	86.07	90.75	93.72			93.72
Interest on working capital	14.58	12.24	10.23	-2.01	-0.67	10.23
Income Tax	0.00	0.00				
Return on Equity	44.08	46.28	44.07			44.07
<b>Total ARR</b>	<b>483.99</b>	<b>416.96</b>	<b>366.87</b>			<b>382.46</b>
<b>Reduced AFC on account of lower availability</b>						<b>70.13</b>
Net Entitlement						312.33
<b>Total Revenue</b>	<b>483.99</b>	<b>421.51</b>	<b>421.51</b>			<b>421.51</b>
<b>True Up FY 2007-08</b>						<b>-1.09</b>
<b>Net Gap/(surplus)</b>						<b>-110.26</b>
<b>Net Truing up Impact for FY 2008-09</b>						<b>-110.26</b>

The Commission, therefore, approves net surplus of Rs 109.18 Crore for Parli Unit 6 for FY 2008-09, as against the surplus of Rs 67.44 Crore claimed by MSPGCL under Scenario 2. The main reasons for variation in truing up claimed by MSPGCL and as approved by the Commission are as follows:

- Actual Fuel Expenses are substantially higher than the fuel expenses computed based on normative performance parameters due to very high actual Station Heat Rate and Secondary Fuel Oil Consumption
- Reduction in AFC on pro-rata basis due to actual availability being much lower than the normative availability of 80%.



## 2.13. TRUING UP SUMMARY FOR PARAS UNIT 3

### 2.13.1. Truing-Up Summary for FY 2008-09

The summary of truing up of expenses as submitted by MSPGCL is given in the following Table:

*Table: True Up Summary for Paras Unit 3 for FY 2008-09 (Rs Crore)*

Particulars	MERC Approved (A)	Scenario-2	
		Actual as per Audited Accounts/ Tariff Norms for 2008-09 (B)	True –up Amount
			(A-B)
Cost of Generation	122.14	200.62	(78.48)
<i>Fuel Cost</i>	<i>122.14</i>	<i>194.81</i>	<i>(72.67)</i>
<i>Other Variable Charges</i>	<i>-</i>	<i>5.81</i>	<i>(5.81)</i>
O & M Expenses	31.24	33.52	(2.28)
Depreciation including AAD	43.29	41.78	1.51
Interest & Finance Charges on Long Term Loans	99.81	94.64	5.17
<i>Interest Charges</i>		<i>94.64</i>	
<i>Finance Charges</i>		<i>0.00</i>	
Interest on working capital	8.67	12.55	(3.88)
Return on Equity	40.90	39.82	1.08
Prior Period/Migration		7.62	(7.62)
<b>Total</b>	<b>346.05</b>	<b>430.54</b>	<b>(84.49)</b>

The Commission, in accordance with the provisions of MERC Tariff Regulations, 2005, has allowed the expenses for FY 2007-08 and FY 2008-09 based on revised performance parameters approved in this Order and has carried out the sharing of efficiency gains and losses.



**Table: Summary of Truing up of Paras Unit 3 for FY 2008-09 (Rs Crore)**

Particulars	Approved	Actual	Allowed After Truing up	Deviation	Efficiency Gain/Loss shared with Distribution Licensees	Net Entitlement
Cost of Generation	122.14	200.62	121.86	-78.76	-26.25	148.11
Lease Rentals						
O&M Expenses	31.24	19.15	33.52	14.37	4.79	28.73
Depreciation including AAD	43.29	41.78	42.92			42.92
Interest & Finance Charges on Long Term loans	99.81	94.64	97.82			97.82
Interest on working capital	8.67	12.55	11.05			11.05
Prior period true-up incl. migration entries		7.62	7.62			7.62
Return on Equity	40.90	39.82	40.90			40.90
<b>Total ARR</b>	<b>346.05</b>	<b>416.17</b>	<b>355.69</b>			<b>377.15</b>
<b>Reduced AFC on account of lower availability</b>						<b>103.85</b>
<b>Net Entitlement</b>						<b>273.30</b>
Total Revenue						346.52
<b>Net Gap/(surplus)</b>						<b>-73.22</b>
<b>Net Truing up Impact for FY 2008-09</b>						<b>-73.22</b>

The Commission, therefore, approves net surplus of Rs 73.22 Crore for Paras Unit 3 for FY 2008-09 as against the deficit of Rs 84.02 Crore claimed by MSPGCL under Scenario 2. The main reasons for variation in truing up claimed by MSPGCL and as approved by the Commission are as follows:

- Actual Fuel Expenses are substantially higher than the fuel expenses computed based on normative performance parameters due to very high actual Station Heat Rate and Secondary Fuel Oil Consumption
- Reduction in AFC on pro-rata basis due to actual availability being much lower than the normative availability of 80%.





### **3. PERFORMANCE PARAMETERS**

Regulation 16.1 of the MERC Tariff Regulations, 2005, stipulates,

*“The Commission may stipulate a trajectory, which may cover one or more control periods, for certain variables having regard to the reorganization, restructuring and development of the electricity industry in the State. Provided that the variables for which a trajectory may be stipulated include, but are not limited to, generating station availability, station heat rate, transmission losses, distribution losses and collection efficiency.”*

The Commission, in its MYT Orders for Parli Unit 6 and Paras Unit 3 dated October 21, 2009 in Case No. 26 of 2008 and December 15, 2009 in Case No. 95 of 2008, respectively, had approved the following performance parameters:

- Availability
- Heat Rate
- Auxiliary Consumption
- Transit Loss
- Secondary Fuel Oil Consumption.

#### **3.1. STATION WISE PERFORMANCE PARAMETERS AND TARIFF**

The Commission, in its MYT Orders for the both the Units, had approved the performance of individual generating Units, as under.

##### **3.1.1. Availability and PLF of Parli Unit 6 and Paras Unit 3**

The Commission had approved the availability of 80% for Parli Unit 6 and Paras Unit 3 for the Control Period, considering MSPGCL's submissions and in accordance with MERC Tariff Regulations, 2005.

#### **Parli Unit 6**

MSPGCL, in its Petition for Parli Unit 6, has submitted that the availability during FY 2009-10 as per the MERC Tariff Regulations, 2005, has been 67.49%, because of the planned outages of 60 days for attending the problem of high HP turbine shaft vibrations. MSPGCL has planned Annual Overhaul (AOH) of the Unit for 27 days in FY 2010-11 and has estimated plant availability at 80%.



### Paras Unit 3

MSPGCL, in its Petition for Paras Unit 3, has submitted that the availability during FY 2009-10, as per the MERC Tariff Regulations, 2005, has been 69.89%. MSPGCL further submitted that the Unit availability was low due to non availability of stand by coal mill which resulted in choking of heater basket. This further led to furnace draft variation and resulted into boiler structure vibration. To control the vibrations, the Unit was partially loaded which resulted into deviation in performance parameters. MSPGCL further submitted that due to high demand and peak load shortage it could not take a shutdown for rectification of the said problem. MSPGCL further submitted that problems related to other equipment like Primary Air Fan, ID Fan, Coal Mill, Various Tripping also contributed to lower availability of the Unit. MSPGCL further submitted that it has planned AOH of the Unit for 25 days in FY 2010-11 and has estimated plant availability of 80%.

#### Commission's Ruling on Availability and PLF

The Commission approved the Availability in its MYT Order for each year of the Control Period. For both the Units, MSPGCL's actual availability during FY 2009-10 has been lower than the Commission approved availability of 80%. The Commission, in its MYT Order, has stated that MSPGCL has not followed standard industry practices and has declared Commercial Operation Date (CoD) of both the Units within 6 months from the date of synchronization without conducting necessary checks and Performance and Guarantee tests. The Commission further stated that MSPGCL actions do not conform to "good engineering practice" and therefore, the consequences of such low level of operation of the generating Unit cannot be passed on to consumers, as the consumers have already suffered high load shedding due to lower generation from these Units. Therefore, the loss has to be borne by the generator.

The station-wise availability and PLF as approved by the Commission in its MYT Orders, projected by MSPGCL in the APR Petition, and approved by the Commission for FY 2009-10 and FY 2010-11 is given in the following Table:

*Table: Availability for Parli Unit 6 and Paras Unit 3*

Particulars	MYT Order	FY 2009-10		FY 2010-11	
		Revised Estimate	Approved	Revised Estimate	Approved



Particulars	MYT Order	FY 2009-10		FY 2010-11	
		Revised Estimate	Approved	Revised Estimate	Approved
<b>Parli Unit 6</b>	80.00%	67.49%	80.00%	80.00%	80.00%
<b>Paras Unit 3</b>	80.00%	69.89%	80.00%	80.00%	80.00%

*Table: PLF for Parli Unit 6 and Paras Unit 3*

Particulars	MYT Order	FY 2009-10		FY 2010-11	
		Revised Estimate	Approved	Revised Estimate	Approved
<b>Parli Unit 6</b>	80.00%	67.49%	80.00%	80.00%	80.00%
<b>Paras Unit 3</b>	80.00%	69.89%	80.00%	80.00%	80.00%

For FY 2009-10 and FY 2010-11, the Commission will review the actual availability for each Unit at the end of the year at the time of final truing up, and in case the availability achieved is lower than that approved in accordance with the MERC Tariff Regulations, the Commission will examine the reasons for such deviation and may proportionately deduct the recovery of Annual Fixed Charges during the truing up exercise based on actual performance.

### **3.1.2. Auxiliary Consumption**

MSPGCL, in its Petition, submitted that the auxiliary consumption for the two generating Units for FY 2009-10 is based on the actual auxiliary consumption for the first six months and projected performance for the remaining six months of FY 2009-10. MSPGCL made the following submissions with respect to the revised projections of auxiliary consumption during FY 2009-10 and FY 2010-11.

#### **Parli Unit 6**

MSPGCL, in its Petition for Parli Unit 6, submitted that the Auxiliary Consumption for FY 2009-10 for Parli Unit-6 had been 10.94%, and the increase in auxiliary consumption was on account of low PLF of the Unit on account of technical issues. MSPGCL projected auxiliary consumption of 9.00% for FY 2010-11.

#### **Paras Unit 3**

MSPGCL, in its Petition for Paras Unit 3, submitted that the Auxiliary Consumption for FY-2009-10 for Paras Unit-3 had been 10.84%, , and the increase in auxiliary



consumption was on account of low PLF of the Unit on account of technical issues. MSPGCL projected auxiliary consumption of 9.00% for FY 2010-11.

The Commission is of the view that since, the two Units are new Units, the Units should operate at full efficiency and therefore, the Commission finds no reason to allow a higher auxiliary consumption for Parli Unit 6 and Paras Unit 3, as compared to the auxiliary consumption norm specified in the MERC Tariff Regulations, 2005.

The summary of auxiliary consumption as approved in MYT Order, proposed by MSPGCL in the current Petition, and values approved by the Commission for FY 2009-10 and FY 2010-11 are given in the following Table:

**Table: Auxiliary Consumption for FY 2009-10 & FY 2010-11**

Station	2009-10			2010-11		
	MYT Order	Revised Estimate	Approved	MYT	Revised Estimate	Approved
<b>Parli Unit 6</b>	9.00%	10.94%	9.00%	9.00%	9.00%	9.00%
<b>Paras Unit 3</b>	9.00%	10.84%	9.00%	9.00%	9.00%	9.00%

### 3.1.3. Heat Rate

MSPGCL submitted that the Station Heat Rate values for FY 2009-10 are based on actual figures for first six months and estimated figures for last six months. Further, MSPGCL has projected Station Heat Rate for FY 2010-11 for both the Units as detailed below:

#### **Parli Unit 6**

MSPGCL, in its Petition for Parli Unit 6, submitted that the Commission had approved Station Heat Rate of 2500 kcal/kWh for Parli Unit-6. However, in FY 2009-10, the Station Heat Rate of Parli Unit-6 had been 2798 kcal/kWh. MSPGCL submitted the reason for increase in fuel consumption to frequent tripping totalling 18 till December 18, 2010 due to turbine shaft vibrations, single stream of CHP and material failure of drain line due to poor workmanship. MSPGCL projected SHR of 2650 kcal/kWh for FY 2010-11.

#### **Paras Unit 3**

MSPGCL, in its Petition for Paras Unit 3, submitted that the Commission had approved Station Heat Rate of 2500 kcal/kWh for Paras Unit-3. However, in FY 2009-10, the



Station Heat Rate of Paras Unit-3 had been 2956 kcal/kWh. MSPGCL with regards to higher fuel consumption, submitted that it was due to non availability of stand by coal mill which resulted in choking of heater basket. This further led to furnace draft variation and resulted into boiler structure vibration. To control the vibration the unit was partially loaded which resulted into deviation in performance parameters. MSPGCL further submitted that due to high demand and peak load shortage it could not take a shutdown for rectification of the said problem. MSPGCL further submitted that problems related to other equipment like Primary Air Fan, ID Fan, Coal Mill, Various Tripping were also major reasons for higher fuel oil consumption. MSPGCL also submitted that due to reduction of 1% in PLF the increase in heat rate is 2.5kcal/kWh. MSPGCL projected SHR of 2650 kcal/kWh for FY 2010-11.

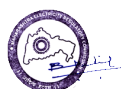
The Commission has analysed the submissions made by MSPGCL and finds no merit in allowing higher heat rate on account of frequent failure of equipment as the two Units are new and the 250 MW Units are proven technologies and therefore ideally such issues should not arise and, therefore the Units are expected to operate efficiently. The Commission has adhered to the provisions of MERC Tariff Regulations, 2005, while approving the heat rate for the two Units. The summary of Station Heat Rate as approved in MYT Order, proposed by MSPGCL in the current Petition, and values approved by the Commission for FY 2009-10 and FY 2010-11 are given in the following Table:

**Table: Station Heat Rate (kcal/kWh) for FY 2009-10 & FY 2010-11**

Station	2009-10			2010-11		
	MYT Order	Revised Estimate	Approved	MYT Order	Revised Estimate	Approved
<b>Parli Unit 6</b>	2500	2798	2500	2500	2650	2500
<b>Paras Unit 3</b>	2500	2956	2500	2500	2650	2500

### 3.1.4. Transit Loss

MSPGCL, in its revised Petition, submitted transit loss for Parli Unit 6 as (0.23) % for FY 2009-10 in which the transit loss for the period Oct 2009-Mar 2010 was submitted as (1.46) %. However, for FY 2010-11, MSPGCL has projected the transit loss of 0.80%. The Commission, in its data gaps sent on February 7, 2011, asked MSPGCL to submit the reason for negative transit loss. MSPGCL, in its reply dated March 3, 2011, submitted that the transit loss data have been submitted as per the data recorded by the Unit. Further, it was submitted that negative transit losses as observed during the month of Oct 09 to



March 2010 may be an outcome of difference in calibration of weighbridges. So far as calibration at MSPGCL side is concerned, the same are being witnessed by a representative from MSPGCL's SE (Coal) office, Nagpur on regular basis who finally seals the apparatus. Further, weighbridges are checked and stamped once in a year by Government Weight & Measurement authority.

MSPGCL submitted that it has explored the reasons for such difference and has observed that coal measured at TPS is higher than RR weight. The RR weights are measured at in-motion weighbridges of coal companies/Railways, whereas at the TPS end, the same is measured on static weighbridges. It may be appreciated that static weighbridges are more accurate than in motion weigh bridges, which could be a cause of TPS recording more coal quantity.

MSPGCL submitted that for the purpose of ARR determination, the Commission may consider normative transit losses. Further, MSPGCL is in discussion with the Coal Companies to converge the measured coal quantities.

For Paras Unit 3, MSPGCL submitted that the transit loss for FY 2009-10 is 6.10%. The Commission, in its data gaps sent on February 7, 2011, asked MSPGCL to give reasons for the high transit loss. MSPGCL, in its reply dated March 03, 2011, submitted as follows;

- As per the Judgment of Hon'ble Supreme Court of India against contempt petition No. 245 of 2007 on dt. 19.12.2008, MSPGCL had to allocate the liaison contract to M/s B.S.N. Joshi & Sons Ltd. The tender document of this contract was published in Feb. 2005 based on coal supply and regulatory scenario at that time. However, MSPGCL had to operate this contract in the year 2009 in the changed coal supply and regulatory scenario.
- MSPGCL has incurred heavy financial loss due to transit loss. As this contract became detrimental to MSPGCL due to poor performance, the contract was therefore terminated on 12.09.2009.
- As an interim arrangement, MSPGCL gave the liaison contract to M/s Nair Coal Services, M/s Naresh Kumar & Co, and M/s KCT & Brothers on 25.09.2009. In these contracts, penalty for transit loss is included keeping all the rates, terms and conditions as per M/s B. S. N. Joshi & Sons' (BSNJ) contract.
- Heavy transit losses were observed during the liaison period of M/s BSNJ from March 2009 to Sep 2009 because the penalty clause on transit loss was not



included in Feb. 2005 tender. However, from the beginning of new liaison contract under the interim arrangement, the transit loss is within the limit of 0.8 % specified by the Commission. MSPGCL submitted that it has always maintained that transit losses are an uncontrollable parameter and that MSPGCL has no direct control over the same. While the losses had been lower during the previous year, however, the same had increased significantly during the current year on account of external factors (Judgment of Hon'ble Supreme Court).

The Commission has considered normative transit loss of 0.8% as per the provisions of MERC Tariff Regulations, 2005, and the benefit in case of Parli Unit 6 and loss in case of Paras Unit 3 on account of variation between actual and normative transit loss is being shared between the Generating Company and the Distributing Licensee (MSEDCL) in accordance with mechanism of sharing of efficiency gains and losses specified in the MERC Tariff Regulations, 2005.

### **3.1.5. Secondary Fuel Oil Consumption (SFOC)**

#### **Parli Unit 6**

MSPGCL, in its Petition for Parli Unit 6, submitted that the Commission in its MYT Order had approved secondary fuel oil consumption of 2 ml/kWh. MSPGCL submitted that the actual specific oil consumption in FY 2009-10 has been 4.09 ml/kWh. MSPGCL submitted that the main reason for higher SFOC is partial loading of the Unit and frequent tripping which led to increased oil support and therefore higher SFOC. MSPGCL projected the consumption as 2 ml/kWh for FY 2010-11.

#### **Paras Unit 3**

MSPGCL, in its Petition for Paras Unit 3, submitted that the Commission in its MYT Order had approved secondary fuel oil consumption of 2 ml/kWh. MSPGCL submitted that the actual specific oil consumption in FY 2009-10 has been 5.86 ml/kWh. MSPGCL submitted that the main reason for increase in secondary fuel oil consumption were partial loading of Units due to various technical problems which has led to considerable increase in the amount of oil support needed thereby increasing the secondary fuel oil consumption. MSPGCL projected the consumption as 2ml/kWh for FY 2010-11.

The Commission observes that the secondary fuel oil consumption of both the Units is very high for FY 2009-10. This is despite the fact the Units are new. The Commission finds no merit in allowing higher secondary fuel oil consumption on account of frequent breakdowns and tripping which is not expected from newly Commissioned Units.



Moreover since the 250 MW Units are proven technologies therefore such technical snags are unjustified. Therefore, the Commission has considered normative secondary fuel oil consumption of 2 ml/kWh as stipulated in the MERC Tariff Regulations, 2005.

The summary of secondary fuel oil consumption as approved in MYT Order, proposed by MSPGCL in the current Petition, and as approved by the Commission for FY 2009-10 and FY 2010-11 is given in the following Table:

**Table: Specific Oil Consumption (ml/kWh) for FY 2009-10 & FY 2010-11**

Station	FY 2009-10			FY 2010-11	
	MYT Order	Revised	Approved	Projected	Approved
<b>Parli Unit 6</b>	2.00	4.09	2.00	2.00	2.00
<b>Paras Unit 3</b>	2.00	5.86	2.00	2.00	2.00



#### **4. ANALYSIS OF ENERGY AVAILABILITY, ENERGY CHARGE AND ANNUAL FIXED CHARGES FOR FY 2009-10 AND FY 2010-11**

MSPGCL, in its APR Petition for FY 2009-10 and Tariff Petition for FY 2010-11 submitted the performance for FY 2009-10 based on actual performance for the first half of the year, i.e., April to September 2009, and revised estimate of performance for the second half of the year, i.e., October 2009 to March 2010. MSPGCL submitted the comparison of each element of cost for FY 2009-10 with that approved by the Commission in its Orders for Parli Unit 6 and Paras Unit 3 dated October 21, 2009 and December 15, 2009, respectively. The Commission will undertake the final truing up of expenses and revenue for FY 2009-10 only after the audited accounts of MSPGCL for FY 2009-10 are available. However, in this Order on APR for FY 2009-10 and tariff determination for FY 2010-11, the Commission has considered provisional truing up of certain elements of ARR due to revision in capital expenditure/capitalisation figures. Before proceeding towards determination of tariff for FY 2010-11, it is essential to assess the performance during FY 2009-10. Accordingly, the revised estimate of performance of MSPGCL during FY 2009-10 as compared to Commission's MYT Order for Parli Unit 6 and Paras Unit 3 is analysed in this Section, followed by the approval of the expenditure for FY 2010-11.

MSPGCL submitted that it understands that the new Units should ideally operate within the technical limits specified under the Tariff Regulations. MSPGCL submitted that it had been trying to align the performance with the expectations of the Commission, however, on account of certain inherent factors pertaining to quality of coal, design aspects of Unit and other technical issues, the performance of the Units have shown deviation from the normative limits specified in the Regulations.

The performance parameters approved by the Commission for FY 2009-10 vis-à-vis the actual performance achieved by the Units during FY 2009-10 and projections for the ensuing year as submitted by MSPGCL are given in the table below. MSPGCL has also attempted to justify the deviation from the prescribed norms.



**Table: Performance Parameters of Parli Unit 6 of MSPGCL**

Particulars	Units	FY 2009-10		FY 2010-11
		Approved	Actuals	MSPGCL Projections
Installed Capacity	MW	250	250	250
Availability	%	80	67.49	80
PLF	%	80	67.49	80
Gross Generation	MU	1752	1431	1752
Auxiliary Consumption	%	9.00%	10.94%	9.00%
Station Heat Rate	kcal/kWh	2500	2798	2650
Variable Cost	Rs/ kWh	1.37	2.06	1.8

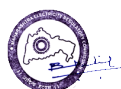
**Table: Performance Parameters of Paras Unit 3 of MSPGCL**

Particulars	Units	FY 2009-10		FY 2010-11
		Approved	Actuals	MSPGCL Projections
Installed Capacity	MW	250	250	250
Availability	%	80.00	69.89	80.00
PLF	%	80.00	69.89	80.00
Gross Generation	MU	1752	1478	1752
Auxiliary Consumption	%	9.00%	10.84%	9.00%
Station Heat Rate	kcal/kWh	2500	2956	2650
Variable Cost	Rs/kWh	1.43	1.93	1.64

MSPGCL submitted the reasons for deviation in performance for FY 2009-10 and projections for FY 2010-11 as under:

#### **4.1. AVAILABILITY AND PLF**

MSPGCL submitted that the availability as per the MERC Tariff Regulations, 2005 during FY 2009-10 has been 67.49% for Parli Unit 6 because of the planned outages of 60 days for attending to the problem of high HP turbine shaft vibrations. For Paras Unit 3, the estimated availability during FY 2009-10 is 69.89%.



For FY 2010-11, MSPGCL has planned annual overhauling (AOH) of the Unit for 27 days and 25 days for Parli Unit 6 and Paras Unit 3, respectively. MSPGCL has estimated availability of 80% for both the Units for FY 2010-11.

As regards availability of the two Units, the Commission observes that since both the Units are new and have stabilised therefore, they should operate at full efficiency. The Commission hence, finds no reasons to deviate from the operational norms specified in the MERC Tariff Regulations, 2005. The Commission, therefore, for FY 2009-10 and FY 2010-11 approves availability of 80% for full recovery of fixed charges for both the Units.

#### **4.2. AUXILIARY CONSUMPTION**

MSPGCL submitted that the Auxiliary Consumption for FY 2009-10 for Parli Unit 6 and Paras Unit 3 had been 10.94% and 10.84%, respectively. MSPGCL submitted that the factors contributing towards the increase in auxiliary consumption is the low PLF of the Units on account of technical issues. Further, MSPGCL has projected an auxiliary consumption of 9% in FY 2010-11 for both the Units.

As regards auxiliary consumption of the two Units, the Commission observes that since both the Units are new and have stabilised, therefore, they should operate at full efficiency. The Commission, hence, finds no reasons to deviate from the operational norms specified in the MERC Tariff Regulations, 2005. The Commission, therefore, for FY 2009-10 and FY 2010-11 approves auxiliary consumption of 9% for both the Units.

#### **4.3. GROSS AND NET GENERATION**

The Commission will undertake the final truing up of gross generation for FY 2009-10 based on actual performance for the entire year along with the reasons for variation in actual generation, during Performance Review for the third year of the Control Period.

The Commission, based on the approach mentioned in above paragraphs and in Section 3 of this Order, has approved gross and net generation for both the Units as shown in the tables below.

***Table: Approved Gross and Net Generation (MU) for Parli Unit No. 6***

Generation	FY 2009-10			FY 2010-11	
	Approved in MYT	Projected	Approved	Projected	Approved



Generation	FY 2009-10			FY 2010-11	
	Approved in MYT	Projected	Approved	Projected	Approved
Gross Generation	1752	1431	1752	1752	1752
Net Generation	1594	1274	1594	1594	1594

*Table: Approved Gross and Net Generation for Paras Unit 3*

Generation	FY 2009-10			FY 2010-11	
	Approved in MYT	Projected	Approved	Projected	Approved
Gross Generation	1752	1478	1752	1752	1752
Net Generation	1594	1318	1594	1594	1594

#### 4.4. VARIABLE COST FOR PARLI UNIT 6 AND PARAS UNIT 3

##### 4.4.1. Fuel Cost for FY 2009-10

MSPGCL, in its Petition for Parli Unit 6 and Paras Unit 3, submitted that the total fuel cost for FY 2009-10 is estimated to be Rs. 240.76 Crore and Rs. 248.06 Crore (excluding other variable charges), respectively. MSPGCL submitted that it has estimated the fuel prices for second half of FY 2009-10, considering the actual fuel prices during H1 of FY 2009-10. As the impact of variation in fuel prices is allowed as pass through under the FAC mechanism, in this Order, the Commission has not considered any revision in fuel prices for FY 2009-10, however, the Commission has estimated the total fuel costs considering the performance parameters as approved in Section 3 of the Order.

The summary of variable cost as estimated by MSPGCL and as approved by the Commission for FY 2009-10 is given in the table below.

*Table: Fuel cost Approved for Parli Unit 6 and Paras Unit 3 for FY 2009-10 (Rs. Crore)*

Stations	Approved in MYT Order	MSPGCL	Approved
Parli Unit 6	207.21	240.76	234.57
Paras Unit 3	224.13	248.06	227.18

##### 4.4.2. Fuel Price and Fuel Calorific Value for FY 2010-11

MSPGCL, in its Petition for both the Units, has submitted that it intends to use indigenous coal and washed coal for the ensuing year FY 2010-11. Further, MSPGCL submitted that



the price and calorific value of domestic and washed coal is considered as per the original submissions made on February 5, 2010.

MSPGCL, with respect to secondary fuel oil consumption submitted that for Parli Unit 6, the prices and calorific values of oil have been projected to be the same as taken in the original Petition, whereas for Paras Unit 3, the prices of oil have been projected at 4% above the actual prices in FY 2009-10.

The Commission asked MSPGCL to submit the actual fuel price and calorific value of fuels for the period of April to September 2010. MSPGCL, in its reply dated March 03, 2011 submitted the fuel price details. However, MSPGCL did not submit the calorific values of different fuels used by it for the said period.

The Commission has taken note of the submissions made by MSPGCL. For FY 2010-11, the Commission has considered the actual price of fuel equivalent to average actual fuel price for the period April to September 2010. The Commission has considered the calorific value of fuel as submitted by MSPGCL in its revised Petition. The Commission has not considered any escalation in fuel prices as the adjustment for variations in fuel prices is allowed as part of FAC mechanism. The summary of Fuel Prices and calorific value as considered by the Commission for FY 2010-11 is given in the table below.

***Table: Summary of Fuel Price and Calorific value of Coal for FY 2010-11***

Particular	Indigenous Coal		Washed Coal	
	Price	Calorific Value	Price	Calorific Value
	Rs/MT	kcal/kg	Rs/MT	Kcal/kg
Parli Unit 6	2147	3650	2230	4221
Paras Unit 3	1954	3404	2085	3869

As regards secondary fuel oil consumption, the average fuel prices and calorific value for the period April 2010 to September 2010 have been considered by the Commission as shown in the table below.

***Table: Summary of Fuel Price and Calorific value for Secondary fuel for FY 2010-11***

Particular	Fuel Oil (FO)	Light Diesel Oil (LDO)
------------	---------------	------------------------



	Price	Calorific Value	Price	Calorific Value
	Rs/MT	kcal/kg	Rs/MT	Kcal/kg
Parli Unit 6	26,678	10,050	39,116	10,600
Paras Unit 3	27,166	10,200	36,794	10,500

#### 4.4.3. Other Variable Charges

MSPGCL, in its Petition for both the Units, submitted that it has considered the cost of lubricants, chemicals and water charges, etc., as part of energy charge. The Commission has included the cost of these other items, viz., lubricants, chemicals and water charges, etc. as part of variable costs while estimating the energy charges. For FY 2009-10, the Commission has not carried out any provisional revision, however, for FY 2010-11, the Commission has considered these costs for each Unit based on actual costs incurred during FY 2008-09. The summary of Unit-wise cost of other variable charges considered by the Commission is given in the following Table:

*Table: Summary of Other Variable Costs and Adjustments for FY 2010-11 (Rs Crore)*

Stations	Rs Crore
Parli Unit 6	10.55
Paras Unit 3	5.81

#### 4.4.4. Rate of Energy Charge

Based on performance parameters, i.e., heat rate and auxiliary consumption approved for FY 2010-11, and considering the fuel prices and fuel calorific value as discussed in above paragraphs, the rate of energy charge for each thermal generating Unit for FY 2010-11 as approved by the Commission is given in the Table below. The summary of the total variable cost and rate of energy charge as projected by MSPGCL and as approved by the Commission for FY 2010-11 is also shown in the Table below:

*Table: Total Variable Cost and Rate of Energy Charge per unit for FY 2010-11*

S.No	Station	Variable Cost as per MSPGCL (Rs Crore)	Total Variable Cost Approved (Rs Crore)	MSPGCL Rate of Energy Charge (Rs./kWh)	Rate of Energy Charge Approved (Rs./kWh)
1	Parli Unit 6	287.69	273.45	1.80	1.72
2	Paras Unit 3	260.91	251.72	1.64	1.58



#### **4.5. ANNUAL FIXED CHARGES**

MSPGCL, in its APR Petition for Parli Unit 6 and Paras Unit 3, provided the details of fixed charges estimated by the Commission for FY 2009-10 in its Order dated October 21, 2009 and Order dated December 15, 2009, respectively vis-à-vis the revised estimates for FY 2009-10.

MSPGCL submitted that the fixed charges had been estimated in accordance with Regulation 34 of the MERC Tariff Regulations, 2005. The detailed explanation for deviations in the approved expenses with respect to the revised estimates has been provided in the following paragraphs.

##### **4.5.1. O&M Expenses**

MSPGCL submitted that the Commission, in its Order dated October 21, 2009 for Parli Unit 6 and Order dated December 15, 2009 for Paras Unit 3, had approved Rs 33.13 Crore of O&M expenses for FY 2009-10 for each of the Units. MSPGCL further submitted that the Commission in the APR Order for 2009-10 (Case No. 102 of 2009) dated September 12, 2010 pertaining to the true-up of FY 2008-09 for existing stations of MSPGCL, had approved Rs 90.55 Crore as impact of pay revision for existing stations (out of the petitioned impact of Rs 95 Crore) and had excluded Rs 4.55 Crore towards Paras Unit 3 and Parli Unit 6. Therefore, MSPGCL has sought recovery of Rs 2.275 Crore (pro-rata) as additional O&M expenses in FY 2008-09 due to the impact of pay revision.

MSPGCL in the section pertaining to the true-up of O&M expenses, has emphasized on the fact that the impact due to pay revision is recurring in nature and should form the base for all successive year's O&M allowance.

MSPGCL, in its Petition has sought the O&M expenses for FY 2009-10 at 6.05% above the O&M expenses of FY 2008-09 of Rs 33.52 Crore (Rs 31.24 Crore + Rs 2.275 Crore). Thus, MSPGCL has requested the Commission to permit recovery of O&M expenses at Rs 35.54 Crore for FY 2009-10.

MSPGCL submitted that an escalation index of 7.02% may kindly be considered for estimating the increase in O&M expenses for FY 2010-11 over FY 2009-10 for both Parli Unit 6 and Paras Unit 3. Thus, MSPGCL estimated the O&M expenses for FY 2010-11 to be Rs 38.04 Crore.



As MSPGCL has not separately submitted the impact of pay revision for FY 2009-10 and FY 2010-11, the Commission, at this stage, has therefore, not considered the impact of pay revision while computing the O&M expenses for FY 2009-10 and FY 2010-11. The Commission will consider the impact of pay revision while carrying out the truing up based on actual expenses.

The Commission for calculating approved O&M cost for FY 2009-10 and FY 2010-11 has escalated the approved O&M expenses of Rs. 31.24 Crore for FY 2008-09 by 5.48% and 7.02%, respectively. The escalation rates considered are the rates considered by the Commission while approving the O&M cost for existing stations in Case No. 102 of 2009. The following table shows O&M expenses as approved in MYT Order, projected by MSPGCL, and now allowed by Commission.

**Table: O&M Expenses allowed for FY 2009-10 and FY 2010-11**

Stations	FY 2009-10		FY 2010-11		
	Approved in MYT Order	Projected	Approved	Projected	Approved
<b>Parli Unit 6</b>	33.13	35.54	32.95	38.04	35.26
<b>Paras Unit 3</b>	33.13	35.54	32.95	38.04	35.26

#### **4.5.2. Capital Expenditure & Capitalisation**

Capital expenditure and capitalisation are two important variables that influence computation of various critical parameters such as depreciation, advance against depreciation, and interest on long term debt and return on equity. Accordingly, variation in approved values of these variables over the Control Period needs to be evaluated carefully during Annual Performance Review along with scrutiny of reasons necessitating such review.

As discussed in Section 2 of the Order, the Commission has considered the Original Capital Cost as on COD as approved in MYT Order.

As regards additional capitalisation, the Commission in its data gaps, queried MSPGCL regarding its submission in the revised Petition of Parli Unit 6 in Form 5.4 for FY 2009-10, where MSPGCL has submitted opening and closing CWIP as Rs. 0.22 crore and Rs. 0.65 crore, respectively, whereas the investment during the year was Rs. 4.42 Crore and



the amount capitalised was Rs 4.64 Crore. Although the opening CWIP and investment during the year has been entirely capitalised, MSPGCL has mentioned the closing CWIP as Rs. 0.65 Crore. MSPGCL, in its reply dated March 03, 2011, submitted revised Form 5.4 submitting the capitalisation for FY 2009-10 as Rs 4.64 crore and Rs 8.09 Crore for FY 2010-11.

MSPGCL for Paras Unit 3 submitted that it has estimated a capital expenditure of Rs. 0.15 Crore for FY 2009-10 and no capitalisation in FY 2010-11.

Further, the Commission in its data gaps, asked MSPGCL to submit the details of year-wise Additional Capitalisation with justification of capitalization in accordance with Regulation 30.2 and 30.3 of MERC Tariff Regulations, 2005. MSPGCL, in its reply dated March 03, 2011, submitted that Capital Expenditure schemes for FY 2009-10 in Form 5.4 are included in original cost of the project and are classified as works deferred for execution. MSPGCL further submitted that that the items appearing under the capitalization were also present in the Petition for determination of Final Tariff for the Unit and therefore signifies the fact that they were part of the original scope of work.

The Commission has gone through MSPGCL's submission and has allowed the capitalisation amount for FY 2009-10 and FY 2010-11 as claimed by MSPGCL. The summary of the approved capitalization and revised estimated capitalization as submitted by MSPGCL and that approved by the Commission is given in following Table:

**Table: Additional Capitalisation as Approved for FY 2009-10 and FY 2010-11**

Additional Capitalisation	FY 2009-10			FY 2010-11	
	Approved in MYT	Projected	Approved	Projected	Approved
<b>Parli Unit 6</b>	-	4.64	4.64	8.09	8.09
<b>Paras Unit 3</b>	-	0.15	0.15	0.00	0.00

#### **4.5.3. Depreciation**

MSPGCL submitted that it has calculated depreciation on the opening Gross Fixed Asset (GFA), at the rates specified in the depreciation schedule in the MERC Tariff Regulations 2005. For the purpose of this Annual Performance Review, MSPGCL under Scenario-2 (Capital Cost as per principles adopted by Commission in MYT Order dated October 21, 2009 for Parli Unit 6 and MYT Order dated December 15, 2009 for Paras Unit 3), has



considered opening gross fixed asset for FY 2009-10 based on the capital cost after considering the reduction in capital cost due to trial run expenses, cost of common facilities, etc.

MSPGCL further submitted that GFA for the plant is projected based on the capitalization plan for FY 2009-10 and FY 2010-11.

The Commission, in its MYT Order for Parli Unit 6 and Paras Unit 3 has approved total depreciation of Rs. 40.89 Crore and Rs. 43.29 Crore, respectively, for FY 2009-10. The Commission has calculated depreciation for FY 2009-10 and FY 2010-11 as per the rates specified in the MERC Tariff Regulations, 2005, considering the opening GFA as considered by the Commission in its MYT Orders for Parli Unit 6 and Paras Unit 3 and additional capitalisation approved by the Commission in this Order. The depreciation approved by the Commission in MYT Order, projected in the current Petition and that approved by Commission for both the Units are as shown in the table below:

**Table: Depreciation approved for FY 2009-10 and FY 2010-11 (Rs. Crore)**

Depreciation	FY 2009-10			FY 2010-11	
	Approved in MYT	Projected	Approved	Projected	Approved
<b>Parli Unit 6</b>	40.89	47.89	45.83	48.06	46.00
<b>Paras Unit 3</b>	43.29	46.33	47.48	46.34	47.49

#### **4.5.4. Advance against Depreciation (AAD)**

MSPGCL submitted that MSPGCL has not considered AAD as the Commission has disallowed it in the MYT Order dated October 21, 2009 for Parli Unit 6 and in MYT Order dated December 15, 2009 for Paras Unit 3. However, MSPGCL reiterated that it has clearly identified loan portfolio used for funding the project and considering that the amount of loan repayment for such loans is higher than the allowable depreciation it should be entitled to AAD. The same is the subject matter of Appeal 72 of 2010 and Appeal No. 99 for Parli Unit 6 and Paras Unit 3, respectively, with the Hon'ble ATE.

The Commission observes that MSPGCL has filed an appeal against the Commission's approach for allowing AAD. As the matter is sub-judice, the Commission, has continued with its approach for not allowing station-wise Advance against Depreciation.



The Commission is of the view that Advance Against Depreciation is intended to meet shortfall in meeting loan repayment obligations of the Generating Company, and is not intended to provide additional cash flow to the Generation Company. While tariff is determined on a station-wise basis, AAD is a special provision, which enables the Utility to meet its loan repayment obligations as a whole rather than for each Station. Giving AAD on a station-wise basis may result in a situation, where the generation tariffs are determined higher to account for the component of AAD, even though the Company has enough funds to meet its loan repayment obligations.

Accordingly, the Commission has not allowed advance against depreciation for FY 2009-10 and FY 2010-11.

#### 4.5.5. Debt Equity Ratio for Parli Unit 6 and Paras Unit 3 under Scenario-2

MSPGCL submitted that the debt equity ratio as on CoD under Scenario-2 for Parli Unit 6 is considered at 72.75:27.25, same as approved by the Commission in the MYT Order dated October 21, 2009. The overall capital cost is considered at Rs. 1,213.18 Crore after reducing the cost of disallowed spares, cost of trial run expenses and cost of common facilities. MSPGCL further submitted that the additional capitalization in FY 2008-09 to FY 2010-11 is funded from internal accruals.

The financing plan of Parli Unit 6 up to FY 2009-10 and projections up to FY 2010-11 under Scenario-2 is provided in the table below:

*Table: Debt Equity Ratio for Parli Unit 6 – Scenario-2 (Rs Crore)*

Particulars	As on CoD	As on 31/3/2008	As on 31/3/2009	As on 31/3/2010	As on 31/3/2011
<b>Loan</b>					
Loan From PFC	746.46	746.46	746.46	746.46	746.46
Loan From GoM	136.13	136.13	136.13	136.13	136.13
<b>Total Loan</b>	<b>882.59</b>	<b>882.59</b>	<b>882.59</b>	<b>882.59</b>	<b>882.59</b>
<b>Equity-</b>					
Domestic (GoM)	3	3	3	3	3
Internal Accruals	327.59	327.55	467.27	471.91	480
<b>Total Equity</b>	<b>330.59</b>	<b>330.55</b>	<b>470.27</b>	<b>474.91</b>	<b>483</b>
<b>Total Gross Fixed Assets</b>	<b>1213.18</b>	<b>1213.14</b>	<b>1352.86</b>	<b>1357.49</b>	<b>1365.58</b>
<b>Debt : Equity</b>	<b>72.75 : 27.25</b>	<b>73:27:00</b>	<b>65:35:00</b>	<b>65:35:00</b>	<b>65:35:00</b>



Particulars	As on CoD	As on 31/3/2008	As on 31/3/2009	As on 31/3/2010	As on 31/3/2011
<b>Ratio</b>					

MSPGCL submitted that the debt equity ratio as on CoD under Scenario-2 for Paras Unit 3 is considered at 75.80:24.20, same as considered by the Commission in the MYT Order dated December 15, 2009. The overall capital cost is considered at Rs. 1175.22 Crore after reducing the cost of disallowed spares, cost of trial run expenses and cost of common facilities. MSPGCL further submitted that the additional capitalization in FY 2008-09 to FY 2010-11 is funded from internal accruals.

MSPGCL submitted the financing plan of Paras Unit 3 up to FY 2009-10 and projections up to FY 2010-11 under Scenario-2 as provided in the table below:

*Table: Debt Equity Ratio for Paras Unit 3 – Scenario-2 (Rs Crore)*

Particulars	As on CoD	As on 31/3/2009	As on 31/3/2010	As on 31/3/2011
<b>Loan</b>				
Loan From PFC	770.02	770.02	770.02	770.02
Loan From GoM	120.80	120.80	120.80	120.80
<b>Total Loan</b>	<b>890.82</b>	<b>890.82</b>	<b>890.82</b>	<b>890.82</b>
<b>Equity-</b>				
Domestic (GoM)	39.00	39.00	39.00	39.00
Internal Accruals	245.40	360.80	360.95	360.95
<b>Total Equity</b>	<b>284.40</b>	<b>399.80</b>	<b>399.95</b>	<b>399.95</b>
<b>Total Gross Fixed Assets</b>	<b>1175.22</b>	<b>1290.61</b>	<b>1290.76</b>	<b>1290.76</b>
<b>Debt : Equity Ratio</b>	<b>75.8:24.2</b>	<b>69:31</b>	<b>69:31</b>	<b>69:31</b>

*\* The withdrawal of un-recovered cost of fuel consumed for generation of infirm power of Rs 47.40 has been reduced from internal accruals*

MSPGCL submitted that the capital employed in the succeeding years is higher than the prescribed normative level of 30% as the additional capitalization is funded by internal accruals. MSPGCL submitted that the actual financing pattern may be accepted for the purpose of tariff determination. MSPGCL further submitted that in case the Commission determines the tariff based on the normative debt:equity ratio of 70:30, then the equity component above normative equity of 30% would be eligible for normative interest on debt.



The Commission has considered normative debt equity ratio of 70:30 while approving equity eligible for return and equity employed in excess of 30% has been taken as normative loan and accordingly interest on normative loan has been allowed. Considering the above approach, the capital structure for Parli Unit 6 and Paras Unit 3 as approved by the Commission is shown in the table below.

**Table: Approved Capital Structure for Parli Unit 6 (Rs Crore)**

<b>Capital Cost</b>	<b>COD</b>	<b>31/03/2008</b>	<b>31/03/2009</b>	<b>31/03/2010</b>	<b>31/03/2011</b>
Debt	840.52	840.52	840.52	840.52	840.52
<b>Additional Capitalisation</b>	<b>0</b>	<b>(0.04)</b>	<b>139.72</b>	<b>4.64</b>	<b>8.09</b>
<b>Add Cap Funding</b>					
Normative Loan	0.00	0.00	66.01	3.25	5.66
Equity Added			73.72	1.39	2.43
Total Equity	314.83	314.79	388.51	389.90	392.33
<b>Total Capital Cost</b>	<b>1155.35</b>	<b>1,155.31</b>	<b>1,295.04</b>	<b>1,299.68</b>	<b>1,307.77</b>
<b>Debt/Equity Ratio</b>	<b>72.75:27.25</b>	<b>73.0:27.0</b>	<b>70.0:30.0</b>	<b>70.0:30.0</b>	<b>70.0:30.0</b>

**Table: Approved Capital Structure for Paras Unit 3 (Rs Crore)**

<b>Capital Cost</b>	<b>COD</b>	<b>31/03/2009</b>	<b>31/03/2010</b>	<b>31/03/2011</b>
Debt	915.14	915.14	915.14	915.14
<b>Additional Capitalisation</b>	<b>0</b>	<b>115.58</b>	<b>0.15</b>	<b>0</b>
<b>Add Cap Funding</b>				
Normative Loan	0.00	10.87	0.11	0.00
Equity Added		104.71	0.05	0.00
Total Equity	292.15	396.86	396.91	396.91
<b>Total Capital Cost</b>	<b>1207.29</b>	<b>1,322.87</b>	<b>1,323.02</b>	<b>1,323.02</b>
<b>Debt/Equity Ratio</b>	<b>75.8:24.2</b>	<b>70.0:30.0</b>	<b>70.0:30.0</b>	<b>70.0:30.0</b>

#### 4.5.6. Return on Equity (RoE)

MSPGCL submitted that it has considered a RoE of 14% on the opening equity investment. The detailed computation of RoE as submitted by MSPGCL has been provided in the table below:



**Table: Return on Equity for Parli Unit 6 and Paras Unit 3 (Rs Crore)**

Particulars	Parli Unit. 6		Paras Unit 3	
	FY 2010	FY 2011	FY 2010	FY 2011
Opening Balance of Equity at the commencement of Financial Year (A)	470.27	474.91	399.8	399.95
Equity portion of assets capitalised (B)	4.64	8.09	0.15	-
<b>Closing Balance of Equity (A+B)</b>	<b>474.91</b>	<b>483</b>	<b>399.95</b>	<b>399.95</b>
<b>Return Computation</b>				
Return on Equity at the beginning of the year (A*14%)	65.84	66.49	55.97	55.99
<b>Total Return on Equity</b>	<b>65.84</b>	<b>66.49</b>	<b>55.97</b>	<b>55.99</b>

MSPGCL submitted that though it has claimed return on equity on the opening balance of equity for the purpose of this Petition, it would like to reiterate the issue of allowance of return on equity on the additional capitalization during the year which has been discussed by it in the true-up section. MSPGCL has pleaded that half year pro-rata return should be allowed to MSPGCL on the equity component of the additional capitalization during the years 2009-10 and 2010-11.

The Commission in its MYT order date October 21, 2009 in Case number 26 of 2008 has stated as follows;

*“Further, the Commission observes that MSPGCL has also considered the return on equity on the additional capitalisation during the year. However, in accordance with the MERC (Terms and Conditions of Tariff) Regulations, 2005, return on equity needs to be computed only on the opening equity and not on the assets added during the year. Accordingly, while working out the return on equity for FY 2008-09 and FY 2009-10, the Commission has considered the opening equity only.”*

The Commission has therefore, allowed return on opening equity only as per the provisions of MERC Tariff Regulations. The summary of return on equity as approved in MYT, as proposed by MSPGCL and that approved by the Commission is given in the Table below.



**Table: Return on Equity for 2009-10 & 2010-11 for and Parli Unit 6 (Rs. Crore)**

\Particulars	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGCL	Approved	MSPGCL	Approved
Opening Equity	314.83	470.27	388.51	474.91	389.90
Equity portion of capital expenditure	-	4.64	1.39	8.09	2.43
Regulatory Equity at the end of the year	314.83	474.91	389.90	483.00	392.33
Return on Equity @ 14%	44.08	65.84	54.39	66.49	54.59
Return on Equity added during the year	-	-	-	-	-
<b>Total Return on Equity</b>	<b>44.08</b>	<b>65.84</b>	<b>54.39</b>	<b>66.49</b>	<b>54.59</b>



**Table: Return on Equity for 2009-10 & 2010-11 for Paras Unit 3 (Rs. Crore)**

Particulars	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGCL	Approved	MSPGCL	Approved
Opening Equity	292.15	399.80	396.86	399.95	396.91
Equity portion of capital expenditure	-	0.15	0.04	-	-
Regulatory Equity at the end of the year	292.15	399.95	396.91	399.95	396.91
Return on Equity @ 14%	40.90	55.97	55.56	55.99	55.57
Return on Equity added during the year	-	-	-	-	-
<b>Total Return on Equity</b>	<b>40.90</b>	<b>55.97</b>	<b>55.56</b>	<b>55.99</b>	<b>55.57</b>

#### **4.5.7. Interest on Long Term Loans and Finance Charges**

##### **Interest on Long Term Loans**

MSPGCL submitted that it has taken long-term loans from two agencies, viz., Power Finance Corporation (PFC) and Government of Maharashtra for funding the capital expenditure for Parli Unit 6 and Paras Unit 3.

MSPGCL has submitted the normative loan balance that would have been approved by the Commission considering the principles adopted in its MYT Orders dated October 21, 2009 for Parli Unit 6 and December 15, 2009 for Paras Unit 3.

MSPGCL projected no drawals in these loans in FY 2009-10 and FY 2010-11 as the additional capitalization was proposed to be funded from internal accruals.

MSPGCL submitted that the interest charges for FY 2009-10 have been considered on pro rata basis under Scenario-2. For FY 2010-11, MSPGCL has projected an interest rate of 11.75%.

MSPGCL submitted that the Commission has clarified in a catena of Orders that any deviation in interest expenses on account of variation of interest rate shall be considered based on actuals, subject to prudence check, for the purpose of truing up during subsequent annual performance review. MSPGCL submitted that it would accordingly approach the Commission suitably for truing-up on interest expenses based on audited accounts.



The revised estimates of Interest on long term loans for FY 2009-10 and the projections for FY 2010-11 as submitted by MSPGCL are given in table below:

**Table: Estimates for Interest on Long Term Loan for Parli Unit 6 and Paras Unit 3 for FY 2009-10 & FY 2010-11 (Rs Crore)**

Source of Loan	FY 2009-10		FY 2010-11	
	Parli Unit 6	Paras Unit 3	Parli Unit 6	Paras Unit 3
<b>A. PFC – Loan No 21101012</b>				
Opening Balance	648.24	700.01	569.67	630.01
Loan Drawal during the year	0.00	0.00	0.00	0.00
Repayment during the year	78.57	70.00	78.57	70.00
Closing loan balance	569.67	630.01	491.09	560.01
<b>Interest expenses during the year</b>	<b>57.44</b>	<b>75.66</b>	<b>52.14</b>	<b>67.61</b>
<b>A. GOM</b>				
Opening Balance	115.50	105.70	99.00	90.60
Loan Drawal during the year	0.00	0.00	0.00	0.00
Repayment during the year	16.50	15.10	16.50	15.10
Closing loan balance	99.00	90.60	82.50	75.50
<b>Interest expenses during the year</b>	<b>12.41</b>	<b>11.36</b>	<b>10.52</b>	<b>9.62</b>

The Commission has considered the interest rate as submitted by MSPGCL for the loan availed from PFC and GoM. However, the Commission has considered the opening balance of loan on pro-rata basis based on the Capital cost and means of finance approved by the Commission in this Order.

Apart from the PFC and GoM loan, interest on normative loans has been allowed in the years where the total equity exceeded 30% of the Capital Cost. For repayment computation, the Commission has considered the tenure of normative loan as 10 years. The interest rate on normative loans considered by the Commission is the same considered by it in Case No. 102 of 2009. Accordingly, an interest rate of 10.50% and 11.0% has been approved for FY 2009-10 and FY 2010-11, respectively.

Therefore, the interest on loan as approved by the Commission in MYT Order, projected in current Petition and that approved by the Commission is as shown in the table below.



**Table: Interest on Long Term Loan for Parli Unit 6 for FY 2009-10 & FY 2010-11 (Rs Crore)**

Particulars	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGC L	Approved	MSPGC L	Approved
<b>A. PFC</b>					
Opening Loan Balance	609.65	648.24	611.71	569.67	537.56
Repayment During the Year	76.21	78.57	74.15	78.57	74.15
Closing Balance	533.44	569.67	537.56	491.09	463.41
<b>Interest Expenses</b>	<b>69.35</b>	<b>57.44</b>	<b>54.21</b>	<b>52.14</b>	<b>49.20</b>
<b>B. GoM</b>					
Opening Loan Balance	115.50	115.50	115.50	99.00	99.00
Repayment During the Year	16.50	16.50	16.50	16.50	16.50
Closing Balance	99.00	99.00	99.00	82.50	82.50
<b>Interest Expenses</b>	<b>12.41</b>	<b>12.41</b>	<b>12.41</b>	<b>10.52</b>	<b>10.52</b>
<b>C. Normative Loan</b>					
Opening Loan Balance	-	-	66.01	-	65.95
Drawn During the Year	-	-	3.25	-	5.66
Repayment During the Year	-	-	3.30	-	3.41
Closing Balance	-	-	65.95	-	68.20
<b>Interest Expenses</b>	<b>-</b>	<b>-</b>	<b>6.40</b>	<b>-</b>	<b>6.56</b>
<b>Total Interest Expenses</b>	<b>81.76</b>	<b>69.86</b>	<b>73.02</b>	<b>62.65</b>	<b>66.28</b>

**Table: Interest on Long Term Loan for Paras Unit 3 for FY 2009-10 & FY 2010-11 (Rs Crore)**

Particulars	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGCL	Approved	MSPGCL	Approved
<b>A. PFC</b>					
Opening Loan Balance	714.91	700.01	722.13	630.01	649.91
Repayment During the Year	79.43	70.00	72.21	70.00	72.21
Closing Balance	635.47	630.01	649.91	560.01	577.70
<b>Interest Expenses</b>	<b>77.65</b>	<b>75.66</b>	<b>78.05</b>	<b>67.61</b>	<b>69.74</b>
<b>B. GoM</b>					
Opening Loan Balance	105.7	105.70	105.70	90.60	90.60
Repayment During the Year	15.1	15.10	15.10	15.10	15.10



Particulars	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGCL	Approved	MSPGCL	Approved
Closing Balance	90.6	90.60	90.60	75.50	75.50
<b>Interest Expenses</b>	<b>11.29</b>	<b>11.36</b>	<b>11.36</b>	<b>9.62</b>	<b>9.62</b>
<b>C. Normative Loan</b>					
Opening Loan Balance	-	-	10.87	-	10.43
Drawn During the Year	-	-	0.11	-	-
Repayment During the Year	-	-	0.54	-	0.55
Closing Balance	-	-	10.43	-	9.88
<b>Interest Expenses</b>	<b>-</b>	<b>-</b>	<b>1.19</b>	<b>-</b>	<b>1.13</b>
<b>Total Interest Expenses</b>	<b>88.94</b>	<b>87.02</b>	<b>90.59</b>	<b>77.23</b>	<b>80.50</b>

### Finance Charges for Parli Unit 6

MSPGCL, for its Parli Unit 6, has estimated other financing charges at Rs 13.77 Crore for FY 2009-10 and Rs 11.82 Crore for FY 2010-11 on account of guarantee fees payable to GoM based on the actual payment in FY 2007-08 and FY 2008-09. Guarantee fees have been projected on the outstanding balance of loans as on the year ending date.

The Commission asked MSPGCL to clarify the basis and justification for considering the finance charges and to submit the documentary evidence for the same. In reply, MSPGCL submitted that GOM vide GR No PFC-2003/CR-134/NRG-3 dated September 15, 2003 agreed to guarantee the repayment of principal and interest payment thereon in respect of loan availed from PFC for Parli Unit 6 under scheme code 21101011 and for which MSEB/MSPGCL shall pay guarantee fee @ Rs 2 per Rs 100/- per annum. MSPGCL accordingly has projected the other financing charges for Parli Unit 6 as Rs. 13.77 Crore and Rs 11.82 Crore for FY 2009-10 and FY 2010-11, respectively, considering the interest amount and principal loan outstanding.

The Commission has therefore allowed other financing cost for FY 2009-10 and FY 2010-11 as claimed by MSPGCL as these are charges that are paid by MSPGCL to GOM for guaranteeing the loan amount availed from PFC.



#### 4.5.8. Interest on working capital

MSPGCL submitted that it has worked out the working capital requirement based on the normative parameters prescribed in the MERC Tariff Regulations 2005. The Commission, in its Order dated December 15, 2009 had considered interest rate of 12.25% for projecting the interest on working capital for FY 2009-10. MSPGCL has computed interest on working capital for FY 2009-10 at an interest rate of 12.25% in line with Commission's Order. MSPGCL has considered the Prime Lending Rate (PLR) of State Bank of India of 11.75% as on the date of filing of this Petition, for projecting the interest on working capital for FY 2010-11.

The Commission accepts the interest rates as submitted by MSPGCL for calculation of interest on working capital for FY 2009-10 and FY 2010-11. Accordingly the Commission has approved interest rate for computation of interest on working capital as 12.25% and 11.75% for FY 2009-10 and FY 2010-11.

The Interest on Working Capital as approved in the MYT Order, projected in current petition and approved by the Commission is as shown in the following table.

**Table: Interest on Working Capital for FY 2009-10 and FY 2010-11 (Rs Crore)**

Name of the Plant	FY 2009-10			FY 2010-11	
	Approved in MYT Order	MSPGCL	Approved	MSPGCL	Approved
Parli Unit 6	12.67	14.85	14.29	14.94	14.33
Paras Unit 3	14.91	14.54	13.93	13.95	13.78

#### 4.5.9. Income Tax

MSPGCL has not projected any income tax for Paras Unit 3 and Parli Unit 6 separately as the same would be considered at corporate level and recovered through tariff of existing stations.

#### 4.5.10. Non-tariff Income

MSPGCL submitted that for its Parli Unit 6, it has estimated non-tariff income in FY 2009-10 and FY 2010-11 in line with FY 2008-09 non-tariff income. MSPGCL estimated non-tariff income of Rs 2.00 Crore each in FY 2009-10 and FY 2010-11 for Parli Unit 6. Similarly, MSPGCL has estimated non-tariff income of Rs. 0.80 Crore and Rs. 0.84 Crore in FY 2009-10 and FY 2010-11 for Paras Unit 3.



The Commission has approved Non-Tariff Income as projected by MSPGCL for FY 2009-10 and FY 2010-11 for both the Units.

#### 4.6. SUMMARY OF PROVISIONAL TRUING UP FOR FY 2009-10

The summary of the ARR for Parli Unit 6 and Paras Unit 3 for FY 2009-10 is given in the table below:

*Table: Summary of Provisional Truing up for Parli Unit 6 FY 2009-10 (Rs Crore)*

Item/Description	Approved in APR Order for 2009-10			
	Approved in MYT Order	MSPGCL	Approved	Provisional Truing Up
<b>Variable Charges</b>				
Fuel Cost	207.21	240.76	234.57	27.36
Other Fuel Related	11.52	21.67	21.67	10.15
<b>Total Variable Charges</b>	<b>218.73</b>	<b>262.43</b>	<b>256.24</b>	<b>37.51</b>
<b>Annual Fixed Charges</b>				
O&M Expenses	33.13	35.54	32.95	(0.18)
Interest on Long Term	81.76	83.62	86.79	5.03
IWC	12.67	14.85	14.29	1.62
Depreciation Including	40.89	47.89	45.83	4.94
Return on Equity	44.08	65.84	54.39	10.31
Income Tax	0	0	0	-
Less:- N TI		2	2.00	2.00
<b>Total Capacity</b>	<b>212.53</b>	<b>245.75</b>	<b>232.25</b>	<b>19.72</b>
<b>Aggregate Revenue</b>	<b>431.26</b>	<b>508.18</b>	<b>488.50</b>	<b>57.24</b>

The total revenue gap for FY 2009-10 based on provisional truing up works out to Rs 57.24 Crore, which is allowed to be recovered as part of FY 2010-11 tariff.

*Table: Summary of Provisional Truing up for Paras Unit 3 FY 2009-10 (Rs Crore)*

Item/Description	Approved in MYT Order	MSPGCL	Approved	Provisional Truing Up
<b>Variable Charges</b>				
Fuel Cost	224.13	248.06	227.18	3.05
Other Fuel Related Costs	4.34	6.03	6.03	1.69



Item/Description	Approved in MYT Order	MSPGCL	Approved	Provisional Truing Up
<b>Total Variable Charges</b>	<b>228.47</b>	<b>254.09</b>	<b>233.20</b>	<b>4.73</b>
<b>Capacity Charges</b>				
O&M Expenses	33.13	35.54	32.95	(0.18)
Interest on Long Term	88.93	87.02	90.59	1.66
IWC	14.91	14.54	13.93	(0.98)
Depreciation Including	43.29	46.33	47.48	4.19
Return on Equity	40.9	55.97	55.56	14.66
Income Tax	-	0	0	-
Less:- N TI	0	0.80	0.80	0.80
<b>Total Capacity Charges</b>	<b>221.16</b>	<b>238.6</b>	<b>239.72</b>	<b>18.56</b>
<b>Aggregate Revenue</b>	<b>449.63</b>	<b>492.69</b>	<b>472.92</b>	<b>23.29</b>

The total revenue gap for FY 2009-10 based on provisional truing up works out to Rs 23.29 Crore, which is allowed to be recovered as part of FY 2010-11 tariff.

#### 4.7. FIXED COST OF GENERATION FOR FY 2010-11

The summary of Annual Fixed Charges for Parli Unit 6 and Paras Unit 3 as approved by the Commission for FY 2010-11 after adjusting for final truing up for FY 2007-08, FY 2008-09 and provisional truing up for FY 2009-10 is given in the following Table:

*Table: Station Wise Annual Fixed Charges for FY 2010-11 (Rs Crore)*

Particulars	Parli Unit 6	Paras Unit 3
Operation & Maintenance Expenses	35.27	35.27
Depreciation, including advance against depreciation	46.00	47.49
Interest on Long-term Loan Capital	78.09	80.50
Interest on Working Capital	14.33	13.78
Income Tax	-	-
Total Revenue Expenditure	173.69	177.03
Return on Equity Capital	54.59	55.57
Aggregate Revenue Requirement	228.28	232.59
Non Tariff Income	2.00	0.84
Net Aggregate Revenue Requirement	<b>226.28</b>	<b>231.75</b>



Particulars	Parli Unit 6	Paras Unit 3
Provisional Truing up for FY 2009-10	57.24	23.29
Truing up for FY 2008-09	(109.18)	(73.22)
Truing up for FY 2007-08	(1.09)	-
<b>Net AFC</b>	<b>173.25</b>	<b>181.82</b>

## 5. TARIFF OF PARLI UNIT 6 AND PARAS UNIT 3

Regulation 20.1 of the MERC Tariff Regulations, 2005 stipulates that the tariff will be determined on an annual basis, as reproduced below:

*“The Commission shall determine the tariff of a Generating Company or Licensee covered under a multi-year tariff framework for each financial year during the control period, at the commencement of such financial year, having regard to the following:*

- *The approved forecast of aggregate revenue requirement and expected revenue from tariff and charges for such financial year, including approved modifications to such forecast; and*
- *Approved gains and losses to be passed through in tariffs, following the annual performance review.”*

The Commission, in its MYT Orders, has approved the Annual Fixed Charge and parameters of variable cost for Parli Unit 6 and Paras Unit 3. The Commission further stipulated in the MYT Orders that it will determine the Tariff of Parli Unit 6 and Paras Unit 3 for each financial year during the Control Period in accordance with Regulation 20.1 above and considering the fuel prices prevalent during the financial year. In accordance with the principles of the MERC Tariff Regulations, the Commission has determined the tariff, i.e., Annual Fixed Charge as well as variable charge for Parli Unit 6 and Paras Unit 3 for FY 2010-11 in this Order.

### 5.1. TARIFF FOR THERMAL POWER GENERATING STATIONS

Regulation 28 of the MERC Tariff Regulations specifies that *“Tariff for sale of electricity from a thermal power generating station shall comprise of two parts, namely, the recovery of annual fixed charges and energy charges”*.



### 5.1.1. Approved Annual Fixed Charges

As regards the recovery of Annual Fixed Charges, Regulation 33.1.1 of the MERC Tariff Regulations, 2005, stipulates that the target availability for full recovery of annual fixed charges shall be 80 percent. The Commission hence, approves the full recovery of fixed charges during FY 2010-11 for Parli Unit 6 and Paras Unit 3 subject to achievement of availability of 80%. However, in the event of actual availability for the year, computed in accordance with the MERC Tariff Regulations, 2005 (after accounting for the unavailability of fuel), being less than that normative availability, the fixed charges shall be proportionately reduced in accordance with the MERC Tariff Regulations, 2005, while truing up the revenue requirement. The approved Station-wise Fixed Charges for Parli Unit 6 and Paras Unit 3 for FY 2010-11 are given in the following Table:

**Table: Approved Fixed Charge of MSPGCL Thermal Stations for FY 2010-11 (Rs. Crore)**

Station	Estimated by MSPGCL	Approved AFC for FY 2010-11	Net Generation (MU)	Rs/kWh
Parli Unit 6	239.99	173.25	1594	1.0867
Paras Unit 3	230.71	181.82	1594	1.1404

The variation in Annual Fixed Charges as approved by the Commission as compared to Annual Fixed Charges as estimated by MSPGCL is mainly on account of following reasons:

- Adjustment of truing up amount for FY 2007-08 and FY 2008-09 for Parli Unit 6, and truing up amount for FY 2008-09 for Paras Unit 3.
- Adjustment against the provisional Truing up Amount for FY 2009-10.
- Reduction in the return on equity as claimed by MSPGCL.
- Dis-allowance of Advance Against Depreciation.

### 5.1.2. Approved Energy Charge

The rate of energy charge (ex-bus) for FY 2010-11 has been approved for each Unit, based on approved operational parameters and assumed fuel prices for FY 2010-11 . Any variations in the fuel price shall be dealt with under the FAC mechanism. The following Table details the tariff to be charged by MSPGCL for sale of power from Parli Unit 6 and Paras Unit 3 for FY 2010-11:



**Table: Approved Energy Charges & Total Tariff of Parli Unit. 6 and Paras Unit 3 for  
FY 2010-11 (Rs/KWh)**

S.No	Station	Estimated Energy Charges (Rs/kWh)	Approved Energy Charge per unit (Rs/kWh)	Approved Fixed Cost per unit	Approved Total Tariff
1	Parli Unit 6	1.8045	1.7151	1.0867	2.8018
2	Paras Unit 3	1.6365	1.5788	1.1404	2.7192

The variation in Energy Charge per unit as approved by the Commission as compared to Energy Charges estimated by MSPGCL is mainly on account of following reasons:

- The Commission has considered the performance parameters as per the norms based on MERC Tariff Regulations, 2005.
- The Commission has considered the fuel costs and calorific value equivalent to the average fuel cost and calorific value for the period April 2010 to September 2010 and has not factored in any escalation in fuel prices.

The tariff determined in this Order applies to sale of electricity to distribution licensee (MSEDCL) during the FY 2009 – 10 and FY 2010 - 11.

Sd/-  
(Vijay L. Sonavane)  
Member

Sd/-  
(V.P. Raja)  
Chairman



(P. B. Patil)  
Registrar, MERC



APPENDIX 1

List of Participants in Technical Validation Session held on August 24, 2010

S.No.	Name
1	Shri Musale Ravi C.
2	Shri Balwa Amit R
3	Shri M. S. Tople
4	Shri P. S. Vibhute
5	Shri N.J. Padalkar
6	Shri L.N. Ambekar
7	Shri S.K. Labde
8	Shri Anil V. Kale
9	Shri Himanshu Mishra
10	Shri S. V. Bedekar
11	Shri R. R. Kulkarni
12	Shri S. S Jadhav
14	Shri S. H. Dongre
15	Shri M.R. Shekar
16	Shri J. K. Srinivasan
17	Shri S M Madan
18	Shri M. R. Deshmukh
19	Shri Vijay Singh
20	Shri S. Gehani





APPENDIX 2

:List of Participants in Public Hearing held on December 16, 2010

S.No.	Name
1	Shri J.K Srinivasan
2	Shri G.J. Girase
3	Shri C.S.Thoture
4	Shri S.S. Jadhav
5	Shri N.J. Padalkar
6	Shri R.V. Taskar
7	Shri P.P Andurkar
8	Shri Bhushan Rastogi
9	Shri R.P Durairajan
10	Shri G.S. Puranik
11	Shri V.M. Kakkad
12	Shri M.M Muthal
14	Shri S. Khakhanis
15	Shri R.R Kulkarni
16	Shri Sacio Rego
17	Shri Ramandeep Singh
18	Shri S. V. Bedekar
19	Shri S. B. Waghmare
20	Shri A. R Nandanwar
21	Shri M. R Deshmukh
22	Shri. Himanshu Agarwal
23	Shri. Sanjiv Kumar Singh
<b>Consumer Representatives</b>	
01	Shri Shantanu Dixit
02	Shri Shrish Deshpande
03	Dr. S. L. Patil
04	Dr. Ashok Pendse
05	R. B. Goenka
06	Shri Sandeep N Ohri
07	Shri N. Ponarathanam
08	Shri Rakshpal Abrol

