

**Before the**  
**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**  
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**Case No. 67 of 2006**

**IN THE MATTER OF**  
**Determination of Annual Revenue Requirement (ARR) of Maharashtra State**  
**Electricity Transmission Company Ltd. (MSETCL) for the Control Period FY**  
**2007-08 to FY 2009-10**

**Dr. Pramod Deo, Chairman**  
**Shri A. Velayutham, Member**  
**Shri S. B. Kulkarni, Member**

**ORDER**

**Dated : April 2, 2007**

Upon directions from the Maharashtra Electricity Regulatory Commission (Commission), Maharashtra State Electricity Transmission Company Limited (MSETCL), submitted its application for approval of Annual Revenue Requirement and Multi Year Tariff Petition for the first Control Period from FY 2007-08 to FY 2009-10, under affidavit. 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 MSETCL, all the objections, responses of the MSETCL, issues raised during the Public Hearing, and all other relevant material, determines the ARR for transmission of electricity by the Maharashtra State Electricity Transmission Company Limited as under.



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**List of Abbreviations used in the ARR and MYT Order**

ABT	Availability Based Tariff
A&G	Administration & General Expenses
AAD	Advance Against Depreciation
ARR	Annual Revenue Requirement
BEST	Brihan-mumbai Electric Supply & Transport Undertaking
CAGR	Compounded Annual Growth Rate
CERC	Central Electricity Regulatory Commission
Commission/MERC	Maharashtra Electricity Regulatory Commission
CPI	Consumer Price Index
CPRI	Central Power Research Institute
Cr	Crore
DA	Dearness Allowance
EA 2003/ Act	Electricity Act, 2003
EHV	Extra High Voltage
FY	Financial Year
GFA	Gross Fixed Assets
GoM	Government of Maharashtra
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
kV	kilo Volt
kW	kilo Watt
MoP	Ministry of Power
MSEB	Maharashtra State Electricity Board
MSETCL	Maharashtra State Electricity Transmission Company Limited
MSEDCL	Maharashtra State Electricity Distribution Company Limited



MSPGCL	Maharashtra State Power Generation Company Limited
MU	Million Units (MkWh)
MVA	Mega-Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NFA	Net Fixed Assets
R&M	Repairs & Maintenance
REL	Reliance Energy Limited
RoE	Return on Equity
Rs.	Indian Rupees
SLDC	State Load Despatch Centre
STU	State Transmission Utility
TBIA	Thane Belapur Industries Association
TPC	The Tata Power Company Limited
Y-o-Y	Year-on-Year



## **1 BACKGROUND AND BRIEF HISTORY:**

The Maharashtra State Electricity Transmission Company Limited (MSETCL or Maha TRANSCO) is a Company formed under the Government of Maharashtra General Resolution No. ELA-1003/P.K.8588/Bhag-2/Urja-5 Dated January 24, 2005 with effect from June 6, 2005 according to the provisions envisaged in the Electricity Act 2003. The MSETCL has been registered with the Registrar of Companies, Mumbai on May 31, 2005 bearing certificate U40109 MH 2005 PLC 153646 under the Companies Act, 1956.

The provisional Transfer Scheme was notified under Section 131(5)(g) of the EA 2003 on June 6, 2005, which resulted in the creation of following four successor companies and MSEB Residual Company, to the erstwhile Maharashtra State Electricity Board (MSEB), namely,

- § MSEB Holding Company Ltd.,
- § Maharashtra State Power Generation Company Ltd.,
- § Maharashtra State Electricity Transmission Company Ltd. and
- § Maharashtra State Electricity Distribution Company Ltd.

MSETCL is in the business of transmission of electricity and has also been notified as the State Transmission Utility (STU) as per Section 39 of the EA 2003.

### **1.1 MULTI YEAR TARIFF FRAMEWORK**

Regulation 12.1 under Part C of the Maharashtra Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005 notified on 26th August 2005, stipulates that the Commission shall determine the tariff for following matters under a multi-year tariff framework with effect from 1st April, 2006:

- a) Supply of Electricity by a Generating Company to a Distribution Licensee
- b) Intra-State transmission of Electricity
- c) Wheeling of Electricity
- d) Retail Sale of Electricity

Regulation No. 14.1 under Part C of Terms and Conditions of Tariff Regulations states

*“The applicant shall submit a forecast of his aggregate revenue requirement and expected revenue from tariff and charges for the approval of the Commission for each financial year within a control*



*period of five (5) financial years. Provided that for the first application made to the Commission under this Part, the control period shall be three (3) financial years i.e. April 1, 2006 to March 31, 2009.”*

The Commission, considering the requests made by the Utilities, vide its Order dated December 20, 2005 in the matter of Applicability of Multi Year Tariff Framework granted exemption to all the Utilities in Maharashtra from implementation of MYT framework for FY 2006-07. The Commission, in its Order, stated that the Commission would determine the tariff under a multi year tariff framework with effect from April 1, 2007 instead of April 1, 2006 as stipulated in MERC (Terms and Conditions of Tariff) Regulations, 2005 and accordingly, the first Control Period for MYT framework shall be the three financial years from April 1, 2007 to March 31, 2010.

Thereafter, the Commission, in exercise of the power vested in it under Section 61 and 62 of the Electricity Act, 2003, and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by MSETCL, all the objections, responses of MSETCL, issues raised during the Public Hearing, and all other relevant material, issued the Order on the ARR Petition of MSETCL for FY 2006-07 on June 28, 2006.

MSETCL filed a review Petition on the above said Commission's Order dated June 28, 2006, with the Commission. The Commission disposed the Review Petition through its Order dated October 19, 2006, in Case 21 of 2006.

The Commission had directed MSETCL to submit the MYT Petition for the first Control Period by November 30, 2006, so that the Commission could issue the Order before the commencement of the next financial year, such that the revised tariffs are applicable for the entire financial year. However, MSETCL asked for additional time for submission citing the delay in undertaking audit of its accounts. The Commission did not grant the additional time, and directed MSETCL to submit the MYT Petition immediately.



## **1.2 MULTI YEAR TARIFF PETITIONS**

MSETCL filed an application for approval of Annual Revenue Requirement (ARR) and Multi Year Tariff for the first Control Period from FY 2007-08 to FY 2009-10, on January 3, 2007, under affidavit, before the Commission, in accordance with the provisions of the Electricity Act, 2003, on the basis of un-audited accounts.

The Commission observed certain inconsistencies and data gaps in the ARR and MYT Petition submitted by MSETCL and directed MSETCL to submit additional data and clarifications, so that it could conduct a Technical Validation session. Thereafter, MSETCL submitted clarifications and additional data vide its letter dated January 20, 2007.

The Commission held a Technical Validation Session in the presence of authorized consumer representatives and others on January 25, 2007 (the list of persons who attended the Technical Validation Session is given in **Appendix 1**). During the Technical Validation session, several discrepancies and data inconsistencies/gaps were identified and the Commission directed MSETCL to submit the additional data and clarifications, to enable the Commission to admit the MYT Petition.

MSETCL submitted the additional data and clarifications along with its revised MYT Petition on February 2, 2007, under affidavit. The revised ARR and MYT Petition was admitted by the Commission on February 7, 2007, and MSETCL was directed by the Commission to issue a Public Notice in leading newspapers, and to make copies of its Petition available at its offices, to enable interested stakeholders to submit their comments and objections to MSETCL's ARR and MYT Petition.

Subsequently, based on the instructions from the Commission, a Public Notice appeared in newspapers on February 8 and 9, 2007. The Public Notice was published in the Loksatta, Maharashtra Times and Lokmat (in Marathi); and in Indian Express, Times of India, and DNA (in English).

Copies of MSETCL's Petition and its Executive Summary (both in English and Marathi) were made available for inspection/purchase to the public at MSETCL's Head Office and 5 Zonal Offices and on MSETCL's website ([www.mahatransco.in](http://www.mahatransco.in)). The last date for filing the written objections was fixed as February 27, 2007. The Public Notice specified that the suggestions/objections, either in English or Marathi, may be filed in the form of affidavits to the Commission along with proof of service on the applicant M/s MSETCL. It was specifically stated in the Public Notice that if any objector wanted to be heard in person, the Commission would give him an opportunity at the Public Hearing and others were also free to attend the same. MSETCL was directed to reply to the party's suggestion/objection within one week of



the receipt of the same but not later than February 27, 2007, for all the objections and comments/suggestions received till February 23, 2007. The stakeholders were allowed to submit their rejoinders on replies provided by MSETCL either during the public hearing or latest by March 5, 2007.

The Commission received written objections and comments regarding the ARR of MSETCL, capital expenditure, expenses of MSETCL and some other issues. The Commission received objections/ comments from a total of three (3) objectors. The objectors, who indicated that they would like to be heard in person, were called for the Public Hearing. The Public Hearing was held on February 28, 2007, at 15:00 hours, at Centrum Hall, Centre I, World Trade Centre, Mumbai. The list of persons who attended the Public Hearing is given in **Appendix 2**.

The Commission directed MSETCL to submit additional data and clarifications with respect to the ARR and MYT Petition from time to time, which were submitted by MSETCL.

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.

The Commission, after taking into consideration all the objections, including the submissions and responses of the MSETCL, issues raised during the Public Hearing, and all other relevant material, hereby issues the following Order.

### **1.3 ORGANISATION OF THE ORDER**

The Order of the Commission regarding the determination of ARR over the first Control Period from FY 2007-08 to FY 2009-10 is broadly structured as follows:

**Section 1** of the Order, given in the previous pages, consists of a brief history of the ARR determination process and the subsequent quasi-judicial process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms is also appended.

**Section 2** of the Order lists out the various objections raised by the objectors in writing as well as during the Public Hearing before the Commission. They have been broadly categorized into five (5) issues. The various objections have been summarized, followed by the response of MSETCL and the rulings of the Commission on each of the points.



**Section 3** of the Order comprises the Commission's analysis of the truing up of MSETCL's actual revenue and expenses for FY 2005-06 and FY 2006-07, vis-à-vis the Commission's Order on ARR for FY 2005-06 and FY 2006-07.

**Section 4** of the Order comprises the Commission's analysis of MSETCL over FY 2005-06 and FY 2006-07 and the performance trajectory approved by the Commission for the first Control Period from FY 2007-08 to FY 2009-10. In this Chapter, the Commission has also elaborated on the classification of expenses as controllable and uncontrollable expenses, and the mechanism for sharing the losses and gains arising out of variation in the licensee's performance vis-à-vis the targeted performance.

**Section 5** of the Order comprises the Commission's analysis and its decisions on MSETCL's ARR for the first Control Period from FY 2007-08 to FY 2009-10.



**List of Abbreviations used in the ARR and MYT Order**

ABT	Availability Based Tariff
A&G	Administration & General Expenses
AAD	Advance Against Depreciation
ARR	Annual Revenue Requirement
BEST	Brihan-mumbai Electric Supply & Transport Undertaking
CAGR	Compounded Annual Growth Rate
CERC	Central Electricity Regulatory Commission
Commission/MERC	Maharashtra Electricity Regulatory Commission
CPI	Consumer Price Index
CPRI	Central Power Research Institute
Cr	Crore
DA	Dearness Allowance
EA 2003/ Act	Electricity Act, 2003
EHV	Extra High Voltage
FY	Financial Year
GFA	Gross Fixed Assets
GoM	Government of Maharashtra
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
kV	kilo Volt
kW	kilo Watt
MoP	Ministry of Power
MSEB	Maharashtra State Electricity Board
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MSPGCL	Maharashtra State Power Generation Company Limited
MU	Million Units (MkWh)
MVA	Mega-Volt Ampere
MW	Mega Watt
MYT	Multi Year Tariff
NFA	Net Fixed Assets
R&M	Repairs & Maintenance
REL	Reliance Energy Limited
RoE	Return on Equity
Rs.	Indian Rupees
SLDC	State Load Despatch Centre
STU	State Transmission Utility
TBIA	Thane Belapur Industries Association
TPC	The Tata Power Company Limited
Y-o-Y	Year-on-Year



## **2 OBJECTIONS RECEIVED, MSETCL'S RESPONSE AND THE COMMISSION'S RULING**

### **2.1 TRANSMISSION CHARGES**

BEST submitted that MSETCL has proposed an increase in the capital expenditure over the first Control Period, and as per the transmission pricing framework, BEST being an InSTS user, it would be required to bear the consequent increase in the transmission charges. In view of the above, BEST requested the Commission that any increase in transmission charges on this account should also be incorporated in BEST's MYT Order.

#### **MSETCL's Response**

MSETCL has not provided any specific reply on this aspect.

#### **Commission's Ruling**

The Commission will consider BEST's share of transmission charges based on the pooled transmission cost to be determined on the basis of the approved ARR of MSETCL, REL-T and TPC-T over the first Control Period, and BEST's share of coincident peak demand, while determining the ARR of BEST for the first Control Period.

### **2.2 EXPENDITURE**

#### **2.2.1 O & M Expenses and other expenses**

Buldhana District Seva Samithi (BDSS) submitted that MSETCL has projected a very steep increase in the O&M Expenses over the Control Period, as compared to the O&M expenses approved by the Commission for FY 2005-06. BDSS requested the Commission to undertake a detailed analysis of the O&M expenses before approving the same.

During the Public Hearing, Prayas submitted that MSETCL has projected a steep increase in O&M expenses, by benchmarking itself with CERC norms. Prayas suggested that the O&M norms of MSETCL should be compared with MSETCL's own O&M expenses in the past, rather than comparing with CERC norms or other Utilities.



**MSETCL's Response**

MSETCL stated that the O&M expenses has been considered on 'per bay norm' and 'per circuit kilometer norm' on the basis of revised estimates of O&M expenditure for FY 2006-07, comprising of employee expenses, A&G expenses, and Repair and Maintenance expenses. MSETCL submitted that for the MYT period, a 10% increase in O&M expenses has been proposed on the per bay norm and per circuit kilometer norm, after accounting for the projected increase in the number of bays and line length in ckt km.

MSETCL clarified that the projection of O&M expenditure of MSETCL has not been benchmarked with CERC norms. CERC norms have only been compared with the norms considered for MSETCL, to highlight the fact that the norms considered for MSETCL during the current year and during the MYT period are still much lower than the norms allowed for CERC even during FY 2003-04. MSETCL has added that it expects to spend much more on R&M during FY 2006-07, as per the detailed plan submitted to the Commission. Further, even after considering the higher R&M expenses (compared to previous years) for computing the base-year norms, the norms of MSETCL are much lower than that of CERC norms.

**Commission's Ruling**

The Commission's analysis for determination of O&M expenses over the first Control Period has been elaborated in Chapter V of this Order.

**2.3 CAPITAL EXPENDITURE**

Prayas submitted that MSETCL has proposed many capital investment projects for transmission system strengthening over the next 3 years, amounting to a total capital expenditure of about Rs 8500 Crore over the first Control Period. Prayas submitted that it was essential to scrutinize these projects in detail. Further, due to the huge capital expenditure projected by MSETCL, there will be additional burden of 40-45 paise/unit on all the consumers across the State of Maharashtra. Hence, Prayas requested the Commission to direct MSETCL to submit scheme wise details for the projected capital expenditure.



**MSETCL's Response**

MSETCL replied that the capital expenditure proposed over the first Control Period in the MYT Petition was being undertaken with the objective of creating a robust and good transmission system. MSETCL's capital expenditure plan has been derived after due consideration to the expected demand and to cater to the evacuation of the generation planned to be added within the State. Also required redundancy in the system has been considered in this plan to maintain a stable and reliable transmission network within the State. MSETCL submitted that it has already submitted the scheme-wise details of FY 2006-07 to the Commission, and the scheme-wise details for FY 2007-08, FY 2008-09 and FY 2009-10 are being submitted to the Commission separately.

MSETCL submitted that it was not in a position to comment on the impact of 40 to 50 paise/kWh assessed by Prayas, in the absence of back-up computations. MSETCL added that impact of capital expenditure on retail tariff is a matter that should be dealt with, at the time of determination of tariff of distribution companies. Also, it should be appreciated that the Indian economy is facing inflationary pressures, and all input costs including electricity will have a high inflationary tendency. Hence, the Commission is requested to consider the capital expenditure requirement on the basis of the requirement of such expenditure rather than considering the impact on retail tariff.

**Commission's Ruling**

The Commission's analysis for determination of capital expenditure to be considered over the first Control Period, the related capitalisation, and the consequent impact on interest expenses, depreciation expenditure, and RoE, have been elaborated in Chapter V of this Order.

**2.4 TRANSPARENCY**

Maharashtra Mofussil Mills Association (MMMA) submitted that MSETCL should be benchmarked with TPC. MMMA stated that the price of the fuel used by MSETCL should be benchmarked by that being used by TPC after bringing them on a common platform of calorific value and heat rate of coal. By this method, the weighted average price of fuel used by TPC adjusted for calorific value and heat rate of coal can be determined, for comparison with the price of coal considered by MSETCL. MMMA observed that TPC's tariff of 374 paise/unit considers an average weighted price of Rs



5327/- per MT of fuel having calorific value and heat rate as coal. Hence, when the fuel price is Rs 2840 per MT having the same calorific value and heat rate the tariff should be 47% lower, i.e., it should be 198 paise/unit. However, tariff has been fixed as 396 paise/unit, i.e., 100% higher.

### **MSETCL's Response**

MSETCL has submitted that this objection is not related to the Petition filed by MSETCL.

## **2.5 METERING**

Prayas submitted during the Public Hearing that the process of installing interface meters at every voltage level should be accelerated and completed as early as possible. Further, real time data on system availability should be made available on MSETCL's website.

### **MSETCL's Response**

MSETCL replied that metering is provided at more than 2000 locations and the entire process of metering all the interface points will be completed by September 2007. MSETCL added that presently, 400 kV system network diagram with real time updates of system loading at every 10 minutes interval, is displayed on the website of SLDC "[www.sldcmsebindia.com](http://www.sldcmsebindia.com)" and website of MSETCL "[www.mahatransco.in](http://www.mahatransco.in)" along with generation exchange and demand overview for the State. Further, daily system performance report will also be made available on these websites after completion of the ABT metering programme.

### **Commission's Ruling**

The Commission is concerned about the slippages in the metering schedule as reported till date, and directs MSETCL to take all the necessary steps to ensure that the entire interface metering, including the interface points for the Mumbai licensees, is completed not later than September 2007.

## **2.6 OTHER OBJECTIONS / ISSUES**

### **2.6.1 Submission of petition and regulatory process**

MMMA submitted that the utilities need to submit their Petitions as per the time limit prescribed by the Commission. For instance, the licensees submitted their ARR



Petitions for FY 2006-07 in March/April 2006. MMMA added that the time limit of three weeks given by the Commission for submitting comments and suggestions from the public is inadequate.

### **MSETCL's Response**

MSETCL replied that the ARR Petition for FY 2006-07 was first filed on February 13, 2006 as against the prescribed date of November 30, 2005 as per Regulations. In this regard, after considering the applications of all utilities/licensees on the grounds mentioned therein, the Commission granted extension to file first ARR petition for FY 2006-07 upto February 10, 2006. Accordingly, MSETCL submitted the ARR Petition for FY 2006-07 on February 13, 2006.

### **Commission's Ruling**

As per the EA 2003, the Commission is required to issue the Tariff Order within 120 days of receipt of the Petition. Hence, the Commission has stipulated November 30 of the previous year as the last date for submission of the ARR and Tariff Petitions. The Commission has been insisting on timely submission of the ARR and MYT Petitions by the licensees, so that the Orders can be issued before the commencement of the next financial year, and can be operative for the complete financial year. However, the Utilities have been delaying the submission of the Petitions on some grounds or the other, which is being viewed seriously by the Commission.

As regards the time of three weeks given to the public for submitting their comments and suggestions, the same is in accordance with the MERC (Conduct of Business) Regulations, 2004. Wherever possible, the Commission does give additional time to the public for submission of their comments and suggestions. However, given the urgency of this matter, and the need for issuing this Order before the commencement of the financial year, the Commission could not give additional time for submission of comments and suggestions.

### **2.6.2 Public Hearing**

MMMA stated that the Public Hearing has been scheduled for February 28, 2007, which is also the date for presentation of the Union Budget to the Parliament. Hence, they requested the Commission that Public Hearing should be avoided on this date.

### **MSETCL's Response**



MSETCL replied that the date of Public Hearing is as per the schedule specified by the Commission.

### **Commission's Ruling**

The Petitioner should appreciate that the Commission is working on a very tight schedule and Hearings have been scheduled on several days, as all the MYT Petitions are being processed simultaneously. Hence, the Hearing for MSETCL has been scheduled on the available date.

### **2.6.3 Holistic view of three Companies**

MMMA submitted that it is difficult for the common man to comment on the submissions of Generation, Transmission and Distribution Companies separately. Hence, they requested the Commission that the three Utilities should be benchmarked against well-managed companies. Moreover, the Government should give necessary funds to bridge the revenue gap, which could be raised by issue of bonds with Government guarantee, for the three utilities to remain operational.

### **MSETCL's Response**

MSETCL has not provided any specific reply on this aspect.

### **Commission's Ruling**

The Commission has critically analysed the expenses projected by MSETCL, before approving the same. The detailed analysis is given in Chapter V of this Order. The issue of bonds by the State Government to fund the revenue gap does not fall within the Commission's jurisdiction.

### **2.6.4 Benchmarks**

MMMA has requested the Commission to specify efficiency levels and reduction in cost over the first Control Period, as well as the time limit for achieving the benchmarked norms.

### **MSETCL's Response**

MSETCL has not provided any specific reply on this aspect.



**Commission's Ruling**

The Commission has specified the performance trajectory and the movement of costs over the Control Period, in Chapter IV and V of this Order.

**2.6.5 Vision**

During the Public Hearing, Thane Belapur Industries Association (TBIA) stated that MSETCL must make correct demand projections in line with the other economic parameters of the State, as MSETCL's network should be geared up to meet that demand.

**MSETCL's Response**

MSETCL submitted that it appreciates the view that MSETCL needs to augment and build up its transmission network to cater to the future demand, which is expected to rise very sharply in the coming years. The capital expenditure programme submitted by MSETCL addresses all such needs and MSETCL should be allowed to implement and maintain a stable and reliable transmission network in Maharashtra.

**Commission's Ruling**

The Commission is approving the capital expenditure on the basis of the scheme-wise DPRs being submitted by MSETCL, and MSETCL is expected to keep these aspects in mind while designing its capital expenditure schemes and the prioritisation of the schemes.

**2.6.6 Recovery of ARR**

Prayas suggested an innovative mechanism of setting milestones linked to ARR, such that the components of the ARR are allowed only if milestones are achieved and the Commission's directives are met.

**MSETCL's Response**

MSETCL submitted that though it appreciated the innovative thinking of Prayas in this matter, radical innovations may be difficult to implement. Further, the innovative methodology suggested by Prayas will unnecessarily complicate the payment mechanism for transmission charges, and may cause fund-flow crisis for MSETCL. MSETCL suggested that the Commission must consider the implementability of any innovative method before introducing it. MSETCL and all other utilities created out



of MSEB will take some time to cope up with the transitional issues that inevitably confronts them. Hence, introducing such an innovative method may actually become counterproductive rather than serving the intended purpose.

**Commission's Ruling**

The Commission appreciates Prayas' suggestion in this matter and the objective with which this suggestion has been given. The compliance of directives by the Utilities have been shoddy in the past, with MSETCL also reporting slippages in the schedule of metering of interface points. However, some more thought has to be given to this suggestion and the Commission has decided not to implement this suggestion for this Order.



### 3 TRUING UP FOR FY 2005-06

In its MYT Petition for the first Control Period from FY 2007-08 to FY 2009-10 submitted on January 3, 2007, MSETCL sought truing up of its expenses on the basis of revised estimates for FY 2006-07. However, MSETCL did not submit any truing up details for FY 2005-06. The Commission directed MSETCL to submit the details of the truing up of the actual expenses and revenue incurred in FY 2005-06 vis-à-vis the expenses approved by the Commission for FY 2005-06 in its Tariff Order for MSETCL for FY 2006-07 in Case No. 49 of 2005 issued on June 28, 2006, before the Technical Validation session. In reply, MSETCL submitted that it would be able to submit the same on February 15, 2007, once its audited accounts for FY 2005-06 were finalised. However, MSETCL submitted neither the audited accounts for FY 2005-06, nor the truing up requirement for FY 2005-06, before the Technical Validation session held on January 25, 2007.

During the Technical Validation session, on being queried by the Commission regarding the audited accounts and the truing up for FY 2005-06, MSETCL committed to submit the same by January 31, 2007. MSETCL submitted the details of truing up of expenses and revenue for FY 2005-06 along with its revised MYT Petition on February 2, 2007. MSETCL submitted that the truing up was based on the limited review accounts of MSETCL for the period from April 1, 2005 to June 5, 2005 (before MSETCL came into existence) and the audited accounts for the period June 6, 2005 to March 31, 2006. MSETCL requested that since its entire ARR for FY 2005-06 was billed to MSEDCL, the effect of truing up for FY 2005-06 should be adjusted with MSEDCL.

For the purpose of determining the truing up requirement for FY 2005-06, the Commission analysed the actual expenditure on the basis of the audited accounts of MSETCL. MSETCL was incorporated as a separate legal entity with effect from June 6, 2005 as per the modified Transfer Scheme. For truing up, the Commission has taken the sum of revenue expenses and income for the period April 1, 2005 to June 5, 2005, as per allocations to MSETCL (for its share of revenue expenses and income in the erstwhile MSEB) and for the period June 6, 2005 to March 31, 2006, as per the audited accounts of MSETCL.



The erstwhile MSEB legally existed till June 5, 2005, and thereafter was unbundled into different utilities, namely Maharashtra State Power Generation Company Limited (MSPGCL), Maharashtra State Electricity Transmission Company Limited (MSETCL), Maharashtra State Electricity Distribution Company Limited (MSEDCL), and MSEB Holding Company Limited (MSEB-HCL). There is also a MSEB Residual Company. The audited Financials of the erstwhile MSEB for the period from April 1, 2005 to June 5, 2005 were submitted to the Commission by the Companies. MSPGCL and MSEDCL also submitted their limited review accounts for the period April 1, 2005 to June 5, 2005.

Based on its analysis of the submissions made by the three Companies, viz., MSETCL, MSPGCL and MSEDCL, the Commission noted that there were differences in the manner and basis of allocation of revenue expenses between MSETCL, MSPGCL and MSEDCL, and also inter-Company adjustments had been undertaken subsequent to submission of the Limited Review Accounts to the Commission. The Commission hence, decided that in order to undertake the truing up of expenses and revenue for FY 2005-06, the allocation of revenue accounts for the period April 1, 2005 to June 5, 2005 should be jointly reconciled by the successor Companies. The Commission directed the three Companies to submit jointly reconciled accounts for this period, such that the sum of parts (including MSEB Holding Co. and MSEB Residual Company) matched with the audited financials of erstwhile MSEB as a whole. The Commission also directed the Companies to submit details of tranche-wise loans matching with the loan portfolio assigned as per the modified Transfer Scheme, and details of apportionment of carried forward unabsorbed business losses and unabsorbed depreciation, as per Income Tax Provisions.

### **3.1 OPERATION & MAINTENANCE EXPENSES**

Operation & Maintenance expenses comprise employee expenses, A&G expenses and Repair & Maintenance expenses, as discussed below:

#### **3.1.1 Employee Expenses**

The Commission had approved net employee expenses of Rs. 289.66 Crore for FY 2005-06, in its Order on ARR for FY 2006-07, based on the CAGR in employee expenses in last 5 years. The increase in employee expenses was allowed by the Commission for increase in components of salary of the existing employees, and not



for additional employees. The Commission projected the capitalisation of the employee expenses at the average capitalization rate observed in the past three years (for employee expenses and administration and general expenses for MSEB as a whole).

MSETCL submitted that the actual gross employee expenditure in FY 2005-06 was higher, at Rs. 342.76 Crore and the capitalization rate was also higher @ 21.68%, as against 8% considered by the Commission, with the result that the actual net Employee Expenses amounted to Rs. 268.4 Crore.

The Commission observes that the main reason for increase in gross employee expenses was due to increase in terminal benefits, which amounted to Rs. 98 Crore, comprising provision for gratuity based on actuarial valuation of Rs.59.9 Crore, of which Rs.31.9 Crore was provided on 5<sup>th</sup> June 2005, the date of the Transfer Scheme. MSETCL has submitted that the reason for such a huge impact on the liability on account of Gratuity was due to the wage revision. PF contribution of Rs. 27.9 Crore and Leave Encashment of Rs. 8.13 Crore, are also included in the terminal benefits.

The Commission has accepted the actual employee expenditure in FY 2005-06, as it is lower than the employee expenditure approved in the Tariff Order. Fringe Benefit Taxes (FBT) amounting to Rs. 0.72 Crore has been treated as an element of Employee Expenses and has been considered for truing up under this head. The employee expenditure considered by the Commission under the truing up exercise is given in the Table below:

(Rs. Crore)

Particulars	Order	Actual	Approved for Truing up
Gross Employee Expenses	315	343	343
Capitalisation	25	74	74
Net Employee Expenses	290	268	268
Add: Fringe Benefit taxes		1	1
<b>Total Employee Expenses</b>	<b>290</b>	<b>269</b>	<b>269</b>



### **3.1.2 Administration & General Expenses:**

The Commission had approved net A&G expenses of Rs. 25.08 Crore for FY 2005-06, in its Order on ARR for FY 2006-07, by considering a year-on-year (YoY) increase of 4.21% over the A&G expenses as approved by the Commission in its earlier Tariff Order for FY 2003-04 for erstwhile MSEB. The Commission projected the capitalisation of A&G expenses at the average capitalization rate observed in the past three years (for employee expenses and administration and general expenses for MSEB as a whole).

MSETCL submitted that the actual gross A&G expenditure in FY 2005-06 was higher, at Rs. 37.9 Crore and the capitalization rate was also higher @ 21.8%, as against 8% considered by the Commission, with the result that the actual net A&G Expenses amounted to Rs. 29.7 Crore.

As regards A&G Expenses, the Commission has maintained that the A&G expenses can and should be controlled and has approved the expenses based on the principle of reasonable year-on-year increase. The A&G expenses are normative and cannot be passed on to consumers at actuals. Accordingly, the Commission has retained the net A&G expenses for FY 2005-06 at the level approved in the Tariff Order for FY 2006-07, i.e., Rs. 25.1 crore.

### **3.1.3 Repairs & Maintenance Expenses**

The Commission had approved net R&M expenses of Rs. 60.80 Crore for FY 2005-06, in its Order on ARR for FY 2006-07, by taking into account the normative levels of R&M expenses.

MSETCL submitted that the actual net R&M expenditure in FY 2005-06 was higher, at Rs. 81.2 Crore, and reasoned that the actual R&M expenses being higher than that approved by the Commission is a reflection of MSETCL's effort of spending adequately in maintaining its networks, which is in line with the Commission's acceptance of the need for higher R&M expenses on MSETCL's network. MSETCL added that the total O&M expenses of Rs. 379.3 crore is in line with the O&M expenses of Rs. 375.55 crore approved by the Commission in the Tariff Order of MSETCL for FY 2005-06. MSETCL submitted that the actual R&M expenses incurred by MSETCL in FY 2005-06 should hence be trued up.



The Commission has accepted the actual R&M expenses of Rs. 81.2 crore incurred in FY 2005-06, since the actual R&M expenses as a percentage of Opening GFA is 0.98%, which is reasonable.

### **3.2 DEPRECIATION**

The Commission had approved depreciation expenditure of Rs. 498.09 Crore in FY 2005-06, by considering the average depreciation rate for the last 3 years, which came to 5.99% of the Opening GFA. MSETCL has submitted that the actual depreciation as per audited accounts is Rs. 473.94 Crore, which works out to 5.71% of GFA. The Commission has accepted the actual depreciation expenditure in FY 2005-06, as it is lower than the depreciation expenditure approved in the Tariff Order.

### **3.3 OTHER DEBITS**

MSETCL has sought truing up of certain other debits for FY 2005-06 in its Petition, as detailed in the Table below:

(Rs. Crore)

Sl	Particulars	Actual
1	Exchange Variation	1.09
2	Fringe Benefit Tax (FBT)	0.72
3	Material Cost Variation	2.68
	<b>Total</b>	<b>4.49</b>

The Commission is of the opinion that Fringe Benefit Taxes (FBT) are necessarily a part of Employee Costs and has hence, considered FBT while truing up employee expenses for FY 2005-06, as discussed earlier. Material cost variation is a new head of expenditure being sought by MSETCL under truing up. The Commission is of the view that material cost variation is an accounting adjustment and not a real expense, and hence, has not considered the same for truing up. The Commission had considered loss on foreign exchange variation as Rs. (0.28) crore, based on MSETCL's projections of the same in its ARR Petition for FY 2005-06. As the actual forex variation has been reported as Rs. 1.09 crore in the audited accounts, the same has been approved by the Commission under the truing up exercise. Thus, the amount approved under other debits is Rs. 1.09 crore.



### 3.4 INTEREST & FINANCING CHARGES

The Commission had approved interest expense of Rs. 308.58 Crore for FY 2005-06, after making adjustments such as disallowing DPC loan, allowing additional loans only to the extent of capitalization of fixed assets, adjustments for repayment in case of loans disallowed, etc, and considering the average interest rate as given in MSETCL's ARR Petition. The interest expenditure was computed by applying the average interest rate for the year on the average of opening and closing loan balances for the year, and considering the rate of capitalization for interest expenses as projected by MSETCL.

The Commission has analysed actual interest expenditure as per audited accounts on the basis of the jointly reconciled accounts for the period from April 1, 2005 to June 5, 2005 and audited statements of MSETCL for the remaining period from June 6, 2005 to March 31, 2006. Interest on State Government Loans to the extent of Rs.23.14 Crore has been allocated to MSETCL as per the jointly reconciled accounts, which has been considered for truing up. Actual interest expenditure has been significantly lower than that approved by the Commission in its Order, due to the reallocation of Private Bonds of Rs.559 Crore from MSETCL to MSEB Residual Company, and reallocation of NCDs of Rs.96 Crore and Short term Loans of Rs.185 Crore from MSETCL to MSPGCL.

Analysis of the audited loan portfolio for FY 2005-06 shows that the average interest rate has been lower at 10.18%, as compared to 10.48% considered by the Commission in the Order on ARR for FY 2006-07, as shown below:

(Rs. Crore)

Source Of Loan	Average Loan Balance	Interest	Interest Rate
Public Bonds	501.32	59.68	11.90%
REC	340.83	29.76	8.73%
PFC	890.475	84.82	9.53%
LIC	250.255	25.94	10.37%
Others	14.11	1.06	7.51%
Foreign Currency Loans	74.115	4.49	6.06%
State Govt Loan	177.80	23.15	13.02%
<b>Total</b>	<b>2248.91</b>	<b>228.90</b>	<b>10.18%</b>



The Commission has approved interest charges as per audited accounts of MSETCL. However, while truing up, the Commission has reduced the interest expenditure of Rs. 0.95 crore, which is apportioned to SLDC.

Finance Charges primarily comprise Guarantee Fees paid to the Government for furnishing Guarantee on the loans of REC, PFC, OMB and Foreign Currency loans. The actual Finance Charges have been lower than that approved by the Commission in the Tariff Order, and the same has been considered for truing up.

The summary of the interest and finance charges allowed for FY 2005-06 under truing up has been given in the Table below:

(Rs. Crore)

Particulars	Approved	Actual	Allowed under truing up
Gross Interest	308.58	228.90	227.95
Other Finance Charges	30.42	25.88	25.88
Total Interest & Finance Charges	339.00	254.78	253.83
Capitalisation	19.44	27.41	27.41
<b>Net Interest</b>	<b>319.56</b>	<b>227.37</b>	<b>226.42</b>

### **3.5 INCOME TAX**

The Commission had approved income tax liability of Rs. 41.01 Crore for FY 2005-06, in its Order on ARR for FY 2006-07, as this was based on actual advance tax paid by MSETCL to the Income Tax authorities for the year. The actual income tax as per audited accounts is also Rs. 41 crore, and the same has been considered by the Commission for truing up purposes.

### **3.6 REASONABLE RETURN**

The Commission had approved Reasonable Return of Rs. 206.24 Crore, in its Order on ARR for FY 2006-07, which was computed as 4.5% of Opening Net Fixed Assets (NFA), which was in line with the principles of the earlier Tariff Order for MSEB as a whole. MSETCL has submitted that the actual reasonable return is slightly lower as



per the computations given in the Table below, due to the change in opening NFA, after reconciliation of the accounts between the successor Companies, which has been accepted by the Commission for truing up.

(Rs. Crore)

Particulars	Amount
Opening GFA	8,302
Less accumulated depreciation	3,767
Net Fixed Assets	4,535
Less: Consumers contribution	
Capital Base	4,535
Surplus (% of capital base)	4.50%
Reasonable Return (Surplus)	204

### 3.7 TRUE-UP OF REVENUE FOR FY 2005-06

MSETCL has submitted that it raised bills on MSEDCL according to the ARR approved by the Commission for MSETCL. MSETCL has added that MSEDCL was billed on prorated basis since the date MSETCL came into existence (i.e. 6<sup>th</sup> June 2005). For the period April 1, 2005 to June 5, 2005, MSETCL has assumed that the prorated amount of Rs. 260.32 Crore has been billed and collected by MSETCL from MSEDCL, as for this period MSETCL did not have independent existence. The data on monthly billing and collection submitted by MSETCL, based on its audited accounts, is reproduced below:

**Table: Revenue of MSETCL for FY 2005-06**

Rs. Crore

Sl.	Month	Total Bill Amount
1	Apr-05	260.35*
2	May-05	
3	05-Jun-05	
4	Jun-05	100.33
5	Jul-05	120.23
6	Aug-05	120.23
7	Sep-05	120.23
8	Oct-05	120.23
9	Nov-05	120.23
10	Dec-05	120.23



Sl.	Month	Total Bill Amount
11	Jan-06	120.23
12	Feb-06	120.23
13	Mar-06	120.23
		<b>1442.72</b>

MSETCL has clarified that the monthly bill amount of Rs. 120.23 crore comprises Rs. 119.38 Cr. per month based on MERC Order for FY 2005-06 and SLDC charges of Rs. 0.85 Cr. per month.

For the period April 1, 2005 to June 5, 2005, the Commission has considered revenue based on the notional income computed by MSETCL amounting to Rs. 260.35 Crore, which will be considered while truing up the expenditure of MSEDCL in FY 2005-06. For the period June 6, 2005 to March 31, 2006, the Commission has considered revenue from transmission charges based on the monthly bill amount of Rs. 119.38 crore (Rs. 120.23 crore – Rs. 0.85 crore). .

MSETCL has also earned higher Other Income in FY 2005-06, as compared to the Other Income projected by the Commission in the Order on ARR for FY 2006-07, which has been considered by the Commission for the purposes of truing up. The total revenue considered by the Commission for the purposes of truing up is given in the Table below:

Rs. Crore

Particulars	Order	Actual
Revenue from Transmission Tariff	1432.56	1434.25
Other Income	7.60	11.88
<b>Total</b>	<b>1440.16</b>	<b>1446.13</b>

### **3.8 SUMMARY OF TRUE UP AND NET REVENUE GAP**

The net revenue gap for FY 2005-06 to be trued up is the summation of the revenue and expenditure elements as summarised in the Table below:



(Rs. Crore)

Sl	Particulars	FY 2005-06			Truing Up	
		Order	Actuals	Allowed under truing up	MSETCL	Commission
(A)	(B)	(C)	(D)	(E)	(F) = (D) - (C)	(G) = (E) - (C)
1	Operation & Maintenance Expenses	375.55	378.83	375.44	3.28	-0.11
1.1	Employee Expenses	289.66	268.80	269.14	(20.86)	(20.52)
1.2	Administration & General Expenses	25.08	29.66	25.08	4.58	0.00
1.3	Repair & Maintenance Expenses	60.81	81.22	81.22	20.41	20.41
2	Depreciation	498.09	473.94	473.94	(24.15)	(24.15)
3	Interest on Long-term Loan Capital	289.14	200.54	200.54	(88.60)	(88.60)
4	Other Interest and Finance Charges	30.42	25.88	25.88	(4.54)	(4.54)
5	Other Expenses (exchange rate variation)	(0.28)	1.09	1.09	1.37	1.37
6	Other Expenses (including material cost variation)		2.68	0	2.68	0.00
7	Other Expenses (FBT)		0.72	0	0.72	0.00
8	Income Tax	41.01	41.01	41.01	0.00	0.00
9	<b>Total Revenue Expenditure</b>	<b>1233.93</b>	<b>1123.52</b>	<b>1117.90</b>	<b>(110.41)</b>	<b>(116.03)</b>
10	Return on Capital Base	206.24	204.07	204.07	(2.17)	(2.17)
11	<b>Aggregate Revenue Requirement</b>	<b>1440.17</b>	<b>1327.59</b>	<b>1321.97</b>	<b>(112.58)</b>	<b>(118.20)</b>
12	Less: Non Tariff Income	7.60	11.88	11.88	4.28	4.28
13	<b>Aggregate Revenue Requirement from Transmission Tariff</b>	<b>1432.57</b>	<b>1315.71</b>	<b>1310.09</b>	<b>(116.86)</b>	<b>(122.48)</b>
14	Revenue from Transmission Tariff	1432.57	1434.25	1434.25	1.68	1.68
15	<b>Revenue Gap for truing up</b>			<b>(124.16)</b>	<b>(118.54)</b>	<b>(124.16)</b>

Thus, MSETCL has earned additional revenue of Rs. 124.16 crore in FY 2005-06, which has to be adjusted against the expenditure of MSEDCL in FY 2005-06.



### **3.9 TRUING UP FOR FY 2006-07**

MSETCL has sought truing up of the expenses in FY 2006-07 on the basis of the revised estimates for FY 2006-07. However, as explained by the Commission in its earlier Orders, truing up of expenses and revenue for any year will be undertaken only on the basis of audited accounts, subject to prudence check by the Commission. Hence, there is no need to undertake the truing up of expenses and revenue of MSETCL for FY 2006-07 at this point in time, except in the case of Repair and Maintenance expenses. The Commission had ruled in its Order issued on October 19, 2006 in Case 21 of 2006, on the Review Petition filed by MSETCL on the Order issued by the Commission in Case 49 of 2005, as follows:

*“The Commission shall consider any actual incurrence of one-time R&M expenses in FY 2006-07 over and above the approved R&M expenses for current year, for truing up in next year. However, to be eligible for such truing up, MSETCL should get the Commission’s prior approval on its detailed R&M Expenses plan supported by appropriate justification.”*

Accordingly, on 12<sup>th</sup> December 2006, MSETCL submitted a R & M Expenses Plan for FY 2006-07 giving the actual expenditure incurred for Repairs and Maintenance expenses for FY 2006-07 upto September 2006 and the projection for the period October 2006 to March 2007 for consideration and approval of Commission. The total R&M expenditure envisaged under this plan is Rs. 200 Cr for FY 2006-07, as against the actual expenditure of around Rs. 36 crore in the first half of the year.

The Commission has examined the plan submitted by MSETCL for R&M expenditure in FY 2006-07. However, MSETCL has not submitted adequate details for justifying the steep increase projected in R&M expenses over the actual expenses in previous years, and has only provided the summary of R&M expenditure budget for different zones and circles, allocated to different items like plant and machinery, lines and cable network, buildings, etc., without detailing the exact nature of expenditure proposed to be undertaken by MSETCL. In the absence of these details, it is also not possible to assess whether there is any overlap between the capital expenditure and the R&M expenditure proposed by MSETCL. Further, it appears unreasonable and unlikely that MSETCL will be able to incur expenditure in the second half of the year to the extent of more than four times the actual expenditure during the first half of the year. Hence, the Commission has not considered any



revision of R&M expenses for FY 2006-07, which will be trued up after submission of audited accounts and prudence check by the Commission.



## 4 MULTI-YEAR TARIFF FRAMEWORK AND PERFORMANCE TRAJECTORY

### 4.1 CONTROL PERIOD

As stated earlier, the Commission has ruled that the Control Period for the first Multi-Year Tariff (MYT) will be from April 1, 2007 to March 31, 2010.

### 4.2 PERFORMANCE PARAMETERS

Regulation 16.1 of the MERC (Terms and Conditions of 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.” (emphasis added)*

Regulation 49.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates,

*Target availability for full recovery of annual transmission charges*

*(a) AC system :- 98 per cent*

*(b) HVDC bi-pole links and HVDC back-to-back stations :- 95 per cent*

The Commission has decided that the MYT framework for MSETCL would incorporate the performance trajectory of transmission losses and system availability, as these are the two most important performance parameters of a transmission licensee's performance. MSETCL has also proposed the performance trajectory of transmission losses and system availability over the Control Period.



#### 4.2.1 Transmission Loss

As regards transmission losses, MSETCL has stated that the Commission, in the Tariff Order dated June 28, 2006, has allowed a transmission loss of 4.85% for FY 2006-07 as against the 6% claimed by MSETCL. MSETCL has submitted that an accurate estimation of the loss levels is impossible without the full-fledged implementation of ABT metering, which is an intrinsic and essential part of determination of transmission losses for the MSETCL system. Hence, for the purposes of the ARR Computation during the Control Period, MSETCL has assumed a constant transmission loss of 4.85%. The summary of the transmission loss currently and that proposed by MSETCL over the Control Period is given in the following Table:

**Table: Transmission Loss trajectory over the Control Period**

Sl.	Particulars	Transmission Losses (%)				
		FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY-2009-10
		Actual	Estimated	Projected during Control Period		
1	HVAC	6.39	6.06	4.85	4.85	4.85
2	HVDC	4.41	3.50	3.00	3.00	3.00

The Commission has deliberated in great detail on the aspect of transmission loss to be considered in the MSETCL network, in its earlier Tariff Order for MSETCL in Case 49 of 2005, and the Order on the Review Petition filed by MSETCL in Case No. 21 of 2006. No new evidence has been submitted by MSETCL to necessitate review of the transmission loss of 4.85% allowed by the Commission. Hence, the Commission accepts MSETCL's proposal to retain the trajectory of transmission loss over the Control Period at 4.85%.

MSETCL has committed to complete the ABT metering at all interface points by September 2007. Once the metering is completed and metered data is submitted to the Commission, the Commission may review the transmission loss levels, as well as the trajectory of losses over the Control Period.



#### 4.2.2 System Availability

MSETCL has proposed the system availability over the Control Period in accordance with the Commission's Tariff Regulations, as shown in the Table below:

**Table: Trajectory of Availability over the Control Period**

Sl.	Particulars	Availability (%)				
		FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY-2009-10
		Actual	Estimated	Projected during Control Period		
1	HVAC	98.72	98.80	98.00	98.00	98.00
2	HVDC	63.48	90.93	95.00	95.00	95.00

As the trajectory of system availability proposed by MSETCL is in accordance with the Tariff Regulations, the Commission accepts the same.

#### 4.3 ANNUAL REVIEW

Regulation 17.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates,

*Where the aggregate revenue requirement and expected revenue from tariff and charges of a Generating Company or Licensee is covered under a multi-year tariff framework, then such Generating Company or Licensee, as the case may be, shall be subject to an annual performance review during the control period in accordance with this Regulation.*

Accordingly, the Commission rules that it will undertake an Annual Review of the performance of MSETCL over the Control Period, including the Aggregate Revenue Requirement and revenue, over the Control Period. MSETCL should submit its Petition for Annual Review latest by November 30 of each year, as stipulated in Regulation 9.1 of the Commission's Tariff Regulations.

#### 4.4 CONTROLLABLE AND UNCONTROLLABLE FACTORS

Regulation 17.6 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates,



*“Upon completion of the review under Regulation 17.5 above, the Commission shall attribute any variations or expected variations in performance, for variables stipulated under Regulation 15.6 above, to factors within the control of the applicant (controllable factors) or to factors beyond the control of the applicant (uncontrollable factors)”*

Regulation 17.6.1 stipulates the following factors as Un-controllable factors:

- § Force Majeure Events
- § Changes in law, judicial pronouncements and Orders of the Central Government, State Government or Commission
- § Economy-wide influences, such as unforeseen changes in inflation rate, market-interest rates, taxes and statutory levies
- § Cost of power generation and/or power purchase due to the circumstances specified in Regulation 25 (i.e. matters related to short term power purchase)

Regulation 17.6.2 stipulates the following factors as controllable factors:

- § Capital Expenditure on account of time and/or cost overruns/efficiencies in the implementation
- § Technical & Commercial Losses including bad debts
- § Consumer Mix in case of presence of more than one Distribution licensee within a area and availing open access by existing consumer
- § Working Capital Requirements
- § Standards specified under SOP Regulations
- § Labour Productivity

In this context of the above background, MSETCL has submitted that the following factors should also be considered as uncontrollable factors, viz.,

- § Interest rate variation
- § Return on Equity and Capitalisation
- § Finalisation of Transfer Scheme

(a) The Commission’s Tariff Regulations clearly stipulate that market interest rate is an uncontrollable factor, and hence, there is no reason to further clarify the same.

(b) As regards the treatment of impact of change in capitalisation schedule, it would depend on the reasons for the same, and MSETCL would have to



provide reasonable justification for the same. Disallowance of certain costs by the Commission will not constitute sufficient reason for delay in capitalisation considered by the Commission, as MSETCL is expected to maintain its expenditure within the limits specified by the Commission. Moreover, all these expenditure items are under controllable factors.

- (c) The Final Transfer Scheme needs to be notified at the earliest. The impact of the finalisation of the Transfer Scheme on MSETCL would be considered at the time of Annual Review.

#### **4.5 SHARING OF GAINS AND LOSSES**

Regulations 18 and 19 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 stipulates the mechanism for sharing of gains or losses on account of uncontrollable factors and controllable factors as follows:

*“Any approved aggregate gain or loss to the Generating Company or Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or Licensee over such period as may be specified in the Order”*

*Any approved aggregate gain to the Generating Company or Licensee on account of controllable factors to be dealt with in the following manner:*

- (a) *One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order...;*
- (b) *In case of a Licensee, one-third of the amount of such gain shall be retained in a special reserve for the purpose of absorbing the impact of any future losses on account of controllable factors...:*
- (c) *The balance amount of gain may be utilized at the discretion of the Generating Company or Licensee.*

*Any approved aggregate loss to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:*



- (a) *One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10; and*
- (b) *The balance amount of loss shall be absorbed by the Generating Company or Licensee.*

#### **4.6 ANNUAL TARIFF DETERMINATION**

Regulation 20.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates that the tariff will be determined on an annual basis, as follows:

*“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:*

- (a) 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*
- (b) Approved gains and losses to be passed through in tariffs, following the annual performance review.”*



## 5 ANNUAL REVENUE REQUIREMENT OVER MYT CONTROL PERIOD

MSETCL has given details of expenses under various heads viz. O&M expenses, depreciation, interest on loans, etc. as per the data formats prescribed by the Commission. The Commission has discussed the allowed expenditure on each of the expense heads and the total expenditure of MSETCL approved by the Commission for the Control Period from FY 2007-08 to FY 2009-10, in the subsequent Sections.

### 5.1 OPERATION & MAINTENANCE EXPENSES

Operation and Maintenance (O&M) expenses comprises employee related costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) expenditure.

Regulation 50.5.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 stipulates:

*“The Transmission Licensee shall be permitted to recover all reasonable and justifiable operation and maintenance expenses relating to the Transmission Business:*

*Provided that the Transmission Licensee shall submit a forecast of all such operation and maintenance expenses along with the application for determination of tariff:*

*Provided further that such forecast shall be based on past performance and/ or operating norms and shall be supported by detailed calculations that explain the basis for such forecast:*

*Provided further that the Commission may adopt suitable norms for allowance of operation and maintenance expenses relating to the Transmission Business.”*

MSETCL, in its submissions, has requested for an increase of around 35% over the approved level of O&M expenditure for FY 2006-07. Moreover, the actual R&M expenditure for the first six months of FY 2006-07 was around Rs 36.11 Cr, while



MSETCL has projected to spend Rs 163.60 Cr in the next six months. The Commission's views on the R&M expenditure projected by MSETCL for FY 2006-07 is detailed in Section 3, while discussing the truing up requirement for FY 2006-07. The summary of the overall O&M expenses being claimed by the Petitioner has been shown in the following table:

Particulars	Rs Crore	
	Approved	FY07 (Est.)
Net Employee Expenses	310.25	283.58
Net Administration & General Expenses	26.13	52.65
Net Repair and maintenance	59.6	199.71
Total O&M	395.98	535.94

MSETCL, in its MYT Petition, submitted that it's Petition considers projection of O&M expenditure by pegging the norms with CERC norms, qualified by MSETCL's own operating conditions and future requirements. MSETCL added that since the MERC (Terms and Conditions of Tariff) Regulations, 2005 do not specify norms for O&M expenses for the State of Maharashtra, MSETCL has taken CERC norms as benchmark, which it intend to reach gradually in the coming years.

MSETCL requested the Commission to approve O&M expenses based on certain norms calculated on the basis of per bay and per Ckt-km as shown in the following Table:

Year	Units	O&M Expense	Bays Related	Ckt-Km Related
Ratio	Rs Crore	540.26	88.60%	11.40%
FY 2006-07 (Base Year)	Rs Crore		478.67	61.59
Average No of Bays & Circuit Kilometers	No:		3146.5	35777
Per Bay Base Norm	Rs Lac/Bay		15.213	
Per Circuit Kilometer Base Norm	Rs Lac/Ckt- km			0.172

MSETCL, in its initial submission, had considered a base O&M expense of Rs 630.9 Cr for computation of such O&M norm. During the Technical Validation session, the Commission queried MSETCL regarding the computation error for developing base O&M norm. Subsequently, MSETCL re-computed the norm and submitted the revised Petition after Technical Validation session based on the O&M expense of Rs 540.26 Cr as projected for FY 2006-07, which is much higher than the approved O&M expenditure of Rs. 396 crore. MSETCL submitted the recomputed O&M norm



of Rs 15.21 Lakh/Bay and Rs 0.17 Lakh/ckt-Km for FY 2006-07. MSETCL has projected the norms over the period FY 2006-07 to FY 2009-10 with an escalation of 10% on account of inflation and has submitted the O&M expense norms for the first control period as shown in the following table:

<b>MSETCL's Projected Norms</b>	<b>FY 07</b>	<b>FY 08</b>	<b>FY 09</b>	<b>FY 10</b>
Cost Per Bay (Rs. Lakh)	15.21	16.73	18.41	20.25
Cost Per Ckt-km (Rs. Lakh)	0.17	0.19	0.21	0.23

The Commission has analysed MSETCL's request for considering the norms of O&M on the basis of cost per bay and ckt-km. The Commission is of the opinion that any such norm could be developed by studying the past trends of O&M expenses for MSETCL itself and other State Transmission Utilities, rather than comparison with norms applicable for PGCIL as stipulated by the CERC. Hence, the Commission made a detail analysis of the O&M expenditure based on the historical trend of O&M expenditure by MSETCL, and computed O&M expenditure based on cost per bay and per ckt-km. By applying such methodology, the Commission observed that the average O&M expenditure per bay works out in the range of Rs 8-10 Lakh/Bay and around Rs 0.3 Lakh/Ckt-Km. Further, the Commission has carried out a detailed analysis of the norms being prescribed/adopted by other State Electricity Regulatory Commissions (SERCs) of comparable States like Andhra Pradesh, Madhya Pradesh, Gujarat, etc. The Commission found that the O&M expenditure being allowed for MSETCL in the past years is on the higher side as compared to transmission utilities of other States, hence, there does not appear to be any grounds for any upward revision in the norms for O&M expenditure.

The Commission is of the opinion that any other suitable norms for allowance of O&M expenses could be adopted after undertaking a thorough study of the O&M expenditure, the cost drivers of the same, and the comparison of the per bay and per circuit km norms across different transmission Utilities, through a separate process. Till any such norm for O&M expenditure is determined, the Commission is considering the individual elements of O&M expenditure based on the increase linked to inflation indices for the first Control Period of MYT.

MSETCL has submitted O&M expenses for the first Control Period from FY 2007-08 to FY 2009-10, under separate heads of R&M, Employee and Administrative &



General (A&G) expenses as per the Formats prescribed by the Commission after apportioning the total O&M expenditure over employee expenses, A&G expenses and R&M expenses, in the same proportion as in the base year, i.e., FY 2006-07. These expenses as claimed by MSETCL for the Control Period are given in the following Table:

Particulars	Rs Crore		
	FY08	FY09	FY10
Net Employee Expenses	331.70	394.22	465.94
Net Administration & General Expenses	61.45	73.03	86.32
Net Repair and maintenance	233.88	277.96	328.54
Total O&M	627.03	745.21	880.80

### 5.1.1 Employee Expenses

MSETCL has projected employee expenses of Rs. 331.70 Cr, Rs 394.22 Cr, and Rs 465.94 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, including terminal benefits. MSETCL has provided details of the employee expenses under various heads in accordance with the Formats stipulated by the Commission. The effective increase in employee expenditure as projected by MSETCL over the Control Period amounts to around 18% on a year-on-year basis. The main heads of employee expenses are salaries and wages, dearness allowance, other allowances/bonus/benefits and terminal benefits.

The Commission has considered an increase of around 5.36% on account of inflation, over the allowed level of gross employee expenses in FY 2006-07, based on the increase in Consumer Price Index (CPI). The Commission has considered the point to point inflation over CPI numbers for Industrial Workers for a period of 3 years, i.e., FY 2003-04 to FY 2005-06, as per Labour Bureau, Government of India. The employee expense has been capitalized at the average capitalisation rate @ 20%, as proposed by MSETCL.

The Commission has thus allowed net employee expenditure of Rs. 284.34 Cr, Rs 299.57 Cr and Rs 315.63 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, as given in the following Table:



**Employee Expenses****Rs Crore**

Sl.	Particulars	FY 2006-07 Order	FY 2007-08	FY 2008-09	FY 2009-10
1	Gross Employee Expense	337.35	355.42	374.47	394.53
2	Expenses Capitalised	(27.10)	(71.08)	(74.89)	(78.91)
<b>3</b>	<b>Net Employee Expenses</b>	<b>310.25</b>	<b>284.34</b>	<b>299.57</b>	<b>315.63</b>

**5.1.2 Administration & General Expenses**

MSETCL has projected net A&G expenses of Rs. 61.45 Cr, Rs 73.03 Cr and Rs 86.32 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively. MSETCL has provided details of the A&G expenses under various heads in accordance with the Formats stipulated by the Commission. The effective increase in A&G expenditure as projected by MSETCL over the Control Period amounts to around 18% on a year-on-year basis. The main heads of A&G expenses are rent, rates and taxes, conveyance charges, electricity charges, printing & stationery, advertisement and others.

The Commission has considered an increase of around 5.38% on account of inflation over the allowed level of gross A&G expenses in FY 2006-07, based on the increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI). The Commission has considered the point to point inflation over WPI numbers (as per Office of Economic Advisor) and CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2003-04 to FY 2005-06. The Commission has considered a weight of 60% to WPI and 40% to CPI, based on the expected relationship with the cost drivers. The A&G expense has been capitalized at the capitalisation rate of 15% proposed by MSETCL.

The Commission has thus allowed A&G expenditure of Rs. 25.45 Cr, Rs 26.82 Cr and Rs 28.26 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, as given in the following Table:.



**Administrative & General Expenses** **Rs Crore**

Sl.	Particulars	FY 2006-07 Order	FY 2007-08	FY 2008-09	FY 2009-10
1	Gross A&G Expense	28.41	29.94	31.55	33.24
2	Capitalisation-A&G Expenses	(2.28)	(4.49)	(4.73)	(4.99)
<b>3</b>	<b>Net A&amp;G Expense</b>	<b>26.13</b>	<b>25.45</b>	<b>26.82</b>	<b>28.26</b>

**5.1.3 Repair & Maintenance Expenses**

MSETCL has projected R&M expenses of Rs. 233.88 Cr, Rs 277.96 Cr and Rs 328.54 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, which is about 2.50% of the Gross Fixed Assets (GFA) at the beginning of the year. MSETCL has provided details of the R&M expenses under various heads in accordance with the Formats stipulated by the Commission. The effective increase in R&M expenditure as projected by MSETCL over the Control Period amounts to around 18% on a year-on-year basis. The main heads of R&M expenses are pant & machinery, buildings, civil works, hydraulic works, lines & cable networks, furniture & fixtures etc. MSETCL has proposed capitalisation of R&M expenditure at the rate of 0.75%.

The R&M expenditure in the past has ranged around 0.98% of opening GFA, as compared to the 2.5% of GFA proposed by MSETCL. The Commission had directed MSETCL to submit the details of R&M expenditure planned. However, MSETCL has not been able to provide any substantive details to justify the R&M expenditure being planned, as was the case with the explanation sought for FY 2006-07. The Commission has hence, considered an increase in R&M expenditure for the first Control Period, by considering the inflationary impact of around 5.39% based on the increase in WPI over the approved gross R&M amount of Rs 81.29 Cr in FY 2006-07. The Commission has considered capitalisation of R&M expenditure at the rate of 0.75%, as proposed by MSETCL.

The R&M expenditure approved by the Commission is shown in the following Table:



**Repair & Maintenance Expenses** **Rs Crore**

Sl.	Particulars	Approved	FY 2007-08	FY 2008-09	FY 2009-10
1	Gross R&M Expense	81.29	85.67	90.29	95.15
2	Capitalisation- R&M Expenses	(0.09)	(0.13)	(0.14)	(0.14)
<b>3</b>	<b>Net R&amp;M Expense</b>	<b>81.20</b>	<b>85.54</b>	<b>90.15</b>	<b>95.01</b>

**5.1.4 Total O&M Expenses**

Accordingly, the O&M expenditure allowed by the Commission over the Control Period is shown in the following Table:

**Operation & Maintenance Expenses** **Rs Crore**

O&M	FY 2006-07 Order	FY 2007-08	FY 2008-09	FY 2009-10
<b>Employee Expenses</b>				
Gross Employees expenses	337.35	355.42	374.47	394.53
Capitalisation - Employee Expenses	(27.10)	(71.08)	(74.89)	(78.91)
Net Employee expenses	<b>310.25</b>	<b>284.34</b>	<b>299.57</b>	<b>315.63</b>
<b>A&amp;G Expenses</b>				
Gross A&G expenses	28.41	29.94	31.55	33.24
Capitalisation - A&G Expenses	(2.28)	(4.49)	(4.73)	(4.99)
Net A&G expenses	<b>26.13</b>	<b>25.45</b>	<b>26.82</b>	<b>28.26</b>
<b>R&amp;M Expenses</b>				
Gross R&M expenses	81.29	85.67	90.29	95.15
Capitalisation - R&M Expenses	(0.09)	(0.13)	(0.14)	(0.14)
Net R&M expenses	<b>81.20</b>	<b>85.54</b>	<b>90.15</b>	<b>95.01</b>
<b>O&amp;M Expenses</b>				
Gross O&M expenses	447.05	471.03	496.30	522.93
Capitalisation- O&M Expenses	(29.47)	(75.70)	(79.76)	(84.04)
Net O&M Expenses	<b>417.58</b>	<b>395.33</b>	<b>416.54</b>	<b>438.89</b>

Though the Commission has not fixed the norms for the transmission business in this Order, the principles to review the performance of the utility with reference to the cost drivers and outputs are being laid down. This review would be carried along with the Annual Performance Review as per the Regulations. This would also facilitate evolution of the norms for transmission business at a later stage.



The performance review framework is similar to the norm based approach adopted by the CERC for regulating the Central Transmission Utility. The cost drivers and outputs for the transmission business considered by CERC are inflationary increase, no. of bays maintained and length of lines maintained. The Commission rules that the performance of MSETCL would also be reviewed on similar lines. The principles are as underlined below:

1. The total O&M Costs for all the years should be allocated between bays and line. The Commission directs the Licensee to submit the details of O&M expenses per circuit Kilometer of line length and per bay for the last five years, if data is not available on the same, then the licensee should submit the asset details of bays and assets details of lines, along with definition as to what constitutes a bay as per the licensee. This information would help derive a ratio which the Commission would use to allocate the total O&M Costs to bays and lines.
2. Based on the above information, the O&M costs per bay and O&M Costs per circuit-km for the past years would be computed by dividing the O&M cost for bays / lines with total number of bays / total line length in km. The Commission directs MSETCL to submit information regarding the number of bays and total length in circuit kilometers for every year.
3. The operation and maintenance expense norms for the Control Period shall be derived on the basis of the average of the actual O&M Costs per bay and O&M Costs per circuit-km for the five (5) years ending March 31, 2006, based on the audited financial statements, excluding abnormal operation and maintenance expenses, if any, subject to prudence check by the Commission.
4. The average of such O&M Costs per bay and O&M Costs per circuit-km shall be considered as the costs for the financial year ended March 31, 2004 and shall be escalated at the rate of a composite index that Commission would compute based on Wholesale Price Index (WPI) and Consumer Price Index for Industrial workers (CPI\_IW) by assigning appropriate weights to the same, per annum to arrive at Operation and Maintenance expenses for the base year commencing April 1, 2006.



5. The base Operation and Maintenance expenses for each subsequent year shall be escalated at the rate of the composite index that Commission would compute as mentioned above to arrive at permissible O&M Costs per bay and O&M Costs per circuit-km for the control period. These values would be reviewed as part of the Annual Performance Review in terms of productivity levels and efficiency factors.

## **5.2 CAPITAL EXPENDITURE AND CAPITALISATION**

Before discussing the capital expenditure related expenditure, viz., depreciation, advance against depreciation, interest on loans, and Return on Equity, it is essential to discuss the capital expenditure approved by the Commission and the capitalisation considered by the Commission over the Control Period.

### **5.2.1 Capital Expenditure**

MSETCL incurred capital expenditure of Rs. 297.13 Crore and Rs. 227.07 Crore in FY 2004-05 and FY 2005-06, respectively. Further, during FY 2006-07, as against projected capital expenditure of Rs 1,054 Crore, the Commission had considered capital expenditure and capitalisation of only Rs 196 Crore for the purpose of approval of ARR for FY 2006-07, pending detailed scrutiny of various schemes and in view of the fact that projected capital expenditure by MSETCL was significantly higher than past performance of MSETCL in this respect. The actual capital expenditure in FY 2006-07 till December 2006, has been only around Rs. 196 crore, as against the projected capital expenditure of Rs. 1054 crore.

MSETCL has projected capital expenditure of around Rs. 13,248 Cr over the three year Control Period from FY 2007-08 to FY 2009-10, for the purpose of approval of ARR and Tariff determination under Multi Year Tariff regime. The annual rolling plan for capital expenditure submitted by MSETCL amounts to a capital outlay of Rs 3994 Crore, Rs 4258 Crore and Rs 4997 Crore over FY 2007-08, FY 2008-09 and FY 2009-10, respectively. A circle-wise summary of capex plans as proposed by MSETCL is presented in the following Table.



(Rs Cr)					
SR NO	NAME OF CIRCLE	PROVISION FOR 2007-2008	PROVISION FOR 2008-2009	PROVISION FOR 2009-2010	GRAND TOTAL
1	AURANGABAD CIRCLE	544.34	703.22	846.19	2093.75
2	KALWA CIRCLE	553.40	766.08	1169.27	2488.75
3	PUNE CIRCLE	912.95	789.65	728.52	2431.12
4	NASIK CIRCLE	659.95	496.53	483.23	1639.71
5	NAGPUR CIRCLE	931.65	1113.49	1556.81	3601.95
6	OTHERS	391.36	388.76	213.00	993.12
	<b>TOTAL (MSETCL)</b>	<b>3993.64</b>	<b>4257.73</b>	<b>4997.02</b>	<b>13248.39</b>

The classification of schemes involving capital outlay exceeding Rs 10 Crore (DPR schemes) and schemes involving capital outlay below Rs 10 Crore (Non-DPR schemes) is presented in the following Table. The DPR schemes entail an outlay of around Rs 12701 Crore and non-DPR schemes entail an outlay of around Rs 547 Crore. The DPR schemes and Non-DPR schemes have been further classified into ongoing schemes, new schemes, augmentation schemes, ORC schemes and R&M schemes as summarised in the following Tables:

Scheme Description	TOTAL (DPR + Non-DPR) Schemes (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
DPR schemes	3721.36	4061.84	4918.10	12701.30
Non-DPR schemes	272.28	195.89	78.92	547.09
<b>TOTAL (DPR + Non DPR) Schemes</b>	<b>3993.64</b>	<b>4257.73</b>	<b>4997.02</b>	<b>13248.39</b>

#### DPR Schemes – Capital Expenditure

Scheme Description	DPR Schemes (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Ongoing schemes	473.10	334.49	180.93	988.52
New schemes	2212.03	2850.89	3734.47	8797.39
Augmentation schemes	719.85	656.94	740.68	2117.47
ORC schemes	24.25	3.46	0.00	27.71



Scheme Description	DPR Schemes (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
R&M schemes	292.13	216.06	262.02	<b>770.21</b>
<b>TOTAL</b>	<b>3721.36</b>	<b>4061.84</b>	<b>4918.10</b>	<b>12701.30</b>

**Non-DPR Schemes – Capital Expenditure**

Scheme Description	Non-DPR Schemes (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Ongoing schemes	34.92	8.95	2.00	<b>45.87</b>
New schemes	144.52	148.63	69.92	<b>363.07</b>
Augmentation schemes	19.25	23.75	5.00	<b>48.00</b>
ORC schemes	9.95	0.00	0.00	<b>9.95</b>
R&M schemes	63.65	14.56	2.00	<b>80.21</b>
<b>TOTAL</b>	<b>272.28</b>	<b>195.89</b>	<b>78.92</b>	<b>547.09</b>

**TOTAL (DPR + Non-DPR) Schemes – Capital Expenditure**

Scheme Description	TOTAL (DPR + Non-DPR) Schemes (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Ongoing schemes	508.02	343.44	182.93	<b>1034.39</b>
New schemes	2356.55	2999.52	3804.39	<b>9160.46</b>
Augmentation schemes	739.10	680.69	745.68	<b>2165.47</b>
ORC schemes	34.20	3.46	0.00	<b>37.66</b>
R&M schemes	355.78	230.62	264.02	<b>850.42</b>
<b>TOTAL</b>	<b>3993.64</b>	<b>4257.73</b>	<b>4997.02</b>	<b>13248.39</b>

In this context, the Commission had made certain observations in its previous Order for FY 2006-07 (Case 49 of 2005), wherein the Commission opined that the three year rolling infrastructure plan should provide the long term perspective of the direction in which MSETCL would like the network to develop, which should be clearly specific and meaningful. Further, the existing system loading condition, voltage and constraints are to be clearly shown on the network plan to (technically) justify the addition (and associated capital expenditure proposed) or strengthening of existing system, sub-stations and lines along with impact of such addition/strengthening of the existing network. The Commission had asked MSETCL to first



identify the lacunae/drawbacks in the present transmission system which the plan proposes to address.

The Commission had also asked MSETCL to list the order of priority in which the fresh schemes are proposed to be undertaken. MSETCL was asked to state, against each scheme, (both continuing schemes as well as newly proposed) the objective of the scheme and how the same fits into the overall objective of strengthening the network in an optimum manner and its likely benefits in quantified terms and possible impact on tariff as well as reduction in transmission losses.

In this regard, MSETCL has so far submitted only 64 schemes involving total capital outlay of Rs 3632 Crore out of the proposed capital outlay of Rs 12701 Crore during the Control Period. Upon scrutiny of the schemes proposed, the Commission has so far accorded in-principle clearance for schemes involving capital outlay of Rs 1343.90 Crore. However, the Commission would like to reiterate that in-principle approval of the scheme does not absolve the senior management of MSETCL of their responsibility to prioritise various schemes and undertake cost benefit analysis and financial analysis to validate the commercial prudence of each scheme. MSETCL should ensure that the projected benefits actually accrue for the benefit of the stakeholders. It would be essential to monitor progress of each scheme as well as track expenditure and benefits accrued as per the scheme.

The Commission had earlier directed MSETCL to submit details of scheme-wise capital expenditure actually incurred till December 2006 under Form 4.3. The Commission expresses its dissatisfaction to MSETCL's response that as per existing accounting practice, MSETCL does not maintain accounts of scheme-wise capital expenditure on an ongoing basis. The Commission is of the opinion that unless the capital expenditure and other progress are monitored scheme-wise, the capex schemes could be futile.

The Commission directs MSETCL to submit a Report within four weeks from issuance of this Order for proposed mechanism and action taken to monitor scheme-wise capital expenditure and track progress of approved schemes. Further, the Commission directs MSETCL to submit list of critical milestones for completion of approved schemes for monitoring purposes and also submit quarterly report on compliance of the milestones alongwith reasons/justification for delays, if any and remedial action proposed.



In view of above, the Commission has considered the capital outlay of DPR schemes as already approved by the Commission for determination of ARR over the first Control Period of MYT regime. Thus, out of approved capital expenditure of Rs 1343.90 Crore, the projected outlay over the Control Period amounts to Rs 1198.89 Crore, as some of the schemes were already initiated during FY 2006-07 or earlier. Further, the Commission has also considered 50% of capital outlay for Non-DPR schemes as against that proposed by MSETCL over the Control Period. The capital outlay towards DPR schemes and Non-DPR schemes over control period as considered by Commission is summarised in the following Table. Even with this assumption, the capital expenditure and capitalisation projected by the Commission in FY 2007-08 and subsequent years is much higher than that achieved by MSETCL in the past. The Commission would consider revision in the capital outlay during annual performance review upon scrutiny of progress of schemes already approved and need for capital outlay towards additional capex schemes as may be approved by then, as well as the benefits that have accrued to the system/network on account of the schemes already undertaken.

Scheme Description	TOTAL (DPR + Non-DPR) Schemes – (Commission)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
DPR schemes	488.22	487.80	222.87	1198.89
Non-DPR schemes	136.14	97.95	39.46	273.55
<b>TOTAL (DPR + Non DPR) Schemes</b>	<b>624.36</b>	<b>585.75</b>	<b>262.33</b>	<b>1472.44</b>

### 5.2.2 Capitalisation

MSETCL has proposed total capitalisation amounting to Rs 8315 Crore over the three year Control Period, comprising works capitalisation (Rs 6818.32 Cr), interest capitalisation (Rs 498.90 Cr) and expenses capitalisation (Rs 997.80 Cr). The annual capitalisation over the Control Period as projected by MSETCL is Rs 1577 Cr (FY 2007-08), Rs 2884 Cr (FY 2008-09) and Rs 3854 Cr (FY 2009-10). The summary of capitalisation as proposed by MSETCL is presented in the following table.



(Rs Cr)

Item Description	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Investments	3994.00	4257.00	4997.00	<b>13248.00</b>
Works Capitalised	1293.15	2364.88	3160.29	<b>6818.32</b>
Interest Capitalised	94.62	173.04	231.24	<b>498.90</b>
Expense Capitalised	189.24	346.08	462.48	<b>997.80</b>
<b>Total Capitalisation</b>	<b>1577.01</b>	<b>2884.00</b>	<b>3854.01</b>	<b>8315.02</b>

It is worthwhile to note here that average capitalisation over past two years has only been around Rs 196 Crore.

In this context, the Commission notes that as per Regulation 46.1 of MERC (terms and Conditions of Tariff) Regulations, 2005, the approved investment plan of the transmission licensee shall be the basis for determining annual allowable capital cost for each financial year for any capital expenditure project initiated on or after April 1, 2005 with a value exceeding Rs 10 Crore. Further, as per Regulation 46.2, for each capital expenditure project, the sum total of annual allowable capital cost from the date of commencement of such project till the date of commissioning shall be the original cost of such project.

Thus, the Regulations envisage scheme-wise capitalisation of the capital expenditure for the purpose of determination of original cost of the project. Accordingly, the Commission has considered the capital expenditure and phasing plan for investment for the approved capex schemes as the basis for determining original cost of the projects in respect DPR schemes. The Commission has computed interest during construction (IDC) based on the approved capex plan and phasing plan over MYT Control Period and has considered debt to equity ratio of 80:20 as proposed by MSETCL. Based on the present interest rate prevalent for the loans disbursed by PFC/REC, the Commission has considered interest of 10.5% instead of 11.5% as proposed by MSETCL.

The Commission has also computed IDC for the non-DPR schemes on the basis of the phasing plan proposed by MSETCL in respect of non-DPR schemes. Most of the non-DPR schemes are spread over two fiscal years entailing outlay of around 40% during first year and balance in next year. In addition, the Commission has also considered expense capitalisation comprising capitalisation of employee expenses, A&G



expenses and R&M expenses, in line with past trends and the basis for which is elaborated under relevant paragraphs.

A summary of capitalisation as considered by the Commission over MYT control period for DPR schemes and Non-DPR schemes is presented in the following Tables.

#### DPR Schemes - Capitalisation

Item Description	DPR Schemes (Rs Cr) – (Commission)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Works Capitalised	432.65	327.50	583.75	<b>1343.90</b>
Interest Capitalised (IDC)	29.79	24.01	59.94	<b>113.74</b>
Expense Capitalised	62.23	58.27	74.53	<b>195.03</b>
<b>Total Capitalisation</b>	<b>524.68</b>	<b>409.78</b>	<b>718.21</b>	<b>1652.67</b>

#### Non-DPR Schemes - Capitalisation

Item Description	Non-DPR Schemes (Rs Cr) - (Commission)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Works Capitalised	93.66	120.86	74.55	<b>289.07</b>
Interest Capitalised (IDC)	7.87	10.15	6.26	<b>24.28</b>
Expense Capitalised	13.47	21.50	9.52	<b>44.49</b>
<b>Total Capitalisation</b>	<b>115.00</b>	<b>152.52</b>	<b>90.33</b>	<b>357.85</b>

#### Total (DPR schemes + Non-DPR Schemes) – Capitalisation

Item Description	TOTAL (DPR + Non-DPR) Schemes (Rs Cr) (Commission)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Works Capitalised	526.31	448.36	658.30	<b>1632.97</b>
Interest Capitalised (IDC)	37.66	34.16	66.20	<b>138.02</b>
Expense Capitalised	75.71	79.77	84.04	<b>239.52</b>
<b>Total Capitalisation</b>	<b>639.67</b>	<b>562.30</b>	<b>808.55</b>	<b>2010.51</b>

### 5.3 INTEREST ON LONG TERM DEBT

MSETCL has proposed gross interest expenditure of around Rs 2347 Cr and net interest expenditure of Rs 2196 Cr after interest capitalisation and apportionment of interest cost towards SLDC over the MYT Control Period, as given in the Table below:



Item Description	MSETCL – (Existing + New) Loans (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Existing Loans	170.99	127.03	84.30	<b>381.40</b>
New Loans	266.00	643.2	1055.52	<b>1964.72</b>
<b>Gross Interest Cost</b>	436.99	770.23	1139.82	<b>2347.04</b>
Less : SLDC apportionment	(1.00)	(1.00)	(1.00)	<b>(3.00)</b>
Less : interest capitalised	(27.47)	(48.46)	(71.75)	<b>(147.68)</b>
<b>Net Interest Cost</b>	<b>408.52</b>	<b>720.77</b>	<b>1067.07</b>	<b>2196.36</b>

Existing loans

Existing loans comprise outstanding loan on account of public bonds, REC loan, PFC loan, LIC loan and foreign currency loan.

Item Description	MSETCL - Existing Loans (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Op. Balance	1703.82	1337.89	975.26	
Loan Repayment	365.93	362.63	405.84	<b>1134.30</b>
Cl. Balance	1337.89	975.26	569.42	
<b>Gross Interest Cost</b>	<b>170.99</b>	<b>127.03</b>	<b>84.30</b>	<b>381.40</b>
Less : SLDC apportionment	(1.00)	(1.00)	(1.00)	<b>(3.00)</b>
Less : Interest capitalised	(10.71)	(7.94)	(5.25)	<b>(23.90)</b>
<b>Net Interest cost</b>	<b>159.28</b>	<b>118.09</b>	<b>78.05</b>	<b>355.42</b>

New loans

MSETCL has submitted that it will be primarily dependent on long term borrowings from Financial Institutions for funding its capital expenditure plans. MSETCL has proposed debt : equity funding of 80 : 20 with borrowings from REC and PFC. MSETCL has indicated that fresh loan drawal from REC and PFC would have a moratorium of 3 years and 2 years, respectively, with an interest rate of 11.5%.

Item Description	MSETCL – New Loans (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
REC Loan	151.27	381.50	649.99	<b>118276</b>
PFC Loan	114.73	261.70	405.53	<b>781.96</b>



Item Description	MSETCL – New Loans (Rs Cr)			
	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
<b>Gross Interest Expenditure</b>	<b>266.00</b>	<b>643.20</b>	<b>1055.52</b>	<b>1964.72</b>
<b>Less : Interest capitalised</b>	<b>(16.76)</b>	<b>(40.52)</b>	<b>(66.50)</b>	<b>(123.78)</b>
<b>Net Interest cost</b>	<b>249.24</b>	<b>602.68</b>	<b>989.02</b>	<b>1840.94</b>

The Commission notes that the average interest cost on the existing loans during FY 2005-06 has been around 10.2% p.a., comprising public bonds (11.91%), REC loan (8.98%), PFC loan (9.58%), LIC loan (10.29 %), and others (7.51%). Further, on loans recently disbursed by REC/PFC, the interest rate amounts to 10.5% p.a. Accordingly, for the purpose of determination of interest cost over MYT control period, the Commission has considered interest rate of 10.5% p.a. for the new loans as well as existing loans from REC and PFC. The drawal of loan quantum has been linked to the phasing of capex plan as elaborated in earlier paragraphs. Further, interest cost upto commissioning of the projects has been considered as part of Interest during construction (IDC). Subsequent to commissioning of the project, loan quantum corresponding to capitalised project cost has been considered for computing interest cost as part of revenue expense. The interest on SLDC loans on the books of MSETCL has been considered as Rs. 0.95 crore, at the same level in FY 2005-06.

Accordingly, interest cost projected by MSETCL and approved by Commission over the MYT Control Period is summarised in the following Table.

**Loan and Interest workings (Rs Cr)**

Item Description	MSETCL			Commission		
	FY 2007-08	FY 2008-09	FY 2009-10	FY 2007-08	FY 2008-09	FY 2009-10
Op. Balance	2441.39	5248.90	8250.29	2441.39	2535.47	2685.08
Additions	3196.00	3404.00	3998.00	482.57	512.26	250.56
Repayments	(388.49)	(402.61)	(591.16)	(388.49)	(362.65)	(424.19)
Cl. Balance	5248.90	8250.29	11657.13	2535.47	2685.08	2511.45
<b>Gross Interest</b>	<b>436.89</b>	<b>770.21</b>	<b>1140.09</b>	<b>262.46</b>	<b>273.13</b>	<b>271.94</b>
<b>Less : SLDC apportionment</b>	<b>(1.00)</b>	<b>(1.00)</b>	<b>(1.00)</b>	<b>(0.95)</b>	<b>(0.95)</b>	<b>(0.95)</b>
<b>Less : IDC</b>	<b>(27.47)</b>	<b>(48.46)</b>	<b>(71.75)</b>	<b>(37.66)</b>	<b>(34.16)</b>	<b>(66.20)</b>
<b>Net Interest Cost</b>	<b>408.42</b>	<b>720.75</b>	<b>1067.34</b>	<b>223.85</b>	<b>238.02</b>	<b>204.79</b>



#### 5.4 DEPRECIATION AND ADVANCE AGAINST DEPRECIATION

MSETCL has considered depreciation rates specified under MERC (Terms and Conditions of Tariff) Regulations, 2005 for projecting the depreciation over the MYT Control Period. Further, Opening Gross Block has been derived based on proposed capitalisation during respective years over the MYT Control Period.

Accordingly, MSETCL has proposed depreciation of Rs 297.01 Cr during FY 2007-08, Rs 343.93 Cr during FY 2008-09 and Rs 429.74 Cr during FY 2009-10, at an average depreciation rate of 3.12%, 3.10% and 3.08%, respectively. Opening Gross Fixed Assets have been projected at Rs 9513.01 Cr for FY 2007-08, Rs 11090.02 Cr for FY 2008-09 and Rs 13974.02 Cr for FY 2009-10. The summary of depreciation and Opening GFA as proposed by MSETCL is presented in the following Table:

<b>Depreciation</b>		<b>(Rs Cr)</b>		
<b>Item Description</b>	<b>FY 2007-08</b>	<b>FY 2008-09</b>	<b>FY 2009-10</b>	<b>TOTAL</b>
Op. GFA	9513.01	11090.02	13974.02	
Depreciation	297.01	343.93	429.74	<b>1070.69</b>
% depreciation	<b>3.12%</b>	<b>3.10%</b>	<b>3.08%</b>	

The Commission notes that Opening GFA of Rs 9513.01 Crore for FY 2007-08 as projected by MSETCL, is based on assumed capitalisation of Rs 879.49 Cr during FY 2006-07. During earlier Order for FY 2006-07 (Case 49 of 2005), the Commission has observed as under:

*“The Commission is of the view that the capital expenditure of Rs. 1,054 Crore proposed by MSETCL for FY 2006-07 is high and the projected capitalization of Rs. 948.97 Crore for FY 2006-07 is also very high in comparison to past trends in actual capital expenditure incurred and capitalization achieved on a yearly basis.*

....

*For the purpose of computation of the ARR, the Commission has considered an average of the fixed asset capitalization in the past 2 years, as allowable capital expenditure for FY 2006-07. The Commission has thus considered capital expenditure of Rs. 196 Crore in FY 2006-07 for the purpose of the ARR computation. However, this does not mean that the Commission has put an upper cap on the amount of capital expenditure and consequent fixed asset*



*capitalisation for FY 2006-07. The Commission will consider the actual capitalization of fixed assets achieved in FY 2006-07 in the Truing-up Process for the ARR determination for FY 2007-08.”*

In this context, the Commission observes that as per MSETCL’s own submission, actual capital expenditure incurred upto December 2006 (Q3 of FY 2006-07) has been only around Rs 196 Cr. Accordingly, the Commission has revised the Opening GFA for FY 2007-08 for the purpose of determination of depreciation over MYT Control Period, which may be reviewed during next annual performance review once audited financial results for FY 2006-07 are available. Further, Opening GFA for FY 2008-09 and FY 2009-10 have been derived based on the projected capitalisation of assets as discussed under previous paragraphs.

Accordingly, depreciation expenditure projected by MSETCL and approved by the Commission over the MYT Control Period is summarised in the following Table:

Item Description	MSETCL			Commission		
	FY 2007-08	FY 2008-09	FY 2009-10	FY 2007-08	FY 2008-09	FY 2009-10
Op. GFA	9513.01	11090.02	13974.02	8648.72	9288.39	9850.69
Depreciation	297.01	343.93	429.74	271.28	290.31	307.04
% depreciation	<b>3.12%</b>	<b>3.10%</b>	<b>3.08%</b>	<b>3.14%</b>	<b>3.13%</b>	<b>3.12%</b>

#### Advance against depreciation

MSETCL has sought approval for advance against depreciation in line with the conditions stipulated under the Commission’s Tariff Regulations.

The Commission notes that as per Regulation 48.3 of MERC (Terms and Conditions of Tariff) Regulations, 2005, where the actual amount of loan repayment in any financial year exceeds the amount of depreciation allowable under Regulation 50.4.1, the Transmission licensee shall be allowed an advance against depreciation for the difference between the actual amount of such repayment and the allowable depreciation for such financial year.

Accordingly, depreciation expenditure including Advance against Depreciation (AAD) projected by MSETCL and approved by Commission over the MYT Control Period is summarised in the following Table:



Item Description	MSETCL			Commission		
	FY 2007-08	FY 2008-09	FY 2009-10	FY 2007-08	FY 2008-09	FY 2009-10
Depreciation	297.01	343.93	429.74	271.28	290.31	307.04
Loan repayment	388.49	402.61	591.16	388.49	362.65	424.19
Advance against depreciation (AAD)	91.48	58.68	161.42	117.21	72.34	117.15
<b>Depreciation incl. AAD</b>	<b>388.49</b>	<b>402.61</b>	<b>591.16</b>	<b>388.49</b>	<b>362.65</b>	<b>424.19</b>

### 5.5 INTEREST ON WORKING CAPITAL AND FINANCE CHARGES

MSETCL has projected the quantum of working capital over the Control Period in accordance with the MERC (Terms and Conditions of Tariff) Regulations, 2005. MSETCL has submitted that the rate of interest on working capital loans has been considered as 11.50%, which is slightly higher than the prevailing SBI short-term PLR of 11.25% (revised w.e.f. Dec 27, 2006), considering the inflationary trends in the economy.

MSETCL has projected the other interest and finance charges comprising Guarantee fee payable to Government of Maharashtra (GoM) for long-term loans taken from lenders, and Other Finance Charges. MSETCL has projected Guarantee Fees to remain constant at FY 2006-07 levels, and interest and finance charges have been considered at 0.5% of projected Long-Term Loan drawal during the financial year.

The Commission has computed interest on working capital during the first Control Period as per the MERC (Terms and Conditions of Tariff) Regulations, 2005. The rate of interest on working capital loans has been considered as 11.5%, which is the prevalent SBI short-term PLR, as stipulated in the Tariff Regulations.

The Commission has accepted MSETCL's projection of guarantee fees, while other finance charges has been computed at 0.5% of Long-Term Loan drawal considered by the Commission over the Control Period.

The interest on working capital and other Finance Charges as projected by MSETCL and approved by the Commission is shown in the Table below:

(Rs. Crore)



Sl	Particulars	FY 2006-07	FY 2007-08		FY 2008-09		FY 2009-10	
		Order	MSETCL	Commission	MSETCL	Commission	MSETCL	Commission
1	Interest on Working Capital	23.14	38.29	31.65	48.69	34.87	61.43	37.66
2	Gurantee Fees & Finance Charges	30.42	36.64	23.07	37.68	23.22	40.65	21.91
	<b>TOTAL</b>	<b>53.56</b>	<b>74.93</b>	<b>54.72</b>	<b>86.37</b>	<b>58.09</b>	<b>102.08</b>	<b>59.57</b>

## 5.6 OTHER EXPENSES

MSETCL has sought approval of Other Expenses under various heads, as given in the Table below:

(Rs. Crore)

Particulars	MSETCL		
	2007-08	2008-09	2009-10
Research and Development Expenses	6.50	8.03	10.44
Corporate Social Responsibility	2.03	2.51	3.26
(Gain)/Loss due to Exchange Rate Variation	0.00	0.00	0.00
Material Cost Variation & others	0.00	0.00	0.00
Fringe Benefit Tax	1.10	1.21	1.33
<b>Total</b>	<b>9.63</b>	<b>11.75</b>	<b>15.03</b>

### a. Research & Development

MSETCL has proposed 0.4% of the ARR during the Control Period towards Research & Development expenses, and Rs. 10 lakh towards establishment of Research, Development and Technology Cell, and appointment of Consultant for identifying the R&D infrastructure needed including computing facilities, laboratory, etc.

The Commission is not convinced about MSETCL's rationale and the need for spending Rs. 6.5 crore to Rs. 10 crore on R&D activities, in the absence of detailed rationale and project schemes. Further, MSETCL should focus on its primary responsibility as a STU, and implement the Commission's directives regarding metering, etc., in all earnest, before venturing into R&D, etc.

### b. Corporate Social Responsibility

MSETCL has proposed expenditure to the extent of 0.25% of ARR in the Control Period towards Corporate Social Responsibility, to undertake the following activities:

- § Plantation of Trees
- § Providing Drinking water supply by installation of tube wells



- § Carrying out medical camps
- § Building study rooms within substation premises of remote areas (for eg. those areas badly affected by load shedding).
- § Encouraging Distributed Generation
- § Providing assistance to the dependents of deceased employees of MSETCL.

While it is appreciable that MSETCL is taking its corporate social responsibility seriously, it is unreasonable to expect the consumers to pay for the same, as compared to a statutory liability, which has to be paid for by the consumers. If MSETCL desires to spend on these activities, it is free to do so out of the RoE that it earns from the business.

**c. Loss on foreign exchange variation**

MSETCL has not considered any loss on forex variation during the control period, but has requested the Commission to allow any expense on this account during the Annual Performance Review.

Accordingly, the Commission has not considered any expenditure on this account.

**d. Material cost variation and others**

MSETCL has incurred a loss due to material cost variation and others in FY 2005-06, amounting to Rs. 2.32 crores. Since such costs are difficult to project, MSETCL has not projected any projection for the same during the current year and control period.

The Commission is of the opinion that material cost variation is an accounting expense and should not be considered as a pass through to be charged to consumers, and has hence, not considered any expenditure on this account.

**e. Fringe Benefit Tax**

MSETCL has projected 10% annual increase in Fringe Benefit Taxes over the estimated expense of Rs. 1 crore on this account during FY 2006-07.

The Commission is of the opinion that FBT should be considered as a part of employee expenses, and has hence, not considered FBT separately, as the employee expenses have been projected on the basis of inflationary trends.



Thus, the Commission has not considered any expenditure under Other Expenses over the Control Period.

### 5.7 INCOME TAX

MSETCL had initially projected the income tax by considering the profit after tax to be equal to 14% Return on Equity. Subsequently, in response to the Commission's directions, MSETCL reworked the Income Tax computations on the basis of the projected Profit and Loss accounts, in its revised MYT Petition.

MSETCL submitted that as per the modified Transfer Scheme, it has received a business loss and unabsorbed depreciation of Rs. 1486 Cr. in its books of accounts. Out of this loss, an amount of Rs. 536 Cr. has been set off in FY 2005-06, and it expected that the balance loss amount will be set off by FY 2007-08. Hence, MSETCL has considered that it will have to pay income tax at the corporate tax rates from FY 2008-09 onwards.

MSETCL has also requested the Commission to consider any change in the provisions of the Income Tax Act 1961 resulting in change of tax liability as an uncontrollable factor, and allow pass through of variation in income tax, if any, at actuals in the future.

MSETCL's projection of Income Tax is given in the Table below:

(Rs. Crore)

Particulars	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Applicable Tax Rate	11.22%	11.22%	33.66%	33.66%
Income Tax Liability	33.93	37.80	109.72	56.27

The Commission has accepted MSETCL's projection of Income Tax for the purpose of this Order, and directs MSETCL to ensure that the entire past losses loss and unabsorbed depreciation are set off against future profits, so that the income tax liability can be minimised. The Commission will however, true up the income tax liability, based on actual income tax paid by MSETCL for its licensed business, over the Control Period.



## 5.8 SERVICE TAX LIABILITY

In the context of the possible Service Tax liability that was discussed in the previous Order also, MSETCL has submitted that subsequently, the Central Board of Excise and Customs (CBEC) has asked for certain additional documentation to be furnished, which MSETCL has submitted. Further, MSETCL's Chartered Accountants have suggested that this matter be taken up when a formal demand for service tax is made by CBEC. MSETCL has hence not considered any incidence of Service Tax in its MYT Petition, but requested that in the event that MSETCL has to pay this Service Tax, then the Commission may permit it to be passed through the Transmission Tariff.

In line with its earlier ruling on this issue, the Commission has not considered service tax as an expense in the ARR during the Control Period. However, the Commission advises MSETCL to take up the matter of exemption of service tax with the concerned authorities and settle the issue expeditiously.

## 5.9 CONTRIBUTION TO CONTINGENCY RESERVES

MSETCL has projected the contribution to contingency reserves as 0.5% of opening GFA, in line with MERC (Terms and Conditions of Tariff) Regulations, 2005, over the Control Period.

The Commission has allowed contribution to contingency reserves at 0.5% of Opening GFA as determined by the Commission over the Control Period, based on the capitalisation projected by the Commission. The contribution to contingency reserve as projected by MSETCL and as allowed by the Commission is given in the Table below:

(Rs. Crore)

Sl	Particulars	FY 2007-08		FY 2008-09		FY 2009-10	
		MSETCL	Commission	MSETCL	Commission	MSETCL	Commission
1	Contribution to Contingency Reserves	48	43	55	46	70	49



**5.10 NON-TARIFF INCOME**

MSETCL earns non-tariff income, from activities such as sale of scrap, sale of tender forms, and miscellaneous receipts. The non-tariff income projected by MSETCL over the Control Period is given in the Table below:

(Rs. Crore)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Non Tariff Income	9.49	9.67	9.86

The Commission has accepted MSETCL's projections of non-tariff income for the Control Period from FY 2007-08 to FY 2009-10.

**5.11 RETURN ON EQUITY**

MSETCL has projected the Return on Equity (RoE) in accordance with Section 50.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 and based on the Commission's direction to compute RoE only on the assets put to use (assets capitalised). MSETCL has projected RoE of Rs. 424 crore, Rs. 487 crore, and Rs. 581 crore, over FY 2007-08, FY 2008-09 and FY 2009-10, respectively.

The Commission has considered the RoE @ 14% of the equity, in accordance with the Commission's Tariff Regulations, on the opening equity at the beginning of the year, and on 50% of the projected levels of assets capitalised during each year of the Control Period and considering the debt:equity ratio as 80:20, as elaborated in the earlier paragraphs on capital expenditure and asset capitalisation.

The computation of RoE as approved by the Commission is shown in the Table below:

(Rs. Crore)

S.no.	Particulars	Ref.	Control Period (Forecast)		
			2007-08	2008-09	2009-10
1	Regulatory Equity at the beginning of the year		2735	2863	2976
2	Capitalisation during the year		640	562	809
3	Equity portion of Capitalisation		128	112	162
4	Regulatory Equity at the end of the year		2863	2976	3137
	<b>Return Computation</b>				
5	Return on Regulatory Equity at the beginning of the year	14%*(1)	383	401	417
6	Return on Equity portion of capital expenditure	14%*(3)/2	9	8	11
7	<b>Total Return on Regulatory Equity</b>	<b>(5)+(6)</b>	<b>392</b>	<b>409</b>	<b>428</b>



The Commission has instituted a truing up mechanism where in the actual expenses and the actual revenue will be trued up at the end of the year based on audited financial results and subject to a prudence check. Thus, the amount shown as equity and return thereon would be trued up based on the actual additional equity used to fund the capital expenditure. Similarly, the amount of additional loan would be trued up based on the actual loan borrowed by MSETCL during the year.

## 5.12 ANNUAL REVENUE REQUIREMENT

The Annual Revenue Requirement of MSETCL is the summation of all the expenses and the RoE as computed above, less non-tariff income, and has been summarized below:

**Table: Annual Revenue Requirement (Rs. Cr)**

S.no.	Particulars	FY 2006-07	FY 2007-08		FY 2008-09		FY 2009-10	
		Order	MSETCL	Commission	MSETCL	Commission	MSETCL	Commission
1	Operation & Maintenance Expenses	388.09	627.03	395.33	745.21	416.54	880.80	438.89
1.1	Employee Expenses	303.96	331.70	284.34	394.22	299.57	465.94	315.63
1.2	Administration & General Expenses	24.53	61.45	25.45	73.03	26.82	86.32	28.26
1.3	Repair & Maintenance Expenses	59.60	233.88	85.54	277.96	90.15	328.54	95.01
2	Depreciation, including advance against depreciation	302.59	388.49	388.49	402.61	362.65	591.16	424.19
3	Interest on Long-term Loan Capital	275.40	408.43	244.98	720.75	254.98	1067.33	253.87
4	Interest on Working Capital	23.14	38.29	31.65	48.69	34.87	61.43	37.66
5	Other Interest and Finance Charges	30.42	36.64	23.07	37.68	23.22	40.65	21.91
6	Other Expenses (pls give details)	1.41	9.63	0.00	11.75	0.00	15.03	0.00
7	Income Tax	0.00	37.80	37.80	109.72	109.72	56.27	56.27
8	Contribution to contingency reserves	42.26	47.57	43.24	55.45	46.44	69.87	49.25
9	Total Revenue Expenditure	1063.31	1593.88	1164.56	2131.85	1248.43	2782.54	1282.05
10	Return on Equity Capital	336.34	424.14	391.88	486.60	408.71	580.93	427.90
11	Aggregate Revenue Requirement	1399.65	2018.02	1556.44	2618.45	1657.14	3363.47	1709.95
12	Less: Non Tariff Income	6.52	9.49	9.49	9.67	9.67	9.86	9.86
13	Aggregate Revenue Requirement from Transmission Tariff	1393.13	2008.53	1546.95	2608.78	1647.47	3353.61	1700.09

## 5.13 ARR DETERMINATION FOR THE CONTROL PERIOD

Since this is the first time MYT principles are being adopted, and since the investment plans have not been finalized owing to delay in submission of DPR and other issues, the Commission has specified a framework for determination of ARR in future years of the Control Period. This would impart greater regulatory certainty to the licensees and consumers.



The ARR for future years of the Control Period (i.e., for the 2<sup>nd</sup> and 3<sup>rd</sup> year of the Control Period) would be determined based on the following formula:

$$ARR_n = ARR^1_n + ACC_n + K + Z$$

where,

**ARR<sub>n</sub>** is Aggregate Revenue Requirement for the n<sup>th</sup> year of the Control Period;

**ARR<sup>1</sup><sub>n</sub>** is the Annual Revenue requirement specified by the Commission at the beginning of the Control Period for the n<sup>th</sup> year.

**ACC<sub>n</sub>** is the additional capital costs (depreciation, interest expenditure, and return on equity) that need to be considered for the n<sup>th</sup> year of the Control Period based on the additional DPRs or investments approved by the Commission during the Control Period.

**K** is the adjustment to the revenue requirement to be carried out as part of the Annual Performance Review to share the net gains and losses arising out of controllable and uncontrollable factors as per Regulation 18 and 19 of the MERC (Terms and Conditions of Tariff) Regulations, 2005. This shall include

- Positive and negative variations on account of uncontrollable factors,
- Negative adjustment under Regulation 19.1 (a) to pass one-third of the aggregate gain from controllable factors to consumers
- Positive adjustment under Regulation 19.2 (a) to pass one-third of the aggregate loss from controllable factors to consumers

**Z** is an adjustment that the Commission may apply during the control period to pass any appropriate financial implications (positive or negative). This may also include incentives or penalties linked to mandatory standards such as Voltage variations, Safety standards and desirable standards such as Feeder availability, Sub-station availability, Voltage unbalance, Neutral Voltage Displacements (NVD), voltage variation index, System adequacy & System security.



**5.14 APPLICABILITY OF ORDER**

This Order for the first Control Period from FY 2007-08 to FY 2009-10, shall come into force with effect from April 1, 2007, and shall continue to be in force till March 31, 2010. However, the Commission will undertake the Annual Review of MSETCL's performance during the last quarter of FY 2007-08. MSETCL is directed to submit its Petition for Annual Review of its performance during the first half of FY 2007-08, as well as truing up of revenue and expenses for FY 2006-07, with detailed reasons for deviation in performance, latest by November 30, 2007.

The Commission acknowledges the efforts taken by the Consumer Representatives and other individuals and organisations for their valuable contribution to the ARR and MYT determination process.

The Commission would also like to put on record, the efforts of its advisors, M/s ABPS Infrastructure Advisory Private Limited.

(S. B. Kulkarni)  
Member

(A. Velayutham)  
Member

(Pramod Deo)  
Chairman, MERC



(Malini Shankar)  
Secretary, MERC



**APPENDIX 1****List of persons who attended the Technical Validation Session held on 25<sup>th</sup> January 2007**

<b>S.No</b>	<b>Name of Person / Official</b>	<b>Designation</b>	<b>Institution</b>
1	Shri S.G.Kelkar	CE	MSETCL
2	Shri V.M. Latey	CE	MSETCL
3	Shri M.R.Khadgi	CE	MSETCL
4	Shri G.S.Limaye	ED	MSETCL
5	Shri S.J.Amberkar	GM ( F & A)	MSETCL
6	Shri V.M.Mathdari	SE	MSETCL
7	Shri S.S.Kulkarni	EE	MSETCL
8	Shri K.A.Chafale	JE	MSETCL
9	Shri Vijayanad	DM	REL
10	Shri K.N.Rajagopal	Dy.CE	BEST
11	Shri S.A.Nikaye	SE	MSPGCL
12	Shri P.K.Anvekar	Sr. EE	TPC
13	Shri V.M. Baswant	CE	MSEDCL
14	Shri N.D. Patil		
15	Shri Nikit Abyankar		Prayas
16	Shri P.K.Puri	Member	VIA
17	Shri R.Venkataraman	Member	VIA



**Appendix 2****List of Objectors**

<b>S.No</b>	<b>Name of the Objector</b>	<b>Organization</b>
1.	Nikit Abhyankar	Prayas Energy Group
2.	Thane Belapur Ind.Association	
3.	Shri S.A.Puranik	BEST
4.	Shri V.Y.Tamhane	Mofussil Mills Association,
5.	Representative	Buldhana District Seva Samithi,



**List of persons who attended the Public Hearing on 28<sup>th</sup> February, 2007**

S.No	Name of Person	Designation and Institution / Company
1	Shri A.V.Despande	MSETCL
2	Shri Vinayak Rao	Dir (F), MSETCL
3	Shri Gajanan J. Kolhe	MSETCL
4	Shri K.N.Chandarana	MSETCL
5	Shri M.R.Khadgi	CE, MSETCL
6	Shri V.M. Mathdari	SE, MSETCL
7	Shri V.T. Phirke	EE (TRC), MSETCL
8	Shri S.D.Sone	CGM (HR), MSETCL
9	Smt Bagal	MSETCL
10	Shri B.M.Johar	MSETCL
11	Shri Sunil V	MSETCL
12	Shri B.K.Pauram	MSETCL
13	Shri C.L.Bhalerao	MSETCL
14	Shri A.B.Shinde	MSETCL
15	Shri S.A. Nikage	MSPGCL
16	Shri R.R.Kulkarni	MSPGCL
17	Shri V.B.Semletty	REL
18	Shri Nikhit Abhyankar	Prayas
19	Representative	Thane Belapur Industries Association
20	Shri A.Banerjee	IMaCS
21	Shri Kasif N. Khan	IMaCS
22	Shri N.Ponratnam	Vel Induction Hardenings
23	Shri Dibesh Narang	IMaCS
24	Shri Parag Sharma	IMaCS
25	Shri S.N. Karbhande	Grahak Seva Sangh
26	Shri Sandeep Dhamne	AGM, Feedback Ventures
27	Shri Lawson Pereira	RA, Feedback Ventures
28	Shri Ajit Pandit	ABPS Infra
29	Shri Samuel George	ABPS Infra
30	Shri S.R.Karkhanis	ABPS Infra



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31	Shri K.B.Lal	ABPS Infra
32	Shri Kumar Chittilla	WISE

