Before the

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

World Trade Centre, Centre No.1, 13th Floor, Cuffe Parade, Mumbai 400005

Email: mercindia@mercindia.org.in

Website: www.mercindia.org.in

Case No. 116 of 2008

IN THE MATTER OF

Maharashtra State Electricity Distribution Company Ltd.'s (MSEDCL) Petition for Truing Up for FY 2007-08, Annual Performance Review for FY 2008-09 and Tariff Determination for FY 2009-10

Shri V. P. Raja, Chairman
Shri A. Velayutham, Member
Shri S. B. Kulkarni, Member

ORDER

Dated: August 17, 2009

In accordance with the MERC (Terms and Conditions of Tariff) Regulations, 2005, and upon directions from the Maharashtra Electricity Regulatory Commission (Commission), the Maharashtra State Electricity Distribution Company Limited (MSEDCL), submitted its application for approval of truing up of Aggregate Revenue Requirement (ARR) for FY 2007-08, Annual Performance Review (APR) for FY 2008-09, and Aggregate Revenue Requirement (ARR) and Tariff for 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 MSEDCL, all the objections, responses of the MSEDCL, issues raised during the Public Hearing, and all other relevant material, and after review of Annual Performance for FY 2008-09, determines the ARR and Tariff for MSEDCL for FY 2009-10 as under.

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List of Abbreviations

AAD	Advance Against Depreciation
A&G	Administration and General
APDRP	Accelerated Power Development and Reforms Programme
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
AS	Accounting Standard
ASC	Additional Supply Charge
ATE	Appellate Tribunal for Electricity
AT&C	Aggregate Technical & Commercial
BEE	Bureau of Energy Efficiency
BEST	Brihanmumbai Electric Supply & Transport Undertaking
Bosch	Bosch Limited
BPL	Below Poverty Line
CAGR	Compounded Annual Growth Rate
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
CII	Confederation of Indian Industry
COS	Cost of Supply
COSIA	Chamber of Small Industries Association
CPI	Consumer Price Index
CPP	Captive Power Plant
Commission/MERC	Maharashtra Electricity Regulatory Commission
Cr	Crore
DA	Dearness Allowance
DPC	Dabhol Power Company
DPR	Deatiled Project Report
DSM	Demand Side Management
EA 2003/ Act	Electricity Act, 2003
EPS	Engineering, Procurement & Construction
EPS	Electric Power Survey
ESO	Energy Sent Out
FAC	Fuel Adjustment Cost
FPA	Fuel Price Adjustment
FY	Financial Year

GFA	Gross Fixed Assets
GFSS	Gaothan Feeder Separation Scheme
GoM	Government of Maharashtra
GR	Government Resolution
GSM	Global System for Mobile Communication
HT	High Tension
HVDS	High Voltage Distribution System
IDC	Interest During Construction
IEX	Indian Energy Exchange
InSTS	Intra-State Transmission System
IASC	Incremental Additional Supply Charge
kVA	Kilo-Volt Ampere
kW	Kilo Watt
kWh	Kilo Watt Hour / Unit
LC	Letter of Credit
LT	Low Tension
MAT	Minimum Alternate Tax
MPECS	Mula Pravara Electric Cooperative Society Limited
MSEB	Maharashtra State Electricity Board
MSEDCL	Maharashtra State Electricity Distribution Company Ltd.
MSETCL	Maharashtra State Electricity Transmission Company Ltd.
MSLDC	Maharashtra State Load Despatch Centre
MSPGCL	Maharashtra State Power Generation Company Limited
MU	Million Units (MkWh)
MGP	Mumbai Grahak Panchayat
MYT	Multi Year Tariff
NCE	Non Conventional Energy
NIMA	Nashik Industries & Manufacturers' Association
NMC	Nasik Municipal Corporation
NTP	National Tariff Policy
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PF	Power Factor
PFC	Power Finance Corporation
PGCIL	Power Grid Corporation of India Limited
PPA	Power Purchase Agreement

PWW	Public Water Works
REC	Rural Electrification Corporation
REL	Reliance Energy Limited
RGGVY	Rajeev Gandhi Grameen Vidyutikaran Yojana
RGPPL	Ratnagiri Gas and Power Private Limited
RInfra	Reliance Infrastructure Limited
RLC	Regulatory Liability Charge
RLDC	Regional Load Dispatch Centre
RPO	Renewable Purchase Obligation
RPS	Renewable Energy Purchase Specification
RoE	Return on Equity
Rs.	Indian Rupees
SHR	Station Heat Rate
SLDC	State Load Despatch Centre
SOP	Standards of Performance
SSP	Sardar Sarovar Project
STL	Short Term Loans
STP	Sewage Treatment Plants
STU	State Transmission Utility
TBIA	Thane Belapur Industries Association
ToD	Time of Day
TPC	The Tata Power Company Ltd.
TP	Tariff Policy
TTSC	Total Transmission System Cost
TVS	Technical Validation Session
UI	Unscheduled Interchange
VIA	Vidharba Industries Association
VIPL	Vidarbha Industrial Power Limited
VUEL	Vidyut Urja Equipments Pvt. Ltd.
VRS	Voluntary Retirement Scheme
WPI	Wholesale Price Index
WRPC	Western Region Power Committee

1 BACKGROUND AND SALIENT FEATURES OF ORDER

1.1 Background

The Maharashtra State Electricity Distribution Company Ltd. (MSEDCL) 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 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.

MSEDCL is in the business of distribution and supply of electricity in the entire State of Maharashtra, except the Mumbai licence area supplied by Brihan-Mumbai Electric Supply & Transport Undertaking (BEST), Reliance Infrastructure Limited (RInfra), and The Tata Power Company Limited (TPC), and the area supplied by Mula Pravara Electric Co-operative Society (MPECS).

1.2 Tariff Regulations

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

1.3 Commission's Order on MYT Petition for MSEDCL for the Control Period from FY 2007-08 to FY 2009-10

MSEDCL submitted its ARR and Multi Year Tariff (MYT) Petition for the first Control Period from FY 2007-08 to FY 2009-10 on December 29, 2006. The Commission issued the MYT Order for MSEDCL on May 18, 2007 (Operative Order issued on April 27, 2007), which came into effect from May 1, 2007. The Commission determined the tariff for FY 2007-08 through this Tariff Order.

1.4 Commission's Order on Petition for Annual Performance Review for FY 2007-08 and Determination of Revenue Requirement for FY 2008-09

MSEDCL submitted its Petition for Annual Performance Review for FY 2007-08 and Tariff Determination for FY 2008-09 on November 30, 2007. The Commission issued the Order on the Annual Performance Review for FY 2007-08 and determination of tariff for wheeling of electricity and retail sale of electricity for MSEDCL for FY 2008-09, on June 20, 2008 (Operative Order issued on May 31, 2008), which came into effect from June 1, 2008. As the Annual Performance Review for FY 2007-08 and Tariff determination for FY 2008-09 were under process, the Utilities filed a Petition for continuation of tariff determined for FY 2007-08 beyond March 31, 2008, till the time of issuance of the respective Orders for each Utility. Accordingly, the Commission in its Order issued on April 1, 2008, extended the applicability of the aforesaid Tariff Orders for the Utilities till the revised tariffs are determined for FY 2008-09 under the APR framework and Orders issued thereunder.

1.5 Review Petition on the Commission's APR Order for FY 2007-08 and Tariff determination for FY 2008-09

MSEDCL filed a Petition on affidavit on July 21, 2008 under Regulation 85 of the MERC (Conduct of Business) Regulations, 2004, seeking a review of the aforesaid Order dated June 20, 2008 passed in Case No. 72 of 2007. MSEDCL filed an addendum to the above-mentioned Petition on August 7, 2008, and requested the Commission to include the same in the Review Petition. The Commission, vide its Order dated December 10, 2008 (Case No. 42 of 2008) upheld some of the contentions raised in MSEDCL's Review

Petition and clarified that any impact of the same shall be taken into account by the Commission in its Order on MSEDCL's Petition for APR for FY 2008-09 and tariff determination for FY 2009-10. The Commission also permitted MSEDCL to recover Rs. 427 crore, through an Additional Charge, over the four-month period from December 2008 to March 2009.

1.6 Petition for Truing up for FY 2007-08, Annual Performance Review for FY 2008-09 and Tariff determination for FY 2009-10

As per the MERC Tariff Regulations, the application for the determination of tariff has to be made to the Commission not less than 120 days before the date from when the tariff is intended to be made effective. The Commission had directed MSEDCL to submit the Petition for Annual Performance Review latest by November 30 of each year in line with Regulation 9.1 of the MERC Tariff Regulations.

Initially, MSEDCL submitted its Petition for Truing Up for FY 2007-08, Annual Performance Review for FY 2008-09 and ARR proposal for FY 2009-10 on December 8, 2008, based on actual audited expenditure for FY 2007-08, actual expenditure for first half of FY 2008-09, i.e., from April to September 2008, revised estimate of expenses for the period from October 2008 to March 2009, and projections for FY 2009-10. MSEDCL, in its Petition, requested the Commission to:

a) Approve the total recovery of ARR of FY 2009-10, provisional true-up amount of FY 2008-09, true-up amount of FY 2007-08 and other claims as proposed by MSEDCL.
b) Determine the category-wise tariffs to meet the revenue requirement of MSEDCL.
c) Approve the removal of 10% ceiling on levy of FAC Charges taking into consideration the fuel cost variations and power purchases for full eligible amounts.
d) Permit MSEDCL to pass on adjustments due to changes in the cost of power procurement to the consumers, excluding the consumers belonging to BPL Domestic, LT & HT Agricultural, and LT & HT Public Water Works category consumers and may please further permit MSEDCL to levy FAC on remaining categories of consumers in proportion to the base tariff as may be applicable to respective consumer category as proposed in the Petition.
e) Approve removal of Load factor and ToD Tariff Incentive as proposed in the Petition.

f) Approve increase in Fixed/ Demand Charges as proposed in the Petition.
g) Approve applicability of LT BPL Domestic category tariff as suggested by MSEDCL. However, tariff applicable to these consumers may be retained at current levels.
h) Approve retention of tariff applicable to LT /HT Agricultural consumers at current level.
i) Approve retention of tariff applicable to LT /HT PWW consumers at current level.

The Commission observed that though MSEDCL has projected a revenue gap of around Rs 11,000 Crore for FY 2009-10 in its Petition, MSEDCL had not submitted its tariff proposal and proposed category-wise tariffs to meet the revenue gap as per Regulation 8.3 of the MERC (Terms and Conditions of Tariff) Regulations, 2005. Further, MSEDCL had also not considered the impact of the Commission's Order on the Review Petition filed by MSEDCL in Case No. 42 of 2008, which was issued on December 10, 2008. Therefore, the Commission directed MSEDCL, vide its letter dated December 31, 2008 to file its Tariff Petition to meet the projected revenue gap in FY 2009-10, after accounting for the additional revenue of Rs 427 Crore to be earned in FY 2008-09.

MSEDCL submitted a Revised Petition under affidavit on February 2, 2009, seeking approval of the Annual Performance Review for FY 2008-09, as per Regulation 17 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 and Aggregate Revenue Requirement and Tariff for FY 2009-10, with the following main prayers:

a) Approve the total recovery of ARR of FY 2009-10, Provisional true-up amount of FY 2008-09, the true-up amount of FY 2007-08 and other claims as proposed by MSEDCL;
b) Approve the category-wise tariffs submitted by MSEDCL to meet revenue requirement of MSEDCL;
c) Approve the tariff philosophy suggestions requested by MSEDCL;
d) Approve the removal of 10% ceiling on levy of FAC Charges taking into consideration the fuel cost variations and power purchases for full eligible amounts;
e) Permit MSEDCL to pass on adjustments due to changes in the cost of power procurement to the consumers, excluding the consumers belonging to BPL Domestic, LT & HT Agricultural and LT & HT Public Water Works category consumers and may please further permit MSEDCL to levy FAC on remaining

categories of consumers in proportion to the base tariff as may be applicable to respective consumer category as proposed in the Petition;

f) Approve removal of Load Factor and TOD Tariff Incentive as proposed in the Petition;
g) Approve increase in Fixed / Demand Charges as proposed in the Petition;
h) Approve applicability of LT BPL Domestic category tariff as suggested by MSEDCL. However, tariff applicable to these consumers may be retained as current levels;
i) Approve retention of LT-1 Domestic 0-100 Units energy charge at current levels and increase of demand charges as proposed in the Petition;
j) Approve retention of tariff applicable to LT/HT Agricultural consumers at current level;
k) Approve retention of tariff applicable to LT / HT PWW consumers at current level.

The Commission, vide its letter dated February 16, 2009, forwarded the preliminary data gaps and information required from MSEDCL. MSEDCL submitted its replies to the preliminary data gaps and information requirement on February 24, 2009.

The Commission held a Technical Validation Session (TVS) on MSEDCL's APR for FY 2008-09 and Tariff Petition for FY 2009-10, on February 26, 2009, in the presence of authorised Consumer Representatives. The list of individuals, who participated in the TVS, is provided at **Appendix-1**. During the TVS, several discrepancies and data inconsistencies/gaps were identified and the Commission directed MSEDCL to submit the additional data and clarifications, and to make copies of the same available to the authorised Consumer Representatives. MSEDCL submitted the additional data and clarifications along with its revised APR Petition under affidavit on May 4, 2009.

The Commission directed MSEDCL vide its letter dated May 5, 2009, to submit a Supplementary Submission addressing the following issues identified by the Commission in the context of the revised Petition and replies to data gaps after TVS submitted by MSEDCL:

- Provide justification as to how MSEDCL's proposal of cross-subsidy reduction/increase is in accordance with the various provisions of the Electricity

Act, 2003, Tariff Policy and Judgments of the Appellate Tribunal for Electricity (ATE) in this regard.

- Consider 4% distribution loss reduction during FY 2009-10 as per the trajectory approved in the MYT Order, rather than 1% loss reduction considered by MSEDCL for projecting the energy balance for FY 2009-10.
- Consider the quantum of power purchase from MSPGCL same as that projected by MSPGCL in its APR Petition such that realistic power purchase cost is reflected in the Petition.
- Provide adequate rationale and justification for each of the tariff philosophy proposals and modification of category-wise tariffs proposed by MSEDCL.
- Provide the basis and justification for proposing exemption of selected consumer categories connected to express feeders from levy of express feeder charge.

Further, as the Annual Performance Review for FY 2008-09 and Tariff determination for FY 2009-10 were under process, the various Utilities filed a Petition for continuation of tariff determined for FY 2008-09 till the time of issuance of the respective Orders for each Utility. Accordingly, the Commission in its Order issued on April 1, 2009, extended the applicability of the aforesaid Tariff Orders for the Utilities till the revised tariffs are determined for FY 2009-10 under the APR framework and Orders issued there under.

1.7 Admission of Petition and Public Process

As directed by the Commission, MSEDCL vide its letter dated May 7, 2009, submitted its reply to the queries raised by the Commission as Supplementary Submission to the revised Petition. The revised APR Petition along with the Supplementary Submission was admitted by the Commission on May 8, 2009.

In accordance with Section 64 of the EA 2003, the Commission directed MSEDCL to publish its application in the prescribed abridged form and manner, to ensure public participation. The Commission also directed MSEDCL to reply expeditiously to all the suggestions and comments from stakeholders on its Petition. MSEDCL issued the public notices in English and Marathi newspapers inviting suggestions and objections from stakeholders on its APR Petition. The Public Notice was published in newspapers on May 13, 2005. Further, as directed by the Commission, MSEDCL made available the copies of Executive Summary of its Petition along with the Supplementary Submission (both in

English and Marathi version) and the APR Petition admitted by the Commission for inspection/purchase by members of the public at MSEDCL's offices and on MSEDCL's website (www.mahadiscom.in) and also on the web site of the Commission (www.mercindia.org.in) in downloadable format. The Public Notice specified that the suggestions and objections, either in English or Marathi, may be filed in the form of affidavits along with proof of service on MSEDCL.

The Commission received written objections expressing concerns primarily on several issues, including procedural issues, distribution losses, sales projections, power purchase, tariff categorisation, cross-subsidy, etc., in case of MSEDCL. The list of objectors, who participated in the Public Hearing, is provided in **Appendix- 2**.

The Commission held Public Hearings at Amravati, Nagpur, Aurangabad, Nashik, Pune, and Navi Mumbai during the period from June 17 to July 1, 2009, as per the following schedule. Consumer Representatives also participated actively in this process.

Sl.	Place /Venue of Public Hearing	Date
1	**Amravati -** Sant Dnyaneshwar Sanskritik Bhavan, Morshi Road, Amravati	17.06.2009
2	**Nagpur -** Vanamati Hall, V.I.P Road, Dharampeth, Nagpur	18.06.2009
3	**Aurangabad -** Meeting Hall, Office of the Divisional Commissioner, Aurangabad	22.06.2009
4	**Nashik -** Office of the Commissioner, Niyojan Bhavan, Nasik Revenue Division, Nasik Road, Nasik	25.06.2009
5	**Pune -** Council Hall, Office of the Divisional Commissioner, Pune	29.06.2009
6	**Mumbai -** Conference Hall, 7^{th} floor CIDCO Bhavan, CBD, Belapur, Navi- Mumbai -400614	1. 07.2009

The Commission has ensured that the due process, contemplated under law to ensure transparency and public participation has been followed at every stage meticulously and adequate opportunity was given to all the persons concerned to file their say in the matter.

This Order is the detailed Order on the APR Petition filed by MSEDCL, which deals with the truing up for FY 2007-08, Annual Performance Review of FY 2008-09 and determination of revised revenue requirement and tariff of MSEDCL for FY 2009-10. Various objections that were raised on MSEDCL's Petition after issuing the public notice both in writing as well as during the Public Hearing, along with MSEDCL's response and the Commission's rulings have been detailed in Section 2 of this Order.

1.8 Organisation of the Order

This Order is organised in the following Sections:

- **Section 1** of the Order provides a brief history of the quasi-judicial regulatory process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms has been included at the beginning of this Section.
- **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. The various objections have been summarized, followed by the response of MSEDCL and the ruling of the Commission on each of the issues.
- **Section 3** of the Order details the Commission's analysis and decisions on the truing up sought by MSEDCL for FY 2007-08.
- **Section 4** of the Order discusses the Review of Performance for FY 2008-09, covering both physical performance and expenditure heads. This Section also details the Commission's analysis on various components of revenue requirement of MSEDCL for FY 2009-10, including sales projections, distribution losses, energy balance, power purchase, O&M expenses, etc.
- **Section 5** of the Order details the Tariff Philosophy adopted by the Commission and the category-wise tariffs applicable for FY 2009-10.
- **Section 6** specifies the applicability of the Order**.**

2. OBJECTIONS RECEIVED, MSEDCL'S RESPONSE AND COMMISSION'S RULING

2.1. ADMISSIBILITY OF APR PETITION

Vidarbha Industries Association (VIA) submitted that MSEDCL's Petition is not in accordance with Sections 45 and 61 of EA 2003, and MERC Tariff Regulations, as the proposal neither encourages competition, efficiency, economical use of resources, good performance and optimum investments, nor does it safeguard consumers' interest. Further, MSEDCL's proposal for recovery of the cost of supply of electricity is neither reasonable nor does it reduces cross-subsidy. VIA requested the Commission to reject MSEDCL's APR Petition and direct MSEDCL to resubmit the Petition with proper computation of material facts and correct future projections with due consideration to Section 61 of EA 2003 and MERC Tariff Regulations.

Shri Ponrathnam, ISPAT, and several other objectors submitted that MSEDCL's proposal is not maintainable as it is against the principles of MYT and provisions of EA 2003 and Tariff Policy (TP).

Tata Motors submitted that as per the MERC Tariff Regulations, under a Multi Year Tariff (MYT) framework, the application for determination of tariff for any financial year shall be made not less than one hundred and twenty (120) days before the commencement of such financial year. Accordingly, it was essential for MSEDCL to submit the APR Petition to the Commission by November 30, 2008. In the Tariff Order for FY 2008-09, Commission had also directed MSEDCL to submit the APR Petition latest by November 30, 2008. Tata Motors added that MSEDCL has not followed the guidelines laid down by the Commission and delayed the process by more than six (6) months, due to which, sufficient time is not available for review of MSEDCL's Petition. Tata Motors and several other objectors requested the Commission to reject MSEDCL's tariff hike proposal for FY 2009-10.

MSEDCL's Response

MSEDCL submitted that the Petition for Annual Performance Review of FY 2008-09 is based on the Audited Accounts of FY 2007-08, actual O&M expenses incurred till September 2008 and Power Purchase, Sales and Capital expenditure incurred till December 2008. MSEDCL has also submitted revised projections for FY 2009-10. Thus, MSEDCL has submitted realistic and actual data, and projections are based on audited figures for FY 2007-08.

MSEDCL submitted that the Petition for Annual Performance Review for FY 2008-09 has been filed in accordance with the provisions of the MERC Tariff Regulations, and in compliance with Section 61 of EA 2003.

MSEDCL submitted that the APR petition for FY 2008-09 was submitted to the Commission, and as per Regulation 90 of MERC (Conduct of Business) Regulations, 2004, the Public Notice was published by May 13, 2009, well before the actual dates of Public Hearing. Hence, the consumers' contention that sufficient time was not available is not correct.

Commission's Ruling

There is no denying that there has been an inordinate delay on the part of MSEDCL in submitting the APR Petition. Since MSEDCL has been repeatedly claiming that it has severe liquidity problems, it would have been in MSEDCL's own interest to file the complete APR Petition on time.

Despite the delay in filing of APR Petition by MSEDCL, the Commission has ensured that the stakeholders have had adequate time to study the documents and give their considered inputs on the same. The Public Notice was published on May 13, 2009, and the Petition documents were made available from the same day. Stakeholders were given the opportunity to file objections up to June 8, 2009, which is a period of 25 days, though the mandatory requirement is of 21 days as per the MERC (Conduct of Business) Regulations, 2009. The Public Hearings were held between the period from June 17, 2009 to July 1, 2009 in six locations in the State of Maharashtra, and oral objections submitted even at the time of the Public Hearing have been considered. Thus, the Commission is of the view that sufficient opportunity has been given to the stakeholders to submit their objections and comments on MSEDCL's APR Petition.

As regards the contentions that MSEDCL's Petition should be rejected since it is not in conformance with the EA 2003 and MERC Tariff Regulations, the Commission has ensured that while giving this Order, the expenses and revenue are considered strictly in accordance with the EA 2003 and MERC Tariff Regulations.

2.2. POWER PURCHASE

Prayas submitted that while projecting power purchase quantum and cost for FY 2009-10, MSEDCL has considered only 47419 MU of power availability from Maharashtra State Power Generation Company Limited (MSPGCL) as against 48257 MU procured from MSPGCL in FY 2007-08. Instead of considering higher generation from MSPGCL (as it has added 500 MW at Paras and Parali generating stations), MSEDCL has projected higher procurement from traders and bilateral contracts at the rate of around Rs.9 per kWh. Prayas added that considering generation from new Units at Paras and Parali and actual generation in FY 2007-08, purchase from MSPGCL for FY 2009-10 is likely to be higher by around 3800 MU. Considering average power purchase cost from MSPGCL of Rs.2.29 per unit for these additional units and average billing rate of Rs. 4 per unit, net additional revenue of Rs. 330 Crore can be generated, which has not been considered in the Petition filed by MSEDCL.

Prayas submitted that for FY 2009-10, MSEDCL has estimated purchase of 3000 MU from trading companies and Indian Energy Exchange (IEX) at the rate of Rs. 9 per unit, whereas past experience shows that MSEDCL has never purchased costly power, even when mechanisms such as Additional Supply Charges (ASC) and Regulatory Liability Charges (RLC) existed. Prayas submitted that MSEDCL is only using these factors to inflate its revenue requirement, and hence, going by the past record, it will be more realistic to consider that MSEDCL may buy costly power only to the extent of 1500 MU rather than 3000 MU. Further, the rate considered by MSEDCL for costly power purchase is exorbitantly high, since a more pragmatic overview of current market prices indicates a price of Rs.7 per unit. Prayas stated that a total Rs. 1650 Crore can be reduced from the total power purchase cost by adjusting the cost and quantum of power purchase from traders and IEX. Further, if MSEDCL actually procures additional high cost power to reduce load shedding, then the incremental cost of the same could always be recovered through the Fuel Adjustment Cost (FAC) charge mechanism, and the same will help to make MSEDCL accountable for actual power purchase from short-term sources.

Prayas submitted that through the above measures, there can be a net reduction of Rs. 2569 crore in the revenue requirement for FY 2009-10 as tabulated below:

Reducing quantum of costly power from 3000 to 1500 MU	Rs. 1350 Crore
Impact of addition 4000 MU from Paras and Parali	Rs. 327 Crore
Re-estimating balance high cost power purchase at Rs.7/unit instead of Rs.9/unit	Rs. 300 Crore
Impact of reduction in transmission costs	Rs. 1052 Crore
Total reduction in revenue requirement	**Rs. 2569 Crore**

Thane Belapur Industries Association (TBIA) submitted that the entire cost of power purchase including power purchase from costly sources should be loaded uniformly to all the consumers except BPL category consumers. MSEDCL has estimated procurement of 3000 MU of costly power at a rate of Rs. 9 per unit at a cost of Rs. 2700 Crore, thereby increasing the average cost of power purchase by 24 paise, i.e., to Rs. 2.45 per unit instead of Rs. 2.21 per unit. Actual energy available for sale, on account of power purchase of 3000 MU from traders during FY 2009-10 would be as under:

Power purchases from Traders	-	3000 MU
Inter-State transmission losses	-	5.05%
Energy at Transmission Periphery	-	2849 MU
Intra – State Losses	-	4.85%
Energy at Distribution Periphery	-	2710 MU
Distribution Losses	-	18.20%
Energy available for Sales	-	2217 MU

TBIA pointed out that MSEDCL is imposing a burden of Rs. 2700 Crore for effecting sale of 2217 MU power to reduce load shedding. Such costly power purchases seriously affect the ARR and heavily penalize efficient and honest industrial consumers, whereas the domestic and commercial category consumers who are rampantly using inverters are wasting power and enjoying reduced hours of load shedding and are also contributing to the higher technical and commercial losses.

Tata Motors submitted that the primary reason for shortfall in power purchase is due to lower power supply from MSPGCL and Ratnagiri Gas and Power Private Limited (RGPPL). MSPGCL generating stations are generating power at very low load factor, and

MSPGCL's performance is deteriorating year on year, which is directly affecting the cost of supply to consumers, as MSEDCL is purchasing costly power from traders to maintain the demand-supply gap and to minimize the load-shedding. In FY 2008-09, MSEDCL has purchased costly power of 2475 MU from traders at the rate of Rs. 7.76/kWh (i.e., Rs 1920 Crore). Tata Motors pointed out that the Commission has considered an incentive of Rs. 0.25 /kWh for generating stations that achieve PLF higher than 80% and suggested that the Commission should provide suitable guidelines to MSEDCL for recovery of differential cost of costly power vis-à-vis cost of power purchase from MSPGCL, which has been incurred due to the low PLF of MSPGCL's stations, by introducing penalty clause. Tata Motors added that to minimize the inefficiencies of MSPGCL, MSETCL and MSEDCL and thereby to reduce the burden on consumers through tariff hike, the entire process should have stage wise accountability and should have provision for Incentive/Penalty for performance and non-performance.

MSEDCL's Response

MSEDCL has two primary sources of firm power, viz., MSPGCL and Central Generating Stations. In addition to the above sources, MSEDCL purchases power from RGPPL, Power Trading companies, Power Exchanges and other sources such as non-conventional energy (NCE) sources including co-generation, wind power and surplus power from captive plants. MSEDCL has considered power purchase from all available sources. As the State is faced with severe demand-supply gap, MSEDCL has considered that all the available power would be consumed by its consumers. Therefore, it has not resorted to scheduling of the available sources on merit-order basis. For the purpose of the APR Petition, MSEDCL has not considered any source as costly or non-costly for FY 2008-09 as well as FY 2009-10 as the Commission has discontinued the ASC methodology through its Order dated June 20, 2008.

MSEDCL has projected power purchase expenses for FY 2008-09 based on actual generation, monthly fixed charges and variable charges for period April 2008 to December 2008, and has extrapolated energy availability and power purchase for the remaining three months from January 2009 to March 2009 on pro-rata basis and taking into consideration information available about availability of sources of generation. Power available from NCE sources is excluding small hydro generation from MSPGCL, which is included as a part of MSPGCL generation, while small hydro generation in the private sector has been considered as a separate source, from Dodson - I and II.

MSEDCL added that:

a. MSEDCL has considered average power purchase cost from MSPGCL as Rs 1.88 per unit as per projections of FY 2008-09 and FY 2009-10 based on estimated cost incurred by MSEDCL for FY 2008-09.

b. In exercise of the powers conferred under EA 2003, the Central Electricity Regulatory Commission (CERC) has circulated draft Regulations on Terms and Conditions for determination of tariff for the period FY 2009 to FY 2014, to be applicable from April 1, 2009 for stakeholders comments and Central Generating Stations like NTPC would be required to file the tariff Petition for MYT period starting from April 1, 2009 based on the finalized Tariff Regulations. Since MYT filing from NTPC stations is due and it is difficult for MSEDCL to estimate actual rate that would be approved by CERC, MSEDCL has considered average power purchase cost from NTPC stations based on estimated cost incurred by MSEDCL for FY 2008-09. Hence, MSEDCL has requested the Commission to allow any such change as a pass through in the form of FAC.

MSEDCL added that massive capacity addition has been planned in the coming years, which will significantly reduce power shortage situation in the State of Maharashtra.

Commission's Ruling

The Commission has taken note of the consumers' submissions and has accordingly revised the projections of category-wise sales, power purchase quantum available from various sources and the cost incurred for the same for FY 2009-10, as elaborated in Sections 4.3 and 4.5 of this Order, respectively. Based on the Commission's realistic projections of sales and power purchase, the power purchase from traders has been estimated as nil.

2.3. SALES FORECAST

Tata Motors submitted that the total sales of 58630 MU as estimated by MSEDCL for FY 2008-09, needs to be validated by considering actual data. MSEDCL has not furnished separate details of energy purchases and sales for areas like Pune, Navi Mumbai, and Thane where franchisee models have been implemented for mitigating load shedding and consumers are paying an additional charge in the form of 'Reliability Charge' for extra units arranged by Franchisee. Tata Motors requested the Commission to examine actual power purchased for mitigating the load shedding and suggested that the same should be deducted from the sales/purchase data furnished by MSEDCL in its Petition to avoid double burden due to non-consideration of revenue generated by applying reliability charge for extra power to the region of Pune, Navi Mumbai, Thane, etc.

Vidyut Urja Equipments Pvt. Ltd. (VUEL) stated that due to economic slowdown, sales growth of industries has been negative during last two quarters of FY 2008-09. VUEL pointed out that MSEDCL, in its sales projections, has indicated a negative 0.25% sales growth for HT I category in FY 2008-09, however, it has projected 8% sales growth for HT I Category during FY 2009-10, which is very high, unrealistic and misleading. Over estimation of the sales to the highest consuming category has led to skewing the sales projections of MSEDCL. VUEL submitted that with the economic slowdown, the sales growth of industrial consumers would be negative during FY 2009-10, and there could be substantial relief in load shedding to other consumers.

Bosch Limited (Bosch) submitted that the recession period is over and the Indian economy is targeting GDP growth in double digits. Due to uncertainty in US market, many Companies propose to invest in India, especially in Gujarat and Maharashtra. Bosch stated that the trend of increase in sale to HT industrial consumers for last 3 years is varying from 12% to 14% and many new projects are likely to be established in coming years, as a result of which, industrial consumption will increase to the tune of 15% to 18% or more. Hence, the sales forecast for HT category assumed as additional 2.69% over the last year for computing revenue is not realistic.

MSEDCL's Response

The annual sales of MSEDCL for FY 2008-09 reflects the effect of recession, and MSEDCL has taken care of economic slowdown in its sales projections. Despite having

CAGR of 9 % and 12% for FY 2008-09 and FY 2009-10, respectively, MSEDCL has projected a growth rate of 5.23% and 10% for FY 2008-09 and FY 2009-10, respectively.

Commission's Ruling

For FY 2008-09, the Commission obtained the details of category-wise sales for the period from April 2008 to March 2009, from MSEDCL, which works out to 57796 MU, which is lower than that estimated by MSEDCL in its APR Petition, by around 833 MU. For FY 2009-10, the Commission has generally considered the 3-year and 5-year CAGR for projecting the sales to different categories. The sales to HT Industrial category in FY 2009-10 have been projected as 22646 MU, as compared to 23425 MU projected by MSEDCL. The details of category-wise sales projections made by the Commission and the rationale for the same have been elaborated in Section 4.3 of this Order.

As regards the segregation of actual sales to consumers under the Interim Franchisee scheme, it will not be possible to segregate the sales on this account, however, the power purchase expenses and revenue from levy of additional Reliability Charges can be segregated. The Commission sought specific details from MSEDCL in this regard. Though MSEDCL has submitted the details of power purchase quantum and cost under the Interim Franchisee scheme, the corresponding revenue from levy of additional Reliability Charges has not been submitted. The Commission has not considered the power purchase expenses under the Interim Franchisee scheme for the purpose of provisional truing up, since the same has to be considered separately, and any under/over recovery of expenses and revenue has to be adjusted within the same region. In the absence of data on revenue, for the purpose of provisional truing up for FY 2008-09, the Commission has considered the revenue from Reliability Charges as equivalent to the power purchase expense under this head (Rs. 815 crore), and reduced the same while considering the total revenue, since the power purchase expense has also been reduced.

2.4. DISTRIBUTION LOSS

VIA submitted that MSEDCL has stated in its APR Petition that it has considered a realistic loss reduction target of 1% for FY 2009-10, and hence, the projection of loss reduction of 4% for estimating energy balance for FY 2008-09 is just a paper projection and is not realistic. VIA requested the Commission not to allow incentive of Rs. 284 Crore as sought by MSEDCL for reduction in distribution losses in FY 2007-08, instead, the Commission should impose penalty since MSEDCL has failed to achieve the Commission's directives to reduce 4% losses every year. VIA suggested that the Commission should compute the energy balance for FY 2008-09 and FY 2009-10 considering loss reduction target of 4%. The energy available for sale should be increased accordingly, thereby increasing the sales revenue.

Prayas submitted that MSEDCL has reduced distribution losses below the target level for FY 2007-08. However, MSEDCL appears to have chosen to be complacent for FY 2008-09 and has not brought about any further loss reduction in FY 2008-09. For FY 2009-10, MSEDCL has rather puzzlingly given-up on its efforts of loss reduction by projecting only 1% loss reduction under the pretext of 'its inability to achieve further incremental loss reduction beyond current loss levels', which is not a comforting sign. Prayas pointed out that once loss levels drop to 7% - 8%; it is technically difficult to reduce distribution losses any further. However, with 22.20% overall distribution loss and with many Circles still at loss levels of 30% and above, there is no reason for MSEDCL to give up its efforts for efficiency improvement. Prayas requested the Commission not to accept MSEDCL's submission and to direct MSEDCL to reduce losses as per the loss trajectory approved by the Commission. Prayas stated that by adhering to the Commission's directive of distribution loss reduction of 4%, the revenue requirement will reduce by approximately Rs. 970 Crore.

TBIA suggested that MSEDCL should adopt measures like High Voltage Distribution System (HVDS), PVC Insulated LT Conductor, installation of electronic meters at consumer end and at each outgoing feeder (22 kV/11 kV) for appreciable reduction of Aggregate Technical & Commercial (AT&C) losses. TBIA requested the Commission to apply circle-wise differential tariff based on distribution losses and suggested that circle-wise tariff should be based on 20% distribution losses as a base line. TBIA strongly objected to the targeted achievement of distribution losses as proposed by MSEDCL.

Tata Motors submitted that EHV consumption should be distinguished from total consumption for calculation of actual distribution losses, as EHV consumers are directly connected to the transmission network. Tata Motors pointed out that actual distribution losses are approx. 28.58%, however, MSEDCL have estimated only 22.20% losses, mainly due to incorrect consideration of generation of 80446 MU as against actual generation of 84187 MU as per the CEA Report.

Tata Motors made several suggestions for reduction of distribution losses (technical and commercial) by MSEDCL with a time bound action plan, such as inter-alia, Load balancing on Distribution Transformers, replacement of deteriorated conductors with optimum size, bifurcation of feeders having poor voltage regulation and heavily loaded, proper maintenance schedule and implementation, reactive Power management and encouragement, lowering of LT/HT ratio and implementation of High Voltage Distribution System (HVDS) to reduce technical losses, prevent theft, improve voltage profile and better consumer service, 100% Metering, Distribution transformer metering and energy audit, etc.

VIPL submitted that the lack of seriousness on the part of operational staff to maintain the distribution system in good working condition is translated into a lot of accidents, consumer complaints, local outages, breakdowns, etc. The impact of high distribution loss is absorbed by the consumers through high tariff rates. VIPL requested the Commission to consider normative distribution losses of 15% for determination of tariff rates.

MSEDCL's Response

Distribution loss achieved by MSEDCL during FY 2007-08 are realistic and as per audited accounts of MSEDCL for FY 2007-08. Regulation 19 of MERC Tariff Regulations provides for mechanism for pass through of gains or losses on account of controllable factors. The Commission in its APR Order dated June 20, 2008 has determined distribution loss for FY 2006-07 as 30.2% with a distribution loss reduction target of 4% for FY 2007-08, i.e., 26.2%. However, actual distribution loss for FY 2007-08 was 24.09%. Hence, over achievement of 2.11% translates to revenue of Rs 425 Crore.

MSEDCL is making rigorous efforts in various areas including metering and billing and is conscious of the fact that reduction in distribution losses will enable reduction in costs and increase in revenue, which will benefit the power sector in Maharashtra. To reduce the distribution losses, MSEDCL has taken the following initiatives:

- Monthly Energy Accounting at Division level / Feeder level / DTC level
- Giving target for each Division / Subdivision for LT loss reduction

- Photo Meter Reading
- DTC and Feeder Meters reading through Digital Camera. A new concept of Data Collection for Feeder wise Energy Audit
- Metering of all feeders completed
- Massive Theft Control Drive
- MSEDCL police stations for efficient handling of theft of energy/other cases.
- Checking of doubtful energy intensive consumers
- Capital investment plans
- Accelerated Power Development Reforms Programme (APDRP) schemes
- Registrar General, Bombay High Court has designated all courts of additional districts & Session Judge at district headquarters for trial of Cases under EA 2003
- Strict disciplinary action against delinquent employees.
- ACB cases dealt centrally at Head Office. In such cases, quick departmental action initiated against employees
- Speedy disposal of vigilance cases and strict action against defaulters
- Creation of more number of distribution franchisees in MSEDCL areas for improvement in metering, billing and revenue collection.

MSEDCL added that the Accounts of MSEDCL for FY 2008-09 are not yet finalized. Therefore, the reported mismatch with CEA Report cannot be reconciled. Moreover, projection for power purchase for FY 2008-09 is based on 10 months actuals and two months projections.

Commission's Ruling

The computation of actual distribution losses in FY 2007-08, computation of efficiency gains on this account, and the sharing of the same between MSEDCL and the consumers have been elaborated in Sections 3.2 and 3.18 of this Order. MSEDCL has been allowed to retain one-third of the efficiency gains, while one-third of the efficiency gains has been used to partly fund the refund of Regulatory Liability Charges, and the remaining one-third has been used to reduce the revenue requirement and hence, the tariffs payable by the consumers, as elaborated in the above-said Sections of the Order.

For FY 2009-10, the Commission has considered a distribution loss reduction trajectory of 4% for estimating the energy input requirement (i.e., a distribution loss of 18.2%), in accordance with the trajectory specified by the Commission in the MYT Order for MSEDCL in Case No. 65 of 2006. The Commission's detailed analysis and ruling on the issue of distribution loss to be considered for FY 2009-10 has been elaborated in Sections 4.1.1 and 4.4 of this Order.

2.5. OPERATION AND MAINTENANCE EXPENSES

VIA objected to the higher operation and maintenance expenses projected by MSEDCL and submitted that the A&G expenses includes conveyance and travel expenses, which should be controlled by the licensee. VIA submitted that the Commission should not allow 100% pass through of controllable expenses under the MYT regime, but separate out controllable and uncontrollable expenses based on MERC Tariff Regulations and allow pass through of 1/3rd amount of excess controllable expenses after proper scrutiny of the expenses.

VIA submitted that increase in employee expenses on account of provision for liability in respect of earned leave encashment and increase in terminal benefit such as gratuity, provident fund, etc., is only a provision and the provision in respect of past liability can be adjusted against carry forward surplus. This is only a provision and does not entitle any cash outgo to MSEDCL. VIA requested the Commission not to load the consumers' tariff with unwanted expenditure, and introduce a mechanism to control these expenses.

VIA submitted that the projected employee expenses of Rs. 2602 Crore for FY 2009-10, is almost 39% of the total projected expenditure of 6646 Crore and is about 60% of Rs. 4328 Crore approved by the Commission. VIA proposed that the employee expenditure has to be curtailed and only efficient employees should be retained and the working hours should be monitored by keeping log books and attendance register. The Commission should issue a code of conduct for employees, which should be monitored closely by a senior officer.

Prayas submitted that the rationale behind the MYT regime is to project expenses based on realistic conditions and to improvise on efficiency to achieve the target. Merely having the cost as audited entry in books of accounts is not enough to establish prudence of such expenses. Further, actual expenses for FY 2008-09 and FY 2009-10 are likely to be much lower than those projected by MSEDCL. O&M expenses by their very nature are most easy to control, by introducing efficiency improvements and cost reduction measures. Hence, MSEDCL's request seeking pass through of all O&M expenses is totally baseless and against the MYT principles and MERC Tariff Regulations. Prayas objected to MSEDCL's proposal of 11% and 10.5% increase in its employee expenses and other O&M expenses, since it is much higher than the inflation rate or any other benchmark. TBIA submitted that higher employee expenses without improved efficiency and enhanced productivity should not be allowed.

Tata Motors submitted that the O&M expenses are of controllable nature and can be controlled by MSEDCL by taking various initiatives like performance based wage system. Tata Motors requested the Commission not to allow high O&M expenses and to bring parity in the expenses by comparing the expenses of other Utilities/Distribution Companies and also to co-relate it to their performance. Tata Motors further submitted that MSEDCL has projected very high increase in overtime expenses for its employees. Expenses towards Leave Encashment, Dearness Allowance and A & G Expenses are also projected on higher side in comparison to the change in Consumer Price Index of Industrial Workers for FY 2008-09. Tata Motors stated that the estimate towards the pay revision considered by MSEDCL seems to be much higher as compared to present Industrial and IT pay revision.

Many consumers submitted that MSEDCL in its Tariff Proposal has indicated that as compared to FY 2007-08, Employee Cost would increase by 50%; Administration Cost would increase by 35%, and the Bad Debts would increase by 40%, while the collection efficiency is reduced to 94.87%. This clearly shows that consumers will have to pay for higher Employee & Administration costs and lower efficiencies. MGP objected to the proposed higher O&M expenses and submitted that maximum 7% rise should be allowed for A&G expenses and R&M expenses.

ISPAT stated that MSEDCL has totally ignored the MYT approach and its objectives since all the expenses have been termed as uncontrollable and the deviations are being passed on to the consumers without considering any inefficiency in performance.

MSEDCL's Response

MSEDCL is a new organization born out of restructuring of erstwhile MSEB under the provisions of Section 131 of EA 2003. The Provisional Transfer Scheme is yet to be finalized by the State Government. Under these circumstances and considering the inherent involved nature of restructuring exercise of a SEB, MSEDCL is in a transition period and still grappling with the issues of transition. MSEDCL has recovered Rs. 508 Crore more than what has been approved by the Commission, which is indicative of MSEDCL's commitment to improve its efficiency. MSEDCL requests that consumer should not only look at the business of MSEDCL from controllable/uncontrollable paradigm but also from the view that it has inherited a legacy, which was not in a good shape.

As prescribed by the Commission in its MERC Tariff Regulations, MSEDCL or any other Distribution Licensee in the State is entitled for truing up of expenditure and revenue of the past period and adjustment of any shortfall or excess in either of these (expenditure & revenue income) is permissible in subsequent year, subject to other binding conditions prescribed in the said Regulations. MSEDCL, in accordance with the said provisions, has proposed truing up for FY 2007-08 based on the Audited Accounts.

It is a normal accounting practice to make provisions for expected expenditure during any Financial Year. In the event of non-utilization of provisioning, the balance is automatically carried over to the next financial year based on actual cash outgo. Therefore, true-up of liability in respect of leave encashment of Rs. 36 Crore is based on sound accounting principle to.

Increase in Employee Expenses for FY 2008-09 and FY 2009-10 as compared to expenses approved by the Commission is mainly due to the following reasons:

- Increase in 'Dearness Allowance' (DA) and 'Provident Fund Contribution' - Dearness Allowance is computed as a percentage of the basic salary, and is increased twice a year. Considering trend of inflation, 11% increase in DA has been considered during 6 months period.
- Provision for revision of pay scale of MSEDCL employees is due from April 1, 2008 - Rs.364 Crore and Rs. 422 Crore have been estimated on this account for FY 2008-09 and FY 2009-10, respectively.

Commission's Ruling

The Commission's agrees with the submissions made by Prayas and other stakeholders regarding the steep increase in O&M expenses sought by MSEDCL, despite the existence of a Multi-Year Tariff framework, wherein the O&M expenses are considered as controllable expenses and are allowed on certain normative basis. However, even though the O&M expenses have been approved by the Commission for each year of the Control Period, wherein, by and large, MSEDCL's projections have been accepted, MSEDCL has projected significant further annual increase in the O&M expenses for each year in the Control Period. If this increase in O&M expenses is allowed as sought by MSEDCL, then the MYT framework created by the MERC in its MYT Orders will have no sanctity. Hence, the Commission rules that for FY 2008-09 and FY 2009-10, the O&M expenses allowed by the Commission for FY 2007-08 under the final truing up for FY 2007-08, after considering the base as audited expenses for FY 2006-07, will be considered as the base and increase will be allowed strictly as per the CPI/WPI growth as applicable, which incidentally, is higher than the growth rate projected by the Utilities in their respective original Petitions. The variation between allowed expenses and actual expenses will be considered as a controllable gain/loss, and will be shared between the Utilities and the respective consumers, in accordance with Regulation 19 of the MERC (Terms and Conditions of Tariff) Regulations, 2005.

The Commission's detailed analysis and computations in this regard for FY 2007-08 are elaborated in Section 3.4 of this Order, and for FY 2008-09 and FY 2009-10, the detailed analysis and computations are elaborated in Section 4.6 of this Order.

2.6. DEPRECIATION

VIA submitted that consumers' contribution should be deducted from the fixed assets while calculating the depreciation on the fixed assets. VIA referred to Regulation 74.3 of MERC Tariff Regulations which states, "*where actual amount of loan repayment in any financial year exceeds the amount of depreciation allowable under Regulation 76.4.1, the Distribution Licensee shall be allowed an advance against depreciation for the difference between actual amount of such repayment and the allowable depreciation for such financial year:*

Provided that the advance against depreciation shall be restricted to 1/10th of the principal amount of loans that are to be repaid in such financial year minus the amount of depreciation allowable under Regulation 76.4.1".

VIA submitted that MSEDCL is not following Regulation 74.3 of MERC Tariff Regulations while claiming AAD, and hence, the correct computation of AAD is required to be loaded in ARR.

MSEDCL's Response

MSEDCL has not considered any assets created from consumer contribution. However, it has received Grants from various sources for creation of assets and it has considered the same for calculation of Depreciation and excluded the same while calculating RoE as per MERC Tariff Regulations. The Table showing summary of deduction of Grants is shown below:

Rs. Crore

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Total Capitalization	1107.78	2859.59	5821.45
Grants	90.01	209.62	341.98
Net Asset Capitalization	1017.77	2649.97	5479.47

MSEDCL is aware of various Regulations and has calculated depreciation based on the depreciation rates prescribed by the Commission. It has also repaid principal loan amount as per outstanding loan repayment schedule. Moreover, MSEDCL has also excluded repayment on account of Rs. 1300 Crore short-term REC loan from calculation of AAD. The calculation of AAD is shown below:

Rs. Crore

Particulars	FY 2007-08
Depreciation for the year	408.05
Loan repayment for the year	428.94
Excess of cumulative loan repayment over cumulative depreciation (AAD)	20.89

Since Rs. 20.89 Crore claimed as AAD is less than 1/10th of Rs. 428.94 Crore, hence, MSEDCL has requested true up of Rs. 20.89 Crore.

Commission's Ruling

The Commission has computed depreciation and Advance against Depreciation (AAD) in accordance with the MERC Tariff Regulations. The detailed computations in this regard are elaborated in Sections 3.6 and 3.8 for FY 2007-08 and in Sections 4.8 and 4.10 for

FY 2008-09 and FY 2009-10 of this Order, based on the revised level of capitalisation considered by the Commission.

2.7. LOAD SHEDDING

VIA submitted that Vidarbha region is the biggest power producer and about 40% energy required in the State is being generated in Vidarbha. Consequently, Vidarbha is subjected to pollution, and coal, other minerals, from Vidarbha area are being utilized for generation purposes. Further, the power consumption in Vidarbha region is hardly 25% of the total generation, and the balance power is being transferred to the Western part of the State. The corridors through which power is being transferred to Western part of the State are overloaded, adding more transmission losses to the system. Also, it is difficult to add more generation in Vidarbha area, and it is technically infeasible to accommodate and provide open access to the small power generating stations coming up in Vidarbha, since the load in Vidarbha region is very less compared to the loading of the transmission and distribution lines, which cannot accommodate more power. VIA requested the Commission to direct MSEDCL to withdraw load shedding in Vidarbha region.

TBIA suggested that the formula and protocol of load shedding should be revisited based on the availability of power and additional power purchase. Shri Ponrathnam and many other objectors also opposed the concept of load shedding and requested the Commission to eliminate the load shedding from Maharashtra.

MSEDCL's Response

Load shedding not being a part of the APR Petition for FY 2008-09, the same can be taken up at appropriate time in appropriate proceedings.

Commission's Ruling

The regulatory process undertaken by the Commission is on the APR Petition filed by MSEDCL for FY 2008-09, and load shedding is not one of the subject matters under the Commission's consideration in this Petition.

2.8. CROSS-SUBSIDY

VIA submitted that MSEDCL has proposed to provide subsidized tariff to certain consumer categories by loading other categories beyond the sustainable limit and has proposed to increase the cross subsidies instead of reducing the same, thereby violating the provisions of EA 2003. VIA stated that MSEDCL is a commercial organization and there is no provision for social obligations being fulfilled by the licensee, like providing subsidized tariff to certain class of consumer, and this obligation lies with the State Government under Section 65 of the EA 2003, which may grant subsidy to any class of consumers by making advance payment to the licensee equivalent to the amount of revenue loss.

VIA suggested that the Commission should revise the tariff in such a way that the tariff converge towards the cost of supply and the cross subsidies are progressively reduced as has been done by the Commission in its past Tariff Orders. VIA added that MSEDCL has proposed unrealistic rise in the tariff and has even proposed increase in intra-category cross subsidies, i.e., domestic category rates are proposed from Rs. 1.58 / kWh to Rs. 9.21 / kWh and non-domestic rates are proposed from Rs. 4.66 / kWh to Rs. 11.10 / kWh. The intra-category cross subsidies should be reduced.

TBIA pointed out that the State Government is providing subsidies to agricultural and power loom consumers. However, if cost reflective tariffs are provided to the industries, there may not be any need to provide subsidies to power loom consumers. In every Tariff Proposal, MSEDCL has not been proposing any increase in the tariff for agriculture and PWW consumers and the Commission has also not increased their tariffs. TBIA requested the Commission to apply appropriate tariff to all the consumers as per Tariff Policy to reach tariff levels within ± 20% of average cost of supply. TBIA submitted that domestic and commercial consumers also have the paying capacity, in fact, paying capacity of industrial consumers has been weakened due to continuous steep increase in tariffs in past Tariff Orders and slowdown of the global economy. TBIA suggested that MSEDCL may approach the State Government for providing subsidies to agriculture and PWW consumers.

Tata Motors submitted that the tariff for HT industries is loaded with heavy cross-subsidy. Further, average cost of supply considered by MSEDCL for FY 2009-10 is exorbitantly high and incorrect considering ARR requirement for FY 2009-10. Navi

Mumbai Mall Owners Welfare Association stated that complete removal of cross subsidy should be achieved thereby reducing the tariff so as to reflect actual cost of supply.

Garware Polyster Limited submitted that continuous industry provides stability to grid during off peak hours, and requested the Commission to adopt the cost to serve principle and submitted that if cost to serve principle is adopted, tariff to continuous industry category would be reduced.

MSEDCL's Response

The trajectory of cross-subsidy reduction in Maharashtra has been too steep, i.e., the differential between the tariff of subsidizing categories and tariff for subsidized categories has been reduced at a pace that is more rapid than desirable. MSEDCL further submitted that the TP stipulates that cross-subsidy levels should be within the range of ± 20% of the average cost of supply latest by the end of year 2010-11. The TP has clearly allowed more time for the States to reduce the cross-subsidy.

MSEDCL has drafted the tariff proposal for recovering the revenue gap and attain revenue neutrality. Cross-subsidy level should not only be looked at from the perspective of average billing rate but also looked at with a much larger perspective of condition of supply, and load shedding prevailing in the State.

Commission's Ruling

Cross-subsidy has been in existence historically for several years, and the Commission has been attempting to reduce the cross-subsidy between the consumer categories over the last few years, by rationalising the tariff for subsidised categories and suitably adjusting the tariff for subsidising categories, vis-à-vis the prevailing average cost of supply, while at the same time, trying to ensure that there is no tariff shock to any consumer category. However, since the average cost of supply has been increasing steadily, the average tariff increase required to meet the revenue gap is also increasing, and hence, the subsidising consumers have not been able to experience tariff reduction in absolute terms.

As regards increase in agricultural tariffs, the Commission is of the view that the tariffs will have to be increased gradually, in order to reduce the cross-subsidy; however, the tariffs have to be linked to the quality and reliability of supply being given to the agricultural consumers. There has been only marginal improvement in the quantum of electricity being supplied to agricultural consumers, since agricultural consumers continue to receive supply only for around 8 to 10 hours daily. Under such circumstances, the Commission is of the view that it may not be appropriate to increase the agricultural tariffs at this stage any further.

The computation of average cost of supply and the cross-subsidy reduction undertaken by the Commission are elaborated in Section 5.4 of this Order, including the Commission's Tariff Philosophy. It will be seen therefrom that the Commission has reduced the cross-subsidy levels for most consumer categories, since the reference tariff and cross-subsidy levels have to be considered based on the APR Order for FY 2007-08. The Commission will strive to achieve the target of $\pm$ 20% of ACOS specified by the Tariff Policy to be achieved by the year 2010-11.

2.9. CONSUMER CATEGORISATION AND TARIFFS

VIA requested the Commission to provide concessional tariff to consumers in Vidarbha since the resources like water and coal, which should have been utilized by the people of Vidarbha is being utilized for power generation, which is supplied to western part of Maharashtra. VIA added that the tariff can be differentiated based on geographical position of the area as per Section 62(3) of EA 2003.

Prayas proposed that a new LT General category should be created, since there is a need to bring uniformity and rationalization in the LT tariff for various sub-categories. Prayas pointed out that in lower bracket of consumption (0-300 units) the LT residential tariff is lower than that of LT commercial and industrial categories, but as the consumption slab increases, residential tariff becomes higher than the commercial or industrial tariff. Prayas suggested that the tariff for LT general category should be such that the tariff should increase as the consumption increases. The higher consuming group within the same category should subsidize the lower consumption group.

TBIA submitted that MIDC feeders have hardly 1% to 2% distribution losses, and requested the Commission to segregate and fix separate tariff for MIDC areas.

Many consumers suggested that LT Domestic and Commercial category below 20 kW should be clubbed under one new category of LT General for tariff determination, and the rate hike in these slabs should be restricted to increase in rate of inflation only and under no circumstances, should the inefficiencies of MSEDCL be loaded on these consumers.

Sayagyi U Ba Khin Memorial Trust (Vipassana International Academy) submitted that they are running a charitable trust, and requested the Commission to change the billing from commercial tariff to non-commercial tariff.

Sant Gadge Baba Amravati University submitted that it is billed under HT II Commercial tariff and requested for a separate tariff category, since an University cannot be equated with commercial complexes. Bhikusa Paper requested for concessional tariff since the paper industry is mainly contributing for maintaining sustainable environment by recycling waste paper, which reduces environmental pollution.

Garrison Engineers submitted that the Defence residential area and Defence workshops are getting bulk HT supply from MSEDCL under HT VI category. The Air Force Depot at this location is meant for carrying repairs on Aircrafts, vehicles, plants and machineries, which are ultimately deployed for the country's defense. These are not profit-oriented outfits. They proposed that the electricity required for Defence establishments may be suitably charged under concessional tariff.

University of Pune, Dr. Babasaheb Ambedkar Vaidyakiya Pratisthan, and Dr. Babasaheb Ambedkar Technological University, Lonere, submitted that since June 2008 they are billed under HT II Commercial tariff and requested the Commission to change the tariff category to HT I since University is a non-commercial organization.

Shri Kisan Mehta objected for any new category as suggested by MSEDCL for LT Flour Mills, LT Power loom and LT cold storage (Agriculture produce) as there is no provision in the EA 2003 for creation of such categories.

ISPAT suggested that a new consumer category should be introduced considering lower cost of power supply incurred for supply to consumers connected at higher voltage level and for continuous process industries. ISPAT submitted that MSEDCL should provide special consideration as such consumers have better load curve with better system utilisation. Solapur Oil Mill Owners Association requested for creation of new sub category for LT oil mills as connected load of oil mills is not equivalent to the consumption.

Shri Pratap Hogade proposed to create separate categories for power looms, hospitals, educational institutions, charitable institutions/trusts. Gajanan Maharaj Trust, Shegaon, and Vedant Cultural Foundation objected to the billing at commercial rate as they were not running any commercial business and requested the Commission for special tariff category.

Bharti Airtel Limited (Airtel) submitted that MSEDCL's proposal to create a specific exemption for 'mobile towers and commercial broadcasting towers and all other similar activities', conveys MSEDCL's admission that the electricity consumption for such activities falls within the definition of 'industry' as envisaged under IT and ITES Policy of Government of Maharashtra. Otherwise, there was no requirement for MSEDCL to seek a specific exception for the first time in 2009. Airtel submitted that MSEDCL has been wrongfully denying 'industry tariff' to this Objector, and illegally charging commercial tariff for mobile towers and commercial broadcasting and other similar activities, and MSEDCL needs to refund all such illegal levies and excess collection.

MSEDCL's Response

The issue regarding region-wise differential tariffs has been examined by the Commission in the past and the Commission has given its views, which being logical and reasonable, needs no review.

MSEDCL submitted that MSEDCL has requested the Commission for introduction of New LT V sub-categories, covering the consumers of LT Flour Mills, LT Power loom and LT cold storage (Agriculture produce) and the tariff fixation could be considered lower than the first tariff slab of LT-V Industrial. The rationale for introduction of these categories has been elaborated in MSEDCL's Supplementary Submission, which has been published along with the APR Petition.

Commission's Ruling

As regards VIA's suggestion that the Commission should use the criterion of 'geographical position of any area' to differentiate between consumers situated in Vidarbha region and consumers situated in other parts of MSEDCL's licence area, the Commission is of the view that similar suggestions have been made in the past also. If the logic of location of resources is extended further, then Western Maharashtra may well say that hydro resources are located in their part of the State, and a major part of the revenue is coming from Western Maharashtra, hence, they should get preferential treatment. The Commission has to however, consider the State and MSEDCL's licence area as a whole, for determining tariffs.

As regards the contentions of some consumers that they are not undertaking any 'commercial' activity or activities for making 'profit' within their premises, and hence, they should not be classified under the 'commercial' category, it is clarified that the 'commercial' category actually refers to all 'non-residential, non-industrial' purpose, or which has not been classified under any other specific category. For instance, all office establishments (whether Government or private), hospitals, educational institutions, airports, bus-stands, multiplexes, shopping malls, small and big stores, automobile showrooms, etc., are all covered under this categorisation. Clearly, they cannot be termed as residential or industrial. In order to bring clarity in this regard, the Commission has renamed this category as 'non-residential or commercial' in this Order.

A similar impression is conveyed as regards the 'Industry' categorisation, with the Commission receiving representations from the hotel industry, leisure and travel industry, etc., stating that they have also been classified as 'industry' for the purpose of taxation and/or other benefits being extended by the Central Government or State Government, and hence, they should also be classified as 'industry' for the purpose of tariff determination. In this regard, it is clarified that classification under Industry for tax purposes and other purposes by the Central or State Government shall apply to matters within their jurisdiction and have no bearing on the tariffs determined by the Commission under the EA 2003, and the import of the categorisation under Industry under other specific laws cannot be applied to seek relief under other statutes. Broadly, the categorisation of 'Industry' is applicable to such activities, which entail 'manufacture'.

While appreciating the anxiety of different classes of consumers to reduce their payments on account of use of electricity, the reasonable costs incurred by the Utilities have to be met, and irrespective of the number of consumer categories or the sub-classification considered in accordance with the provisions of Section 62(3) of the EA 2003, the cross-subsidies have to be reduced gradually and the tariff differential between categories cannot be very significant in the long-run.

The anomaly highlighted by Prayas in slab tariff between residential category and commercial/non-residential category has been addressed to a large extent in the revised tariffs.

As regards creation of new categories for flour mills and power looms, the Commission agrees with the objector and has already ruled on this prayer of MSEDCL in the previous APR Order. The Commission is of the view that creating additional sub-categories for specific industrial segments like power loom and flour mills is counter-productive to the Commission's overall philosophy of rationalisation of consumer categories, more so, when the Commission has taken a conscious decision in the past to merge these categories into a single industrial category.

As regards MSEDCL's proposal to classify certain telecom towers, etc., under commercial category, irrespective of whether they were covered under the IT & ITES Policy of the Government of Maharashtra, no rationale has been submitted by MSEDCL for this specific proposal. The Commission had consciously included IT and IT enabled Services (IT & ITES) under industrial category (HT and LT as applicable) in the Tariff Order for the erstwhile MSEB in 2004. Since then, the IT & ITES category continues to be charged under industrial tariffs. In the existing Tariff Schedule of MSEDCL as well as the approved Tariff Schedule for the distribution licensees in Mumbai issued in June 2009, the Commission has included IT & ITES category under industrial category. Hence, the Commission does not agree with MSEDCL's proposal in this regard and rules that IT & ITeS will be charged at industrial rates (HT and LT rates, as applicable), without getting into the details of whether mobile towers and commercial broadcasting towers and all other similar activities are covered under the Government of Maharashtra Policy on IT & ITeS.

As regards Airtel's contentions that MSEDCL has recovered excess amounts from Airtel in the past due to wrong classification, it may seek redressal at the appropriate forum.

2.10. TIME OF DAY (TOD) TARIFF

VIA and several other objectors submitted that TOD incentives should not be removed, else the consumers who have shifted working hours to night hours may opt to consume power in day time/peak hours and the load curve will be adversely affected and the peak demand may increase.

Tata Motors submitted that the commission has introduced ToD tariff as a critical tool for Demand Side Management. The main intention is to shift the consumption of peak period to off peak period and thereby to flatten the load curve. From the load curves of FY 2003-04 and onwards, it is clear that off- peak hours consumption has increased compared to that of FY 2001-02. This is achieved mainly due to the shifting of production facility and thereby power demand by Industry from peak hours to off peak hours to avail the benefit of incentivized tariffs. Tata Motors added that if off-peak hours incentive are removed, industry will not take any interest to run their plants in night hours and shift production to day time, thereby increasing MSEDCL demand by around 1500-2000 MW.

Tata Motors submitted that incentive during off-peak hours is not only beneficial for consumers but also beneficial to MSEDCL as

(a) It reduces secondary fuel consumption of generating station hence FAC will reduce.
(b) It reduces loading on distribution network during peak hours.
(c) It reduces distribution losses.

Tata Motors pointed out that due to flattening of load curves, power purchase cost will also get reduced as costly power is not required to be purchased during peak hours to meet the higher demand and thereby reducing the load-shedding if it exists. In the existing deficit scenario in Maharashtra, the peak hour power is significantly costlier than off-peak power and availability of power in peak hours is also scarce.

MSEDCL's Response

The Commission in the matter of "Revision of tariff applicable to various categories of consumers of Maharashtra State Electricity Board with effect from 01.05.2000" issued an Order dated April 28, 2000 wherein is the Commission prescribed as under:

> "*The Commission has introduced the Time of Day (TOD) tariff for HT industrial (HTP - I & HTP - II) consumers. The Commission intends to use the TOD tariff as a critical tool for Demand Side Management. The Commission expects HT industrial consumers to avail of this facility by shifting consumption from peak period to off peak period. This will not only benefit the industrial consumers but also help the MSEB in flattening the load curve*.
>
> *The Commission has decided to give incentive to all HTP-I and HTP-II consumers availing of TOD tariff and having power factor above 0.95 by providing a rebate of 1% of the energy bill for every 1% improvement in the power factor*."

Further, in the matter of determination of tariff applicable to various categories of consumers of the Maharashtra State Electricity Board in Case No.1 of 1999 under Para 1.38 "Optimization of MSEB's Generation", the Commission has stated as follows:

> *"Due to this pattern of use, there are times in the evening and before noon, when activity level in the society is high, and the demand for electricity increases compared to other times of the day. Against this, in the night (10 pm to 6 am), the sleeping hours require a low demand for electricity. Therefore, many power stations are required to be closed or operated at lower capacity.*
>
> *The tariff should give incentive for shifting demand to lean period and penalize in peak period. Further the load factor (KWH per KW of demand) also needs to be improved. This can be done either by load factor incentive or through rational demand charges. Hence, the Commission provides for Time of Day tariff (TOD) and also rationalizes, Demand charges for High Tension Industrial consumers (HTP I and II categories) The Commission expects a shift and reduction in the HT industrial demand by about 250 to 500 MW. This should improve the PLF of the MSEB's thermal power stations by 2 to 4 percentage points (still lower than plant availability). Though there will be a reduction in Demand charge revenue, the net gain will be higher on account of lesser load -shedding /lesser purchase of*

expensive power/lesser backing-down and also additional revenue earned by sale of additional units during the night lean period."

The above Order indicates that the main criteria for introduction of TOD incentive was for effective utilization of generation and to prevent backing down of generation as well as removal of mismatch in demand supply during peak and non-peak hours. However, in the present situation there is load shedding being carried out even in non-peak hours and the generation stations are not being backed down due to increase in demand in the non-peak hours. Thus it is proposed that due to shortage of power practically during all the hours of the day including non-peak hours, the incentive provided by the Commission is required to be removed till the power supply situation improves.

Commission's Ruling

As regards MSEDCL's proposal to remove the rebate given for ToD consumption during night off-peak hours, the Commission is of the view that Time of Day tariffs were introduced as a Demand Side Management measure to flatten the load curve, and over the years, the tariff differential between peak and off-peak hours has been increased, which has achieved good results. The Commission is of the view that most of the load that could have been shifted to off-peak hours would have already shifted. However, if the off-peak rebate during night off-peak hours is removed, then there is a danger of this load shifting either to day off-peak, where there is no penal tariff, or to evening peak hours, where there is peak tariff, depending on the economics of operation of the particular consumer. It should be appreciated that night operations do involve certain hardships for the consumers, and if sufficient incentive is not given/retained, the load may shift to other hours of the day. Further, the Commission is unable to appreciate MSEDCL's contention that night off-peak consumption should not be encouraged, since load shedding is being undertaken even during these hours. Firstly, the reduction/elimination of load shedding at all hours of the day is the responsibility and duty cast upon MSEDCL. Also, there is no denying that the load during night off-peak hours is the lowest as compared to other time periods of the day, even after the shift in the load on account of the ToD rebates. More importantly, the rates for power purchase during night off-peak hours are much lower than that prevailing for other time slots during the day. Hence, the Commission is of the view that night off-peak consumption should continue to be encouraged, and hence, the ToD rebate during night off-peak hours is retained at existing levels.

2.11. REMOVAL OF INCENTIVES AND REBATES

VIA, TBIA, VIPL, Bharti Airtel, and many others objected to the proposed removal of load factor incentive. They submitted that in case the incentive is removed, the industries shall stop taking supply from MSEDCL and may opt to purchase power from other source or may opt for captive generation because such industries are always welcomed by any Generating Company due to high load factor, which improves generator efficiency. They requested the Commission not to remove the load factor incentive.

On the contrary, Bhikusa Paper and Marathwada Association of Small Scale Industries and Agriculture requested the Commission to increase the load factor incentive from 7% to 9% - 10%, to improve the efficiency of distribution system.

MSEDCL's Response

The Commission, in the Tariff Order dated June 20, 2008 in Case No. 72 of 2007 has retained the load factor incentive. MSEDCL submitted that the Load Factor Incentive specified by the Commission incentives higher consumption. However, in an acute supply shortage scenario, there is a need to restrict the consumption rather than encouraging it, at least till the supply availability improves. The Load Factor Incentive is an appropriate tool in surplus situation and not in a deficit situation. Accordingly, MSEDCL has proposed to disallow any incentive on account of load factor.

Commission's Ruling

The Commission is of the view that contrary to MSEDCL's submission, the existence of load factor incentive does not incentivise higher consumption per se, rather, it incentivises better utilisation of the contract demand. In order to maximise the load factor incentive, the eligible consumers will have to plan their Contract Demand in such a fashion that they are able to maximise their utilisation of the same, which will eventually result in reducing the burden on MSEDCL's system, as the consumers will shift load to different hours of the day and thus, be able to reduce their Contract Demand. This will also enable MSEDCL to serve a steadier load, rather than a fluctuating one. Hence, the Commission rejects MSEDCL's request to remove the load factor incentive.

2.12. TARIFF RELATED ISSUES

VIA and many builder associations in the State submitted that MSEDCL is not following the definition of temporary supply provided in the MERC Supply Code Regulations and is charging temporary tariff to all the consumers who are using the supply for construction purposes, even though there is an agreement of 2 years for such supply with the licensee. They requested the Commission to clarify that all the electricity supply to construction activity are not termed as temporary supply but it may be considered as a commercial category and non-domestic tariff may be applied to such consumers on LT supply and commercial tariff may be applied for HT supply.

VIA requested the Commission to reduce the gap in tariff rates and clearly define the following categories:

i) Temporary & permanent supply
ii) HT Industries and HT commercial
iii) HT Residential complex and commercial complex
iv) BPL category
v) Domestic and non Domestic

Vidarbha Industrial Power Limited (VIPL) submitted that electricity consumption for construction of power project is being billed under Temporary tariff category. The tariff under temporary category being the highest among all categories, it adds to the huge overheads already involved in the construction of power projects. VIPL proposed that in view of supply shortage scenario in Maharashtra, it would be appropriate if the construction of power projects is encouraged and supported by providing electricity at comparatively cheaper tariff rate, i.e., under industrial tariff category.

Navi Mumbai Mall Owners Welfare Association pointed out that Section 63 of EA 2003 clearly stipulates that the concerned authorities shall not give any undue preference to any one class or classes of consumers. However, this preferential treatment of customers and different rates of application of tariff to customers has lead to an imperfect and imbalanced situation resulting in severe losses to revenue and employment generating customers, who are saddled with the burden of excessive and unfair tariff resulting in closure and much worse shifting of business to other States due to erratic power supply and exorbitant rates for supply of the same.

Arvind Cotspin, Association of Indian Forging Industry and many others objected to the proposal for levy of extra charges on consumers connected to Express Feeder. They added that being HT consumers, they expect continuous power supply round the clock, which at present is not available. Due to interruptions, the maintenance cost on electrical/electronic gadgets increases considerably.

Chamber of Small Industry Associations (COSIA) suggested that there should not be any increase in the rates for the industrial consumers, particularly for the Micro and Small Industries. Further, they suggested reducing existing tariff by 5%.

Nashik Municipal Corporation (NMC) submitted that pumping of water for drinking purpose is an essential service for survival of human beings, and sewage treatment is also equally important from hygiene point of view and for environment protection, and requested the Commission to reduce the tariff rates for water works and sewage category to be at par with agriculture category tariff. Further, NMC requested the Commission to include Sewage Treatment Plants (STP) in PWW category only as these STP plant treats the sewage and dispose of efficiently without creating water and environment pollution. In other States, this category is specifically mentioned as water works and sewage treatment plants.

Kolhapur District Dalap Kandap Girni Malak Sangh proposed that agriculture tariff should be made applicable for flour mills. Shri Ponrathnam proposed that uniform tariff should be introduced throughout the Country.

Bharti Airtel submitted that there will be a tariff shock, in case MSEDCL's proposal for average tariff increase of over 35% is accepted, which is contrary to the Judgments of the Appellate Tribunal for Electricity in this matter, which states that no consumer category should be subjected to a tariff shock.

MSEDCL's Response

MSEDCL submitted that the total revenue gap after considering revenue shortfall for FY 2008-09 is Rs. 8419 Crore, which requires an average increase of 32.17% in existing tariff. The revenue gap needs to be recovered to maintain viability of business. Further, the revenue gap emanating out of MSEDCL's operations is only Rs. 4987 Crore, which requires a tariff increase of 19.05%. Further, tariff increase would have been higher, if the distribution losses had not been reduced by MSEDCL. Also, the tariff increase requirement on account of estimated revenue gap in FY 2009-10 is very less as compared to the total tariff hike. Requirement of other pending claims, truing up for FY 2007-08 and the provisional truing up for FY 2008-09 forms a significant portion of total tariff increase.

MSEDCL submitted that it is compelled to propose increase in tariff in order to supply reliable and quality power to its customers. MSEDCL has proposed a hike of 49 % for HT-1 Category consumers based on purchase of power from MSPGCL at Rs. 2.45 per unit as taken from MSPGCL's Petition. However MSPGCL has revised its ARR cost to Rs. 2.29 per unit. Further, net generation (estimated by MSEDCL) that would be available from MSPGCL also differs from the final estimated net generation by MSPGCL in its revised Petition. The Commission has therefore, directed MSEDCL to illustrate the impact of such revision in the power purchase cost, which MSEDCL has submitted in its Supplementary Submission. The net impact (for illustration purposes) has been estimated as Rs. 644 Crore and it has been stated in the Supplementary Submission that such estimated reduction in the revenue requirement may be considered for lowering the proposed tariff of Industrial consumers, which would approximately result in average 10% reduction in proposed tariff as applicable to Industrial consumers.

The Commission is the competent authority for approving the tariff proposal submitted by MSEDCL. The Order of the Commission in this regard will be binding on both MSEDCL and the consumers. Exclusive comparison of prevailing electricity tariff in the neighbouring States with that of MSEDCL would not be logical for obvious reasons, unless the other important facts leading to the determination of tariff are also compared.

MSEDCL submitted that the construction activity being temporary in nature, consumers engaged in the construction activity and obtaining power supply from MSEDCL are accordingly categorized and levied Temporary Supply tariff.

MSEDCL submitted that consumers connected to express feeders are supplied un-interrupted power, whereas consumers connected to non-express feeders are subjected to one day staggered load shedding each week. Therefore, MSEDCL has proposed that consumers connected on express feeders should pay 15% more than HT-I category consumers not connected on express feeders. This charge will not be over and above what is proposed in the Tariff Schedule for HT –I Category. Therefore, it is not a surcharge. It is primarily intended for consumers other than HT-I Industrial (Express) consumers willing to shift from Non-express feeder to express feeder, wherein they have to pay 15 % more than base tariff.

Commission's Ruling

The Commission has already clarified earlier in this Section regarding the applicability of tariffs to HT Industry and HT Commercial categories, as well as for domestic/residential and non-domestic/commercial categories. However, given the number of representations received in the context of categorisation under 'temporary' category, categorisation of construction activity, as well as the applicability of HT VI tariffs for bulk supply residential connection, etc., the Commission clarifies its views and rulings in this regard as under.

The Commission appreciates the concern expressed by the consumers engaged in construction activity that the nature of their connection is by no means 'temporary' and hence, it is inappropriate to classify construction activity under temporary. The Commission agrees with this rationale and rules that from hereon, temporary supply – HT or LT as applicable – will not include any construction activity, and will be limited to electricity used on temporary basis for any decorative lighting for exhibitions, circus, film shooting, marriages, etc., and the time period for consideration under temporary category will be one year. Further, all Construction activity, on infrastructure projects, buildings, hill station, etc., will be classified under 'Commercial Category' and be charged at HT Commercial or LT Commercial, as applicable. An illustrative Table, giving the applicability of tariff categories for various combinations of activities is given in the Table below.

After the issue of the APR Order for FY 2007-08, wherein the category-wise tariffs for FY 2008-09 were determined, MSEDCL had filed a Clarificatory Petition in Case No. 44 of 2008. In its Clarificatory Petition, MSEDCL inter-alia sought clarification on the applicability of temporary tariff for residential consumers, who are renovating their existing premises. In this regard, the Commission clarified as under:

> *"The Commission clarifies that the above stated applicability for LT VII – Temporary Connections was not intended to be applied to LT consumers who are renovating or undertaking minor construction activity at their existing premises. The Commission hence, clarifies that any LT consumer, having consumption upto 500 units per month, and who undertakes construction or renovation activity in his existing premises, does not require any separate temporary connection and this consumer should be billed at his existing tariff rate."*

In furtherance of the above clarification, certain situations have been envisaged, which have been described below, along with the tariff category to be applicable in each case:

Sl.	**Activity**	**Need for new connection for construction activity**	**Tariff category applicable***	
			Existing Connection	**New Connection**
1	Residential consumer with consumption < 500 units, undertaking renovation/minor construction activity at existing premises	No	Residential	Not Applicable
2	Above, with consumption > 500 units	Yes	Residential	Commercial
3	Any kind of construction work – Infrastructure Projects, Buildings, Hill Station, etc.	No, since basic activity is construction	Commercial	
4	Temporary supply – less than 1 year	Not Applicable	Temporary	

Note: * - In above illustrations, the tariff category would be HT or LT as applicable

As regards applicability of tariff for consumers taking supply at HT voltage for residential purposes, in response to a clarification sought by MSEDCL, the Commission had clarified that individual residential consumers taking supply at HT voltage (large bungalows) should be charged at LT residential rates, since there was no HT residential tariff category. However, it appears that MSEDCL has extended this clarification to include those HT residential consumers, such as housing colonies of industries or educational institutions, who are taking supply at single point for further sub-distribution within their residential complex. As a result, due to the higher slab tariff for consumption above 500 units for LT residential category, the effective tariffs for such consumers are working out very high. It is clarified that 'HT VI Group Housing Society' tariff is also applicable for such Housing Colonies of industrial consumers or educational institutions, taking supply at HT with separate sub-meter, irrespective of whether metering is at HT side or LT side of the transformer so long as the supply is at HT voltage.

Similarly, for commercial load of industrial consumers or educational institutions taking supply at HT voltage with separate sub-meter, the HT II Commercial category tariff will be applicable, irrespective of whether metering is at HT side or LT side of the transformer. The HT VI Commercial category tariff will not be applicable in such cases, since the same is intended to be only an interim solution, since all such commercial category consumers taking supply at single point have to be converted either to franchisee or individual connections, in accordance with the detailed rationale given by the Commission in previous Tariff Orders.

As regards MSEDCL's proposal for levy of 15% Express Feeder Charge on consumers being supplied through express feeders, the Commission's detailed rationale and ruling are elaborated in Section 5.4 of this Order. The Commission has determined the tariffs of HT industrial category in such a manner that HT I consumers connected on express feeders will be required to pay around 7% higher than HT I consumers connected on non-express feeders. The Commission has not introduced the concept of higher tariff for other HT consumers connected on express feeders, since MSEDCL has not submitted any data on the number of other HT consumers connected through express feeders, possible additional revenue on account of introduction of the higher tariffs, etc. In case, MSEDCL is desirous of introducing such a tariff differential for other HT consumer categories, then it should submit all the relevant data, including the revenue impact of such a move, at the time of the next tariff filing.

The Commission finds merit in the suggestion to include electricity used for the purpose of Sewage Treatment under Public Water Works since these are offered by the same entity, viz., Municipal Corporation or Council, etc. Accordingly, the Commission rules that PWW category will include electricity used for the purpose of Sewage Treatment as well.

As regards the suggestion that the tariffs should be uniform throughout the country, the Commission does not find any merit in the same. For reasons elaborated in earlier Orders as well, the Commission has already clarified that the tariffs need not be uniform in the same city or State; leave alone the country as a whole.

The Commission has determined the revenue requirement and tariffs in such a manner that the average tariff increase is around 4.2%, with the impact on different consumer categories ranging from 1% to 8%, thus ensuring that no consumer category is subjected to a tariff shock, while at the same time, taking forward the efforts to reduce cross-subsidy.

2.13. TARIFF REDUCTION FOR MPECS

VIA, Nashik Industries & Manufacturers' Association (NIMA), MIDC Industries Association, Amravati, and many other consumers strongly objected to MSEDCL's proposal to reduce tariffs for Mula Pravara Electric Co-operative Society Limited (MPECS), because of non-realization of revenue by MSEDCL and submitted that other consumers should not be burdened on account of subsidized tariff to MPECS; instead, power supply to MPECS should be disconnected due to non-payment of arrears.

VIA suggested that the Commission should at least bring the tariff of MPECS at par with other consumers and bring the tariff close to cost of supply so that other consumers are not burdened. Further, the recovery of arrears should be done as per norms, which warrants for disconnection in case of non payment.

Bhikusa Paper submitted that MSEDCL has not proposed any tariff hike for Mula Pravara, and even the rate applicable is too low as compared with that for the other categories. They requested the Commission not to accept MSEDCL's proposal for such reduced tariffs for MPECS. Further, arrears should be recovered from MPECS under a time-bound programme to meet the revenue gap of MSEDCL.

MSEDCL's Response

MSEDCL has followed the tariff principles adopted by the Commission in its Tariff Order dated June 20, 2008, and has hence, not proposed any tariff hike for MPECS.

Commission's Ruling

The Commission has dealt with the issue of tariff applicable for MPECS in the previous APR Order for MSEDCL, wherein the Commission ruled as under:

> *"Keeping in view the fact that MPECS is an embedded distribution licensee within MSEDCL licence area, and has a predominantly agricultural mix of consumers, and is also subjected to load shedding in accordance with the prevailing load shedding protocol for that region, the Commission has reduced the tariff applicable to MPECS, though not to the extent proposed by MSEDCL. Further, in accordance with the Judgment of the Honourable Appellate Tribunal for Electricity (ATE) on the Appeal filed by MPECS against the Commission's Tariff Order for MPECS, the Commission rules that MSEDCL should install meters capable of recording the Simultaneous Maximum Demand (SMD) at all the energy interchange points with MPECS, and levy demand charges on MPECS on the basis of the recorded SMD, rather than on the arithmetic summation of the demand at all the 22 energy interchange points."*

There has been no change in MPECS's situation or consumer mix. Hence, it is not correct to state that MPECS is being cross-subsidised by other consumer categories, since MPECS is also a distribution licensee and has got a consumer mix, which does not give it any significant cross-subsidy. Also, the issue of tariff applicable for MPECS is currently being agitated at various levels including the Honourable Supreme Court. Hence, the Commission has increased the tariffs by around 20 paise/kWh, in order to reduce the cross-subsidy slightly. Further, the Commission is of the view that the three Parties involved in this matter, viz., MPECS, MSEDCL and the State Government, should work together to resolve the issues rather than attempting to find solutions through the legal route.

2.14. VOLTAGE-WISE COST OF SUPPLY

VIA submitted that MSEDCL has not provided data on cost of supply for each consumer categories and for each supply voltage. Cost of supply should be assessed considering all the aspects including technical losses for providing supply to different category of consumers. The cost of supply for a HT consumer would be lower than the cost of supply for LT consumer. Similarly, cost of supply for LT consumer would be lower than the cost of supply for agriculture consumer. The cost of supply is dependent on the voltage level and cannot be same for all the categories of consumers. VIA added that the cost of supply should also include the cost of services to be provided by the licensee to a particular category of consumer assessed on per unit basis. As such the cost of services on per unit basis would be much more in case of agriculture consumers. VIA requested the Commission to decide the tariff of different consumer categories only after correct assessment of cost of supply to that category.

TBIA and VUEL pointed out that in the previous Tariff Orders, the Commission has expressed its intention to introduce Voltage Level Tariffs as done in many other States but due to lack of data was not able to introduce them. Voltage level tariff encourages consumers to change to higher voltage levels, which reduces transmission losses. TBIA requested the Commission to determine voltage level tariff, with the available data.

MSEDCL's Response

MSEDCL submitted that it has proposed tariff in line with the existing tariff structure approved by the Commission.

Commission's Ruling

It is an accepted fact that the cost of supply at higher voltages will be lower than the cost of supply at lower voltages, on account of the higher distribution losses at the lower voltages, and the incidence of costs being passed on to the lower voltages, since energy flows from higher to lower voltages. Despite repeated directions, MSEDCL is yet to submit the voltage-wise data, in order to enable it to compute the voltage-wise cost of supply. MSEDCL is directed to submit the same at the earliest.

For the purpose of this Order, the Commission has determined the tariffs vis-à-vis the average cost of supply. It may be noted that the EA 2003 does not specifically state that the tariffs have to be determined in relation to the voltage level cost of supply or the category-wise cost to serve, and only 'cost of supply' is referred. The Tariff Policy, on the other hand, specifically talks about moving towards ± 20% of Average Cost of Supply. Hence, while the data on voltage-level cost of supply and category-wise cost to serve would be useful in determining the tariffs, the tariffs may eventually be determined in relation to the Average Cost of Supply.

2.15. FUEL ADJUSTMENT CHARGE (FAC)

VIA, Tata Motors, VIPL and many others objected to MSEDCL's proposal to remove FAC cap and requested the Commission to continue present 10% FAC cap. VIA submitted that FAC should not be levied in proportion to base tariff of consumer categories since it is a fuel cost variation charge, which has no relation with the tariff for different categories but is dependent on variation in cost of fuel.

VIPL stated that principally FAC is meant to defray expenses relating to increase in fuel and power purchase expenses beyond the reasonable control of the licensee, and within the efficiency parameters laid down by the Commission. Therefore, the removal of 10% ceiling on levy of FAC would surely result in tariff shock to the consumers. VIPL further submitted that MSEDCL in its Tariff Philosophy has also requested for approval of proportionate FAC based on certain percentage of base tariff among different categories of consumers, which would tend to create a feeling of discrimination among the various categories of consumers for sharing of charges for increase in fuel cost. The extent of cross subsidy should be determined at the time of tariff determination only. VIPL requested the Commission to reject MSEDCL proposal for proportionate FAC linked to base tariff.

MSEDCL's Response

MSEDCL reiterated its submissions made to justify the proposal of removal of FAC cap and levy of proportionate FAC, as stated in its APR Petition, and as summarised in Section 5 of this Order.

Commission's Ruling

The Commission does not find merit in MSEDCL's proposals to remove the FAC cap as well as levy FAC in proportion to the base tariffs. The Commission's detailed rationale and ruling in this regard have been elaborated in Section 5.4 of this Order.

2.16. REFUND OF REGULATORY LIABILITY CHARGES (RLC)

VIA submitted that MSEDCL has collected more than Rs. 3200 Crore through levy of RLC from the consumers and only Rs. 500 Crore has been refunded in FY 2008-09, and requested the Commission to direct MSEDCL to make a provision for refund of RLC to the tune of at least Rs. 1000 Crore on one to one basis, in FY 2009-10.

TBIA submitted that RLC was a loan provided by subsidizing consumers and enquired as to how Auditors permitted MSEDCL to classify the same as Revenue instead of Loan in the Audited Accounts of MSEDCL. TBIA submitted that RLC is a loan given by industry and commercial category of consumers to MSEDCL and same should be refunded and it should not be linked with reduction of distribution losses.

Tata Motors, Bhikusa Paper, VUEL and many others stated that RLC charges were a loan taken from consumers and hence, needs to be refunded to consumer in a definite time frame either directly or through tariff reduction. If it is considered under ARR then tariff will get increased in proportion to refund amount and therefore, RLC refund gets hidden under the increased tariff of all consumers.

MSEDCL's Response

MSEDCL submitted that the Commission has ruled in the Tariff Order dated June 20, 2008 as under:

> *"6.4 Methodology for refund of RLC*
>
> *c) Since the effective billing period remaining in FY 2008-09 is nine months – from July 2008 to March 2009 (considering that MSEDCL will have to incorporate this methodology into the billing software), MSEDCL should ensure that the entire refund of Rs. 500 crore is undertaken in the balance nine months, by ensuring proportionate refund.."*

Accordingly, MSEDCL has started refund of RLC from the bill month of August 2008. Further, MSEDCL has considered Rs 500 Crore as a provision for refund of RLC to the consumers in FY 2009-10, as directed by the Commission in the Technical Validation

Session (TVS). RLC refund would be done as per the Commission's directives and the methodology prescribed by the Commission.

Commission's Ruling

The background of RLC refund, the need to provide for the same through the ARR, and the mechanism for refund of RLC have been detailed in the previous APR Order for MSEDCL and are hence, not being repeated in this Order. Suffice it to say that the Commission has ruled that the RLC amount has to be refunded to the consumer categories that have provided the 'loan', the and the amount of refund has to be provided in the ARR, since MSEDCL does not have other funds to repay the RLC amount. The amount of RLC refund considered for FY 2009-10 and the methodology of refund have been elaborated in Section 4.22.5 of this Order.

2.17. RECOVERY OF ARREARS AND BAD DEBTS

MGP and several other consumers submitted that the bad debts have accumulated on account of lack of MSEDCL's monitoring system and requested the Commission to disallow the same. They added that if the accumulated arrears including the arrears of MPECS are recovered then there would be no need to increase the tariffs for MSEDCL's consumers.

MSEDCL's Response

MSEDCL has not given any specific response to this issue.

Commission's Ruling

It is true that MSEDCL's receivables have reached alarming levels, however, it is necessary to understand that the amount of receivables of MSEDCL, has already been considered as revenue, the moment it is billed, by MSEDCL and the Commission for the purpose of determining ARR and tariffs, under the accrual basis of accounting for revenue, i.e., the revenue is booked once the bills are sent out, irrespective of whether the collection is done or not. Hence, recovery of the arrears will not result in reducing the proposed ARR of MSEDCL, and hence, will also not reduce the proposed tariff of MSEDCL. However, recovery of the arrears will certainly improve the liquidity position of MSEDCL, and since MSEDCL claims to have a poor liquidity position, it should strive to reduce the receivables by at least 20% to 25% every year, or write-off amounts gradually from the accumulated provision for bad debts that are deemed to be non-recoverable despite the best efforts of MSEDCL. MSEDCL is reporting average collection efficiency ranging from 94% to 97%, while in order to reduce the receivables, MSEDCL's average collection efficiency will have to be higher than 100% on a sustained basis.

2.18. BILLING

Several consumers submitted that MSEDCL had introduced a spot billing system and monthly billing system few years ago, however, the spot billing scheme has been discontinued over the last two years, and MSEDCL is unable to manage the monthly billing scheme. There are numerous complaints by consumers of bills being received late, not able to avail 1 % early payment discount, faulty billing, faulty meter reading, etc. They proposed that MSEDCL should be directed to revert to bi-monthly billing scheme at least for proposed LT-General category consumers. They added that with no reduction in revenue, MSEDCL can save on billing expenses. They added that even after introduction of bi-monthly scheme of billing if there are cases of billing errors then consumers need to get compensation of Rs. 100 per error bill for the time, money and energy spent by the consumer to get the bill corrected.

Bhikusa Paper requested the Commission to increase prompt payment discount from 1% to 2% to encourage the consumers to pay the bills promptly and help MSEDCL to improve its cash flow.

Bosch Limited submitted that MSEDCL after accepting Bank Guarantee in lieu of cash Security Deposit, returns the total amount, which was paid in cash by the consumer in 5 equal monthly instalments through energy bills and suggested that once the Bank Guarantee is accepted by MSEDCL, the cash deposit should be returned to the consumer by single payment within 30 days on submission of Bank Guarantee. Further, when the Regulations provide for acceptance of the Security Deposit in the form of Bank Guarantee, there is no reason for forwarding the proposal to C.E. (Commercial) sanction due to which the case is delayed by 2 to 3 months period. Bosch further submitted that the bills of the HT consumers need to be simplified further. The details of credit/debit adjustments are required to be stipulated more precisely mentioning complete details for the adjustments to maintain transparency in charging any such amount to the consumers.

MSEDCL's Response

The Commission is the competent authority for approving the tariff proposal submitted by MSEDCL. The Order of the Commission in this regard will be binding on both MSEDCL and the consumers.

Commission's Ruling

The monthly billing system is in accordance with the MERC Supply Code Regulations, and also ensures that MSEDCL's liquidity position is not subjected to further stress. MSEDCL should be able to manage the metering, billing and collection cycle in a efficient manner, since this is the most important part of the revenue generation cycle. As regards the submission of Bank Guarantee in lieu of Security Deposit, the same is provided for in the Regulations as well as the Tariff Schedule approved by the Commission as a part of the Tariff Order.

2.19. QUALITY OF SUPPLY/SERVICE

NMC submitted that different parameters such as SAIFI, SAIDI, etc., should be strictly monitored by MSEDCL for maintaining quality supply to consumers. They further submitted that distorted waveforms are observed in MSEDCL's power supply and there is no restriction on Harmonics.

VIA suggested that the Commission should direct MSEDCL to adopt a single window procedure for dealing with applications of consumers. The required data should be updated and should be kept at Circle office level in computerized format so that the processing of every application may become faster.

TBAI pointed out that there are regular power trippings and dipping of voltage causing serious production loss and damages to the equipments and instruments. The efforts in this respect from MSEDCL are largely wanting. Schemes such as HVDS, LTLMS, and Reactive Power Management Plan should be undertaken to improve the power factor and reduction of energy input.

MSEDCL's Response

MSEDCL has not given any specific response to these objections.

Commission's Ruling

The Commission is of the view that concerns expressed by consumers regarding the quality of supply are important, and MSEDCL should seriously look into the matter, to ensure that the overall objective of supplying quality electricity of appropriate voltage to the consumers is achieved. However, the same cannot be addressed by the Commission in the present proceedings.

2.20. DATA DISCREPANCY/ INSUFFICIENCY

Tata Motors submitted that MSEDCL has not considered actual audited figures for truing up for FY 2007-08. MSEDCL has made a profit of Rs. 117.16 Crore in FY 2007-08, whereas MSEDCL indicates revenue gap of Rs. 443 Crore in its Petition. Further, Audited Accounts of FY 2007-08 shows higher purchase of power in MU, higher payment to Transmission Companies, and profit of Rs 117.16 Crore. However, MSEDCL's Petition shows lower purchase of Power in MU, lower payment to Transmission companies, higher Transmission losses and shows Revenue gap of Rs 444 Crore. There is a big contradiction between the Audited Accounts and MSEDCL's Petition. Tata Motors requested the Commission to reject this Petition on account of incorrect data and reconsider the same only after authentic data is made available to the Commission and the stakeholders.

MSEDCL's Response

MSEDCL submitted that as per audited accounts of FY 2007-08, MSEDCL has made a profit of Rs. 117.16 Crore. At the same time, it must be understood that MSEDCL is entitled to get 16% return on equity under the regulatory framework. MSEDCL has claimed return on equity of Rs. 545 Crore. Further, the return on regulatory equity (RoE) does not form part of profit reported under the Audited Accounts. The difference of the same with some regulatory disallowances, which are not claimed, has resulted in true-up requirement of Rs. 444 Crore.

Commission's Ruling

The Commission has undertaken the truing up of expenses and revenue based on the audited accounts and MSEDCL's submissions on affidavit in this regard. As regards the contentions on book profit vs. ROE claimed by MSEDCL, it is clarified that the Audited Accounts are required to indicate the profit as the difference between income and expenditure, which does not include the RoE permitted to the distribution licensee. On the other hand, in the APR Petition, the revenue gap is computed as the difference between the Revenue Requirement (expenses plus ROE) and the income; hence, there will be a difference between the two sets of figures in this regard.

2.21. TRUING UP FOR FY 2007-08

VIA submitted that MSEDCL has projected a revenue gap of Rs.444 Crore for FY 2007-08. MSEDCL is not restricting its expenses, because the Commission is allowing the truing up every time as asked by MSEDCL. The excess expenditure for FY 2007-08 is required to be segregated under controllable and uncontrollable expenses, and should not be 100% pass-through in the ARR. The Commission should direct MSEDCL to be within budgetary provision for different expenditure heads.

TBIA submitted that MSEDCL has included all expenses under un-controllable factors, which clearly shows utter lack of application of efforts in controlling the parameters. TBIA added that the incentive for reduction of distribution losses to level lesser than normative level, as proposed by MSEDCL should not be allowed, as distribution loss was to be reduced by 4% every year. However, Commission reset the same in FY 2006-07 as 2% every year. Hence, actually, there is no additional reduction of distribution losses.

VUEL suggested that the Commission should consider only power purchase expenses and transmission charges as uncontrollable expenses and consider all others as controllable factors and determine tariff accordingly.

MSEDCL's Response

MSEDCL has not given any specific response to these objections.

Commission's Ruling

The Commission's treatment of each head of expense and revenue, as well as the truing up for FY 2007-08, based on audited numbers, has been elaborated in Section 3 of this Order.

2.22. TRUING UP FOR FY 2008-09

VIA submitted that MSEDCL has projected a revenue gap of Rs. 1673 Crore for FY 2008-09. The major difference is in employees expenses, which has increased by Rs. 526 Crore, A&G expenses, which has increased by Rs. 76 Crore, R&M expenses, which has increased by Rs. 122 Crore, depreciation & advance against depreciation, which has increased by Rs. 29 Crore, and provision for bad debts, which has increased by Rs. 38 Crore. However, the ARR has reduced by Rs. 87 Crore due to lower expenditure on power purchase amounting to Rs.915 Crore. VIA requested the Commission not to allow the additional expenditure for FY 2008-09.

Prayas submitted that while calculating the true-up requirement for FY 2008-09, MSEDCL has conveniently ignored revenue surplus of Rs.470 Crore of FY 2001-02 and Rs.214 Crore of FY 2006-07, which was considered by the Commission in the provisional true-up for FY 2008-09 in its Order dated June 20, 2008, which is an obvious error that has lead to inflating the tariff increase requirement by Rs. 690 Crore.

Prayas further submitted that while estimating power purchase quantum and cost for FY 2008-09, MSEDCL has considered the total power purchased, but some of the costly power was purchased for implementing 'zero-load shedding' model in certain areas. Under this model, consumers from such areas consuming more than a certain number of units pay an additional charge to avail the zero load shedding benefit. The additional charge is designed such that it covers the cost of additional power purchase. Hence, MSEDCL should also transparently account for the revenue generated from additional charge levied to such consumers. MSEDCL has not considered such revenue in its proposal leading to inflating revenue requirement by another Rs. 290 Crore.

Tata Motors submitted that while determining the ARR for FY 2008-09, the Commission has allowed the provision for bad debts @ 1.5% of Revenue requirement and requested the Commission not to allow any true up of the same.

MSEDCL's Response

MSEDCL has submitted the following data for the Annual Performance Review:

a. True-up of expenses and revenue for FY 2007-08 based on audited accounts.
b. Comparison of the revenue, expenses and performance of MSEDCL of FY 2008-09 with those approved by the Commission in the APR Order dated June 20, 2008.
c. Based on the estimates of FY 2008-09 and other factual considerations, revised projections for FY 2009-10 have been submitted.

In the Petition, MSEDCL has claimed provisional true-up of FY 2008-09. There was no true-up exercise carried out by the Commission for FY 2008-09 in the Tariff Order dated June 20, 2008. However, the Commission while determining Aggregate Revenue Requirement of FY 2008-09 considered pending claim of FAC, truing–up of FY 2001-02 and truing–up of FY 2006-07.

Regarding the contention expressed by Prayas, MSEDCL submitted that:

a. The true-up of FY 2006-07 has been revised by the Commission in its Order in Case No. 42 of 2008.
b. The true-up amount of FY 2001-02 has been disputed by MSEDCL. MSEDCL being aggrieved by the treatment of the Commission for determination of net revenue requirement for FY 2008-09 in Case No. 72 of 2007 has preferred an appeal before Appellate Tribunal of Electricity (ATE) (Appeal No. 185 of 2008).

Commission's Ruling

The Commission's treatment of each head of expense and revenue, as well as the provisional truing up for FY 2008-09 and determination of ARR and tariff for FY 2009-10, has been elaborated in Section 4 of this Order.

2.23. FIXED CHARGES

VIA, Renuka Roll-Tech Industries, Bhikusa Paper, VUEL and many others strongly objected to the proposed rise in fixed charges. VIA submitted that the fixed charges should not be increased beyond the existing level till load shedding is completely removed. Renuka Roll-Tech Industries opposed the proposal since power is not available on round the clock basis.

Urja Manch, Shri Ponrathnam and many others objected to the proposal of increase in the fixed charge and submitted that in case the fixed charges are increased, then the variable charges should be proportionately reduced.

MSEDCL's Response

Total expenditure as calculated and specified in the APR Petition has two components, viz., (a) Variable component, and (b) Fixed component. Variable component accounts for the expenditure, which varies as per the availability of power, viz., power purchase expenses, transmission charges, etc., whereas fixed component is one, which is spent irrespective of availability of power, viz., O&M expenses, depreciation, interest, finance charges, etc. The variable charges depend on power purchased and fixed charges are independent of power purchased/handled. Further, the fixed component of the total expenditure is not being recovered fully from the fixed revenue.

The Commission in its APR Order dated June 20, 2008 ruled that, *"The Commission has reduced the fixed charges/demand charges applicable for different consumer categories, and correspondingly increased the energy charges, so that the bills are more directly linked to the consumption. Economic theory states that the recovery of fixed costs through fixed charges should be increased, so that a reasonable portion of the fixed costs are recovered through the fixed charges. However, the ability of the Licensees to supply reasonably priced power on continuous basis has been eroded due to the stressed demand-supply position in recent times, and hence, the Commission has reduced the fixed charges. This will provide certain relief to the consumers who have lower load factor, as the consumers will be billed more for their actual consumption rather than the load, and the licensees also have an incentive to ensure that continuous 24 hour supply is given to the consumers. As and when sufficient power is available and contracted by the licensees, the fixed charges can again be increased, and energy charges reduced correspondingly."*

MSEDCL submitted that though it cannot be denied that the said decision of the Commission to reduce demand/fixed charge component of tariff has prima facie not resulted in any adverse revenue impact on the revenue income of MSEDCL, the logic behind such decision may not hold good for certain specific categories of consumers like HT-I Industries (Express feeder), HT-PWW (Express feeder), etc., since these consumer categories are exempted from load shedding. Similarly, HT Industries (non-express feeder) and HT-PWW (non-express feeder) consumers are subjected to limited duration of load shedding, and during the remaining period, these consumers are supplied power by MSEDCL.

Further, the decision of the Commission to reduce the fixed charges is contrary to the principles stated by the Commission in its Tariff Order dated May 5, 2000 while determining the fixed charge component of the tariff. The Commission, in the said Order, has stated that the recovery of fixed costs should come from fixed charges and has also observed that the level of fixed charge component of tariff needs to be gradually increased. However, the Commission has deviated from the same and reduced the demand/fixed charge applicable to different consumer categories. Hence, the Commission should increase demand/fixed charges of all the consumer categories at least to the level approved in the MYT Order dated May 18, 2007.

Commission's Ruling

In the previous APR Order for MSEDCL, the Commission had consciously reduced the fixed/demand charges, in response to the several objections submitted by stakeholders in this context. In the APR Order for FY 2007-08 for MSEDCL, the Commission observed as under:

> *"The Commission has reduced the fixed charges/demand charges applicable for different consumer categories, and correspondingly increased the energy charges, so that the bills are more directly linked to the consumption. Economic theory states that the recovery of fixed costs through fixed charges should be increased, so that a reasonable portion of the fixed costs are recovered through the fixed charges. However, the ability of the Licensees to supply reasonably priced power on continuous basis has been eroded due to the stressed demand-supply position in recent times, and hence, the Commission has reduced the fixed charges. This will provide certain relief to the consumers who have lower load factor, as the consumers will be billed more for their actual consumption rather than the load, and the licensees also have an incentive to ensure that continuous 24 hour supply is given to the consumers. As and when sufficient power is available and contracted by the licensees, the fixed charges can again be increased, and energy charges reduced correspondingly."*

As stated in the previous APR Order, the fixed/demand charges were reduced only as a measure to incentivise MSEDCL to contract for the necessary power requirement and ensure continuous supply of power to its consumers. MSEDCL has also admitted in the present APR Petition that there has been no adverse impact on the revenue of MSEDCL due to the reduction of fixed/demand charges. Since, MSEDCL claims in this Petition that it is striving to contract for the necessary power to meet the demand requirements, there would be no loss to MSEDCL. Hence, the Commission has retained the fixed/demand charges for all consumer categories at the existing level.

2.24. REVENUE GAP AND ANNUAL REVENUE REQUIREMENT (ARR)

VIA submitted that MSEDCL has projected a total revenue gap of Rs. 9578 Crore, and the same should be reduced by following amounts:

True up requirement of FY 2007-08	Rs. 444 Crore
True up requirement of FY 2008-09	Rs. 1673 Crore
Incentive for FY 2007-08	Rs. 284 Crore
Estimated MSPGCL impact	Rs. 2741 Crore
Estimated MSETCL Impact	Rs. 986 Crore

Total	Rs. 6128 Crore

Prayas stated that MSEDCL has sought a tariff revision of Rs. 9578 Crore for FY 2009-10. Around 40% of the projected revenue gap is on account of past/additional claims and truing-up claims, while another 36% is on account of 'estimated impact' of MSPGCL and MSETCL. Prayas submitted that several claims made by MSEDCL are unjustified and inappropriate if not preposterous, resulting in highly inflated revenue requirement and requested the Commission to take serious measures to discourage MSEDCL from making such inflated projections and creating a panic situation, when in reality the revenue requirement is far lesser.

Major reasons for these inflated numbers:

- Incorrect accounting of revenue

- Reducing distribution loss reduction target from 4% to 1% against the Commission's directives
- Projecting lower power purchase from MSPGCL and higher power purchase from traders at exorbitant rate of Rs. 9 per unit
- Indiscriminate increase in various controllable parameters such as O&M costs and capital expenditure (Capex) related cost

Prayas proposed the reduction in revenue requirement for FY 2009-10 as under:

(Rs. Crore)

MSEDCL projected revenue gap (A)	9578
Less:	
Correction for incorrect accounting of revenue	
Surplus of FY 2001-02	470
Surplus of FY 2006-07	214
Reliability charge from ZLS consumers	290
Sticking to Commission directed loss reduction trajectory of 4% for FY 2009-10	
Considering 4% loss reduction	952
Loss reduction incentive	142
Balanced evaluation of power purchase and transmission costs	
Reducing quantum of costly power from 3000 MU to 1500 MU	1350
Re-estimating balance high cost power purchase at Rs.7/unit instead of Rs.9/unit	300
Impact of addition 4000 MU from Paras and Parali	330
Impact of reduction in transmission costs	1050
Restricting inefficiency and other issues	
Projecting O&M exp at rate of 6.5% increase	1675
Projecting realistic capitalization and Capex related costs	350
Total – Reduction in projected revenue gap (B)	7143
Net revenue gap / tariff increase required = (A) – (B)	2435

Prayas submitted that MSEDCL has inflated the revenue requirement by almost four times as compared to actuals. Time and again MSEDCL has resorted to such tactics of making staggeringly high estimates of revenue requirement and thereby creating a wave of panic amongst consumers.

MSEDCL's Response

MSEDCL has not given any specific response to these objections.

Commission's Ruling

The Commission has, as in the past, taken each head of expense and revenue mentioned by Prayas, and its treatment as well as the final truing up for FY 2007-08 has been elaborated in Section 3 of this Order, while the provisional truing up for FY 2008-09 and determination of ARR and tariff for FY 2009-10, have been elaborated in Section 4 of this Order.

The consolidated revenue gap estimated by the Commission for FY 2009-10 works out to Rs. 1156 crore, as against the revenue gap of Rs. 9577 crore projected by MSEDCL in the APR Petition, and revenue gap of Rs. 7976 crore projected by MSEDCL in the Supplementary Submission. The effective average tariff increase required vis-à-vis the revenue from existing tariffs in FY 2009-10 after considering the prevailing FAC of 25 paise/kWh, works out to 4.4%, as compared to 36.6% and 29.7% tariff increase projected by MSEDCL in the APR Petition and Supplementary Submission, respectively.

2.25. CAPITAL EXPENDITURE

Prayas submitted that capital expenditure and capitalization are two important factors that influence the computation of various critical costs such as depreciation, advance against depreciation, interest on long term debt and return on equity. Accordingly, variation in approved values of these variables over the Control Period needs to be studied carefully. Most important it is one of the controllable parameters under the MYT regime. Prayas suggested that before passing on any capital expenditure cost to the consumer, the Commission should ensure its prudence, either through direct scrutiny or through evaluation by third parties. Further, the Commission should also mandate all utilities to submit post-facto cost-benefit analysis for any capital expenditure scheme.

Prayas added that MSEDCL has never been able to accomplish actual implementation of projects as per its plans. Based on its past track record and subject to prudence check, only a part of projected Capex related costs will be incurred by MSEDCL and hence, the Commission should reduce Capex related costs by Rs.350 Crore for FY 2009-10. If at all MSEDCL is able to actually make such large capital expenditure and is able to establish prudence of the same then it can always include the additional cost in next year's tariff proposal for true-up. Thus, on account of capex related costs, the tariff increase requirement needs to be reduced by Rs. 350 Crore.

MSEDCL's Response

Capital expenditure schemes exceeding Rs.10 Crore are executed only after formal scrutiny of the Commission. The basic objective of incurring the capital expenditure is to upgrade the ageing and weak distribution network to desirable standards so as to provide better network reliability and sustainable performance. The plan also envisages re-enforcement of the system to provide quality, security and availability of power supply to the consumers, to undertake system development to meet the load growth, achieve the targeted reduction in system losses, automation and other improvement works to enhance customer service and fulfil social obligation such as electrification of un-served areas.

Capital expenditure projections are in accordance with various milestones and in-principle approval granted by the Commission. Further, these capital expenditure projections are realistic and achievable during FY 2009-10.

Commission's Ruling

The Commission has considered only the schemes that have been granted in-principle approval by the Commission based on Detailed Project Reports (DPRs) submitted by MSEDCL, wherein the costs and benefits have been enunciated by MSEDCL. Further, realistic estimates of capital expenditure and capitalisation have been considered while determining the capex related expenditure heads. The Commission's detailed analysis, ruling, and directions to MSEDCL for FY 2007-08 have been elaborated in Sections 3.5 to 3.8 and 3.15 of this Order, while the analysis and ruling for FY 2008-09 and FY 2009-10 have elaborated in Sections 4.7 to 4.10 and 4.16 of this Order.

2.26. DEMAND SIDE MANAGEMENT (DSM)/ENERGY CONSERVATION

TBIA submitted that the Commission has directed all the Utilities to include the expenses on Demand Side Management while submitting APR and ARR Petition for which guidelines were provided by the Commission. The effect of Demand Side Management should reflect in lesser purchase of costly power due to effective energy conservation thereby reducing the Revenue Requirement.

TBIA requested the Commission to examine the details of Compact Fluorescent Lamps (CFL) distributed by MSEDCL to the consumers. TBIA pointed out that till date MSEDCL has not implemented the directives issued by the Commission vide its Tariff Order dated January 10, 2002, on energy conservation. MSEDCL has done nothing for energy conservation during the critical hours of demand and supply gap faced by the State.

Navi Mumbai Mall Owners Welfare Association proposed that independent and qualified agency should be appointed for forwarding the concept of DSM in the context of power purchase and management of demand supply gap with definite time frame.

MSEDCL's Response

MSEDCL has not given any specific response to these objections.

Commission's Ruling

Demand Side Management is one of the tools to reduce the energy consumption of the consumers, without sacrificing on the quality of supply and the quantum of electricity supplied. Although, MSEDCL continues to classify Feeder Separation Schemes and Load Management Schemes under DSM Schemes, this is incorrect, and the measures outlined by MSEDCL, including load shedding, are Load Management tools, rather than DSM measures. The Commission has given certain directives to MSEDCL in this regard, as outlined in Section 4.5.4 of this Order.

2.27. ADDITIONAL SUPPLY CHARGE (ASC)/INCREMENTAL ASC (IASC)

VIA submitted that by mixing the issues of IASC and ASC and by not refunding these charges as per the Commissions directives, MSEDCL has unnecessarily made the things complicated since the refund was to be given to the consumers on one to one basis for the excess amount collected by MSEDCL after adjusting the base tariff. VIA requested the Commission to direct MSEDCL to separate out IASC refund and to adjust it on one to one basis in the consumer's bill and then refund the ASC charges on one to one basis after proper computation as per the Commission's directives. VIA pointed out a possibility that there may be recovery against IASC charges to some consumers but it can be adjusted against the refund of ASC amount to the same consumer to avoid any litigation in the matter.

Tata Motors requested the Commission to direct MSEDCL not to consider Rs. 659 Crore under expenditure but refund to consumer on actual basis along with the interest @ 12% in one installment by adjusting the monthly energy bill or by cheque. They further requested the Commission to examine actual excess ASC amount with interest, while working out the refund.

VUEL suggested that the Commission should add interest on ASC refundable amount like the interest allowed on FAC to MSEDCL.

MSEDCL's Response

MSEDCL has filed a separate Petition for determination of ASC refund with the Commission. However, during Technical Validation Session of APR Petition of FY 2008-09, MSEDCL was directed by the Commission to include the impact of ASC refund in its Petition. Hence, MSEDCL has included ASC refund amount of Rs 659 Crore and the category wise breakup is available in Form14 of APR Formats. ASC refund amount would be determined based on Commission's Order and the methodology prescribed by the Commission.

Commission's Ruling

During the hearing in Case No. 139 of 2008 on MSEDCL's Petition to refund ASC, MSEDCL was directed to submit the revised Petition, after re-computing the amount of ASC refund, such that the ASC was refunded on a one-to-one basis as originally directed by the Commission. Subsequently, MSEDCL submitted its revised Petition, wherein the amount of refund has been reassessed as Rs. 592 crore. Accordingly, the Commission has considered ASC refund of Rs. 592 crore in the ARR of FY 2009-10, in accordance with the Commission's ruling in this regard in its Order in Case No. 42 of 2008 on the Review Petition filed by MSEDCL against the previous APR Order for MSEDCL in Case No. 72 of 2007.

2.28. OPEN ACCESS

VIA submitted that MSEDCL has proposed very high wheeling charges of Rs.152/kW/Month for 33 kV level and Rs. 202/kW/Month for 22/11 kV open access user. VIA requested the Commission not to allow the high wheeling charges projected by MSEDCL, and retain them at existing level otherwise wheeling of power shall become infeasible.

TBIA proposed that Open Access should be allowed to facilitate consumers/group of consumers to bring the power from various other sources and bridge the demand and supply gap. Further, cross subsidy charges should be zero.

VUEL submitted that the OA charges to the 22/11 kV consumers are very high and are not in line with the voltage level calculations.

MSEDCL's Response

MSEDCL has applied the ratio of network and supply cost segregation as approved by the Commission in its MYT Order dated May 2007. MSEDCL does not maintain audited accounts for voltage-wise assets. However, based on engineering estimate of its assets, MSEDCL has arrived at the segregation as explained in the APR Petition.

Commission's Ruling

The computation of wheeling charges and wheeling losses applicable for open access transactions in FY 2009-10 has been elaborated in Section 5.6 of this Order. The cross-subsidy surcharge for eligible open access consumers will continue to be Nil, in continuation of the Commission's decision in this regard in the previous Tariff Order.

3 TRUING UP OF ANNUAL REVENUE REQUIREMENT FOR FY 2007-08

MSEDCL, in its Petition for Annual Performance Review for FY 2008-09 and determination of revenue requirement and tariff for FY 2009-10, sought approval for final truing up of expenditure and revenue for FY 2007-08 based on actual expenditure and revenue for FY 2007-08 as per audited accounts.

In this Section, the Commission has analysed all the elements of actual revenue and expenses for FY 2007-08, and has undertaken the truing up of expenses and revenue after prudence check. Further, for FY 2007-08, the Commission has approved the sharing of gains and losses on account of controllable between MSEDCL and the consumers, in accordance with Regulation 19 of the MERC Tariff Regulations, in this Section.

3.1 Sales

MSEDCL submitted the month-wise actual category-wise sales in FY 2007-08 in the Formats annexed to the APR Petition. The summary of actual sales in FY 2007-08 is given in the Table below:

Table: MSEDCL's Actual Sales in FY 2007-08 ***(MU)***

Sl.	Particulars	MYT Order	APR Order	Actuals
1	Sales	54711	53958	55715

The actual sales reported by MSEDCL have been higher than the sales considered in the APR Order, by 1757 MU. In the APR Order, the Commission obtained the details of category-wise sales for the 11-month period from April 2007 to February 2008 and pro-rated the same for the entire FY 2007-08, by considering the share of sales in March of the previous year, for each consumer category separately. MSEDCL's estimate of un-metered agricultural consumption, at 6493 MU, was accepted for the purpose of provisional truing up.

In the present APR Petition, MSEDCL has provided details of actual sales to metered categories over the entire year, and has estimated un-metered agriculture consumption using the method approved by the Commission, i.e., based on recorded consumption of metered agricultural consumers for FY 2007-08. The Commission has hence, considered the actual sales as reported by MSEDCL under the truing up process.

3.2 Distribution Losses and Energy Balance

MSEDCL submitted that the Commission in the APR Order dated June 20, 2008 has determined distribution loss for FY 2006-07 as 30.2% with a distribution loss reduction target of 4% for FY 2007-08, which works out to a target loss level of 26.2%. MSEDCL submitted that the actual distribution loss for FY 2007-08 was 24.09% and the over-achievement of 2.11% translates to revenue of Rs 425 crore (2.11% of Rs 20159 Crore), which needs to be shared as per Regulation 19 of MERC Tariff Regulations.

The Commission has considered the sales projections as approved in the earlier paragraphs. The pooled intra-State Transmission Losses for FY 2007-08 has been considered as 4.67%, and the Energy Input at Transmission Periphery has been considered as 77053 MU, based on the inputs received from the Maharashtra State Load Despatch Centre (MSLDC) under its Balancing and Settlement Mechanism. The distribution loss in MSEDCL's system has been accordingly considered as 24.15%, as compared to MSEDCL's submission of 24.09%.

In this context, several consumers and Consumer Representatives submitted during the public regulatory process that MSEDCL should not be allowed to retain any gains due to the reduction of distribution losses to levels lower than the normative level specified by the Commission. They further added that MSEDCL was desirous of sharing only the efficiency gains, but was not willing to share the losses due to controllable factors, by classifying all other expenses under uncontrollable factors. The Commission is of the view that in order to implement the MERC Tariff Regulations in a fair manner, the efficiency gain or loss on account of controllable factors have to be shared in accordance with the MERC Tariff Regulations. Also, MSEDCL needs to be incentivised to reduce its distribution losses further. At the same time, the issue of refund of RLC is inextricably linked to the issue of reduction of distribution losses, as originally ruled by the Commission in this matter. Hence, the Commission has computed the efficiency gains on account of the lower distribution losses as well as the losses due to the higher expenses of MSEDCL, as discussed in a subsequent sub-section under this Section.

The Energy Balance for FY 2007-08 for MSEDCL as submitted by MSEDCL and as approved by the Commission is given in the Table below:

Particulars	Units	FY 2007-08	
		MSEDCL	Approved
Purchase from MSPGCL	MU	*48,257*	*48,257*
Purchases from other sources within the State	MU	*7,044*	*7044*
Total Purchase from within the State	**MU**	**55,301**	**55,301**
Effective gross purchase from outside the State	**MU**	**23,433**	**23,433**
Central Generating Station	*MU*	*21,066*	*20929*
UI	*MU*	*225*	*225*
Kawas/ Gandhar/ Traders	*MU*	*2,142*	*2789*
Inter-State transmission losses	%	4.70%	4.70%
Net purchase from outside the State	**MU**	**22,331**	22,332
Total Power Purchase payable	**MU**	78,734	78,734
Energy at Transmission Periphery	**MU**	**77,486**	**77,053***
Intra- State Losses	%	**5.27%**	**4.67%***
Energy at Distribution Periphery	**MU**	**73400**	**73454**
Distribution losses	**%**	**24.09%**	**24.15%**
Energy sold	**MU**	**55715**	**55715**

Note: * Based on inputs received from MSLDC under the Balancing and Settlement Mechanism

3.3 Power Purchase quantum and Cost for FY 2007-08

The Commission, in its APR Order for FY 2007-08 in Case No 72 of 2007 dated June 20, 2008, approved total power purchase expenses of Rs 14963 Crore for FY 2007-08. The Commission also considered the intra-State transmission charges payable by MSEDCL at Rs 1460 Crore for FY 2007-08, based on the approved transmission tariff and SLDC charges for FY 2007-08. Thus, the total power purchase expenses approved by the Commission for MSEDCL for FY 2007-08 including transmission charges and SLDC charges was Rs 16423 Crore.

MSEDCL, in its APR Petition, requested for truing up of the total power purchase expenses to the extent of increase in power purchase cost by Rs 574 Crore, excluding intra-State transmission charges and MSLDC charges and after considering both, costly and non-costly sources of power. As regards the intra-State transmission charges and MSLDC charges, MSEDCL submitted that actual charges paid under these heads, amounts to Rs. 1469 Crore, with the variation being on account of payment of MSLDC Charges. The Commission has considered the actual power purchase expenses for the period from April 1, 2007 to March 31, 2008, based on the audited accounts of MSEDCL for FY 2007-08, for all the sources except RGPPL.

As regards power purchase from RGPPL during FY 2007-08, MSEDCL has considered the purchase cost of Rs. 1146.20 Crore consisting of fixed cost of Rs. 363 Crore and variable charge of Rs. 784 Crore. However, the Central Electricity Regulatory Commission (CERC), in its Order dated April 16, 2009 in Petition No. 96 of 2007 on Tariff Determination of RGPPL, has approved the fixed charge of Rs. 412 Crore for FY 2007-08. Further, regarding recovery of fixed charges, CERC in the said Order stipulated as under:

> *"24. Petitioner No.1 by its affidavit dated 30.4.2009 has submitted that its actual target availability are 70.20% and 34.26% for the period 2007-08 and 2008-09 respectively.*
>
> *25. The question of relaxation of target availability norms for the generating station during the period 1.9.2007 to 31.3.2009 to the extent of the actual availability, as prayed by Petitioner No.1 has been considered by the Commission. Petitioner No.1 has declared the date of commercial operation of the Block-II and III of the generating station as 1.9.2007 and 21.11.2007 respectively with the full knowledge that the generating station was not in a position to perform on sustained basis. It has been observed that the actual availability on annual basis was 70.20% in 2007-08, whereas the same has been reduced to 34.26% in the year 2008-09. The 2004 regulations provide that generation before the date of commercial operation shall be treated as infirm power and there was no compulsion for Petitioner No.1 to declare commercial operation of the unit/block prior to its stabilization. In the above background, relaxation of target availability norms for the generating station to the level of actual availability, for the purpose of tariff is not justified. The risk of such low level of operation of the generating station has to be borne by the generator.* ***In***

view of this, the target availability for the generating station for the period 1.9.2007 to 31.3.2009 has been considered as 80 %." (emphasis added)

In accordance with the CERC Order, the Commission has considered the reduced fixed charges for FY 2007-08 on pro-rata basis, considering the actual availability and approved target availability by CERC for FY 2007-08 for recovery of full fixed charges as shown in the Table below:

Sl.	Particulars	Unit	FY 2007-08
1	AFC Approved by CERC	Rs. Crore	412.00
2	Actual Availability	%	70.20%
3	Normative Availability Approved by CERC	%	80.00%
4	AFC Allowed to be recovered	Rs. Crore	361.53
5	MSEDCL Claim in APR Petition (Capacity Charge)	Rs. Crore	363.00
6	Capacity Allocation	%	95.00%
7	AFC considered as per CERC Order	Rs. Crore	343.45

Further, the Commission observes that CERC, in the said Order has stipulated as under regarding energy charges:

"52. The following parameters for closed cycle operation have been considered by Petitioner No.1 for energy charge calculation:

	2007-08	2008-09
A.E.C.	3%	3%
Station Heat Rate on LNG (Kcal/kWh)	1887	1887
Station Heat Rate on Naptha (Kcal/kWh)	2000	2000
GCV of Gas (Kcal/SCM)	9781	9820
GCV of Liquid fuel (Kcal/Lt.)	7986	7986
Price of Gas (Rs./1000 SCM)	9614	10576
Price of Liquid fuel (Rs./KL)	21198	21198

53. The base energy charges worked out are based on the Station Heat Rate norm of 1850 kcal/kWh for closed cycle operation considering the price and GCV of gas procured in the year 2007-08 (as the three month's data prior to the date of commercial operation is not available) as the generating station operates under

RLNG/gas only after the date of commercial operation as per the following computation:

Description	Unit		
Capacity	MW	668.540	1337.08
Normative PLF/Availability	Hours/Kw/year	7008.00	7008.00
Gross Station Heat Rate corresponding to GCV	kCal/kWh	1850.00	1850.00
Aux. Energy Consumption	%	3%	3%
Weighted Average GCV of Gas	kCal/SCM	9781.00	9781.00
Weighted Average price of Gas	Rs/1000 SCM	9614.00	9614.00
Rate of Energy Charge from Gas	Paise/kWh	181.84	181.84
Rate of Energy Charge ex-bus per kWh sent on gas	Paise/kWh	**187.47**	**187.47**

"

As observed from the above paragraphs, CERC has approved the station heat rate on normative basis (as against RGPPL's request for approval of different values of heat rate for FY 2007-08 and FY 2008-09), and therefore, this would impact the variable cost charged by RGPPL to MSEDCL for FY 2007-08. The Commission is of the view that based on the approved norm for station heat rate, the variable cost charged to MSEDCL for FY 2007-08 may undergo a change subject to the Fuel Price Adjustment formula specified by CERC. Accordingly, for truing up purposes, the Commission has considered the actual fuel cost (including FPA) of Rs. 784 Crore as submitted by MSEDCL, **however, the Commission directs MSEDCL to follow-up with RGPPL for required adjustments in the variable cost for FY 2007-08 and submit the details of the adjustment amount to the Commission within three months of the date of this Order as well as in the APR Petition for FY 2009-10, which will be considered during the APR exercise for FY 2009-10.**

As regards power purchase from renewable energy (RE) sources, based on actual power purchase details submitted by MSEDCL for FY 2007-08, it is observed that MSEDCL has purchased around 3% of energy from renewable energy sources against the target of 4%. The Commission, in its Order in the matter of long term development of renewable energy sources and associated regulatory (RPS) framework in Case No. 6 of 2006 dated August 16, 2006, while stipulating the enforcement of the RPS framework vide Para 3.1.9 stipulated as follows:

> ***"Enforcement**: The Eligible Persons will have to comply with their RPS obligations as stipulated under Clause 2.6.8 of this Order subject to conditions stipulated under cl. 2.10.7 and cl. 2.10.8. Shortfall in RE procurement by Eligible Persons shall be treated as non-compliance with the Commission's directives, and shall attract action as per appropriate provisions of EA 2003. The Commission directs MEDA to report such incidences of failure to comply by Eligible Persons, to the Commission. **During first year of RPS operating framework, i.e., 2006-07, there shall not be any charge towards enforcement.** However, the Eligible Persons shall be liable to pay at the rate of Rs 5.00 per unit of shortfall in 2007-08, Rs 6.00 per unit of shortfall in 2008-09, and Rs 7.00 per unit of shortfall for 2009-10. Such charges towards shortfall in renewable energy procurement levied on distribution licensees will not be allowed as 'pass through' expenses under their Annual Revenue Requirement." (emphasis added)*

However, in the context of enforcement on account of non-fulfilment of the RPS target, Petitions for waiver of the RPS target were filed by MSEDCL, RInfra-D and BEST in Case Nos. 104, 122 and 125 of 2008, respectively. The Commission, in its Order dated August 7, 2009, in the above mentioned cases stipulated as under:

> *"38. The Commission is of the view that while it has noted the efforts taken by licensees for RE procurement, the failure to generate RE power or install capacity sufficiently in advance, despite contracts being in place (in case of MSEDCL) will have to be addressed through suitable contracting arrangements. In this context, the Commission notes that one of the licensees, namely, TPC has been able to achieve the RPS target.*
>
> *39. Further, considering year-to-year shortfall in RE capacity addition, the Commission is of the view that it would not be practical to expect that such shortfall can be made good on cumulative basis by the end of FY 2009-10. Hence, the Commission believes that in pursuance of Cl. 2.6.12 of RPS Order (Case 6 of 2006), it would be most appropriate to modify the RPS percentage requirement for FY 2007-08, FY 2008-09 and FY 2009-10 to be lower of (a) RPS target as specified under Cl. 2.6.7 or (b) actual achievement of RPS target in respect of each 'Eligible Person'."*

In view of the above, the Commission has considered the actual purchase from renewable sources for FY 2007-08.

As regards the intra-State transmission charges and MSLDC charges, the Commission has considered the actual charges paid towards these charges amounting to Rs. 1469 Crore for truing up purposes for FY 2007-08.

The summary of the power purchase cost allowed for FY 2007-08 after truing up, is given in the Table below:

Table: Summary of Power Purchase Cost for FY 2007-08 (Rs. Crore)

Particulars	APR Order	Truing Up sought by MSEDCL	Actuals	Allowed After Truing up
Power Purchase Cost	14963	15537	15537	15518
Intra-State Transmission Charges and SLDC charges	1460	1469	1469	1469

3.4 O&M Expenses

Operation & Maintenance (O&M) expenditure consists of employee related expenditure, Administrative & General (A&G) expenditure, and Repair & Maintenance (R&M) expenditure.

MSEDCL's submissions on each of the heads of O&M expenditure for FY 2007-08, and the Commission's ruling on the truing up of the O&M expenditure heads are detailed below.

3.4.1 Employee Expenses

MSEDCL submitted that the total actual employee expenses for FY 2007-08 was Rs 1782 Crore as against Rs 1727 Crore approved by the Commission in the previous APR Order.

MSEDCL submitted that the main reason for the increase in the employee expenses is the higher provisioning for Earned Leave Encashment by Rs 36 Crore and increase in Terminal Benefits such as Gratuity, Provident Fund by Rs 62 Crore. MSEDCL added that it had considered Rs 88 Crore as net employee expenses corresponding to deferred expense for Earned Leave Encashment as per the Commission's Order dated June 20, 2008 on MSEDCL's APR Petition for FY 2007-08. MSEDCL added that as per audited Accounts for FY 2007-08, the employee cost has been capitalised at a rate of 5.87%.

Considering the details of actual employee expenses submitted by MSEDCL, the Commission has accepted the actual employee expenses for FY 2007-08 under the truing up exercise. The capitalisation of employee expenses has been considered at the same percentage as the actual capitalisation submitted by MSEDCL. The summary of the employee expenses approved by the Commission under the truing up exercise has been shown in the following Table:

Table: Employee Expenses ***(Rs Crore)***

Particulars	**APR Order**	**Actuals**	**Allowed after truing up**
Gross Employee Expenses	1830	1799	1799
Less: Expenses capitalized	103	105	105
Employee Expenses (Net after capitalisation)	**1727**	**1694**	**1694**
Deferred expense for Earned Leave Encashment	Included in Gross Employee Expenses above	**88**	**88**
Net Employee Expenses	**1727**	**1782**	**1782**

3.4.2 A&G Expenses

MSEDCL submitted that the actual net A&G expenses incurred in FY 2007-08 were Rs 219 Crore as against Rs 156 Crore approved by the Commission in the APR Order for FY 2007-08. MSEDCL submitted that the main reasons for increase in the A&G expenses by around Rs. 63 crore are due to increase in expenditure on Rent, Conveyance and Travel, Security arrangements, Legal Charges, Computer Stationary and Fees and Subscription. MSEDCL added that though it considered an annual increase of 7.5 % over previous year's expenses for most of the expense heads in the APR Petition of FY 2007-08, the Commission in its previous APR Order considered an increase of 5.29% only while approving the A&G expenses, with a view to control the A&G expenses.

The detailed reasons for increase in A&G expenses for FY 2007-08 as submitted by MSEDCL are as follows.

- **Rent and Taxes:** Rs 18.08 Crore rent payable to MSEB Holding Company Ltd., which was not considered in MSEDCL's APR Petition of FY 2007-08, has been provided for during FY 2007-08.
- **Conveyance and Travel:** Increase in expenses under this head was due to frequent unscheduled meetings arranged at corporate office and field offices in order to monitor and improve performance of MSEDCL, as well as special recovery drive, theft detection drive and abnormal increase in the price of petrol and diesel.
- **Security Arrangement:** The threat of misappropriation, theft, damage, etc., is higher in MSEDCL's licenced area of supply, which is very wide and distribution assets are largely in the open area. Hence, in order to protect the properties and employees of MSEDCL, additional security measures were provided, which has increased the security expenses.
- **Expenditure on computer billing:** The actual expenditure is higher because of increase in number of consumers and increase in rates, coupled with innovative ideas such as photo meter-reading.
- **Advertisement:** Expenditure on electronic and print media was incurred in order to create public awareness to avoid theft of energy and encourage energy conservation measures, as well as due to increase in purchase related advertisement expenses.
- **Fees and Subscriptions:** Licence fee paid to the Commission amounting to Rs.10.53 Crore is included under this head during FY 2007-08, whereas the same was considered in Rent, Rates & Taxes in APR Petition of FY 2007-08.
- **Consultancy Charges:** To prepare, execute and monitor the infrastructure schemes and for other purposes, additional services of consultants were utilized, hence, the expenditure on consultancy was more.
- **Legal Fees:** In order to defend the legal cases initiated by MSEDCL and against MSEDCL, additional services of legal experts had been utilized, resulting in higher expenses on this account.

Regarding increase in legal fees, MSEDCL was asked to submit the details of legal fees on case-wise basis with the details of the cases won and lost. MSEDCL, in its reply, submitted that it does not maintain such details, and added that as per audited accounts, MSEDCL had incurred Rs 8.22 Crore on account of legal charges during FY 2007-08.

The Commission is of the view that A&G expenses, being controllable in nature, cannot be allowed to increase at the rates considered by MSEDCL, and MSEDCL has to share the loss due to controllable factors as provided under the MERC Tariff Regulations. However, the Commission has allowed the expenditure on lease rent payable to the MSEB Holding Company Limited, since MSEDCL has submitted the required documentary evidence. Also, the higher expenses under Fees and Subscription have been accepted, since the increase is on account of reclassification of the licence fees paid to the Commission. For truing up of other sub-heads of A&G expenses for FY 2007-08, the Commission has considered the expenses as approved in the provisional true up for FY 2007-08 in the APR Order issued on June 20, 2008. The capitalisation of A&G expenses has been considered as 20%, which is the actual capitalisation rate for FY 2007-08.

The summary of A&G expenses approved in the APR Order, actual A&G expenses and A&G expenses approved after truing up for FY 2007-08 has been shown in the following Table:

Table: A&G Expenses ***(Rs Crore)***

Particular	APR Order	Actuals	Allowed after truing up
Gross A&G Expenses	218	274	236
Less: Capitalisation	62	55	47
Net A&G Expenses	**156**	**219**	**189**

However, the difference between the actual A&G expenses and the A&G expenses allowed after truing up for FY 2007-08 has been considered as a controllable loss and has been shared between MSEDCL and the consumers in accordance with Regulation 19 of the MERC Tariff Regulations, as explained later in this Section.

3.4.3 R&M Expenses

MSEDCL submitted that the actual R&M expenses for FY 2007-08 were Rs 526 Crore, as compared to the R&M expenses of Rs. 436 Crore approved by the Commission in the APR Order for FY 2007-08. MSEDCL submitted that the increase of Rs. 90 crore in FY

2007-08 is attributable to the increase in the R&M of lines and underground cables, which in turn is on account of the following reasons:

- Material Cost Variance (MCV), which was earlier being charged entirely to the revenue account, has been charged to revenue account and capital works in the ratio of actual charges of material for R&M and capital works in FY 2007-08. The total MCV amounts to Rs 158 Crore, of which, Rs 34.79 crore has been charged to R&M as part of MCV for the material used for R&M.
- There was flood in some parts of the State due to heavy rain and the distribution transformers, lines and cables were submerged. R&M expenditure was increased in order to restore the electricity supply and keep the asset in working condition.
- There was requirement for significant R&M works mainly due to ageing effect and non-attendance to the critical R&M needs in the past owing to paucity of funds. The projected R&M expenditure includes the works like replacement of HT & LT Cables, Distribution boxes, LT & HT poles, single phase/three phase/CT operated Meters, DTC Maintenance, re-earthing, providing guarding, crimping of jumpers at cut points, labour charges on all above, etc. Most of the distribution networks are overhead and therefore, susceptible to the onslaught of environment and other related factors. Due to huge widening and digging of the roads in the cities and towns, the utilization of cables is increased. In order to improve the system and reduce distribution losses, the old cables, distribution transformers, meter panels and relays have been replaced in affected areas.
- In the coastal & hilly areas, the corrosion effect is very prominent, and consequently, the R&M expenses are higher.

In the context of R&M expenses for FY 2007-08, the Commission sought justification from MSEDCL on the following issues:

- Justification for the high level of Material Cost Variance (MCV), and method of computation of Material Cost Variance (MCV).
- Details of additional R&M expenditure incurred by MSEDCL due to flood in certain parts of the State
- Statistical data to support MSEDCL’s contention that the R&M in coastal and hilly areas was frequent and expensive due to corrosion, humidity and rainfall.

- Justification for including the expenditure against replacement of old cables, distribution transformers, meter panels and relays, under revenue expenditure (R&M) rather than capital expenditure, based on relevant Accounting Standards.

In reply, MSEDCL submitted the following:

As regards the increase in MCV, MSEDCL submitted that as per the earlier practice, material was being valued on the basis of standard cost. However, as the standard cost was not updated for long period, there was huge balance of material cost variance. MSEDCL submitted that the valuation of material on the basis of standard cost has been discontinued with effect from April 1, 2008. As regards the methodology for computation of MCV, MSEDCL submitted that for material, which was being utilised frequently, the Standard Cost was being determined on the basis of rates of actual procurements, price variations, anticipations in market, etc., and the difference between standard cost and actual cost of material was being accounted for as 'Material Cost Variance'.

As regards justification sought for the rest of above listed queries, MSEDCL submitted that MSEDCL's accounts are not maintained in a manner, wherein the increase in R&M expenses due to flood and corrosion effect can be identified. MSEDCL has not made any submission regarding the Accounting Standards under which replacement of assets are being booked under R&M expenses.

As the Commission is undertaking the truing up of expenses for FY 2007-08 based on actual expenses subject to prudence check, the Commission has considered R&M expenses of Rs 436 Crore for FY 2007-08 as approved in the previous APR Order. The Commission has disallowed the additional expenditure, since MSEDCL had projected only Rs 447 Crore in its earlier APR Petition and moreover, the allowed expenditure is already around Rs 77 Crore higher than that approved for FY 2007-08 in the MYT Order. The Commission cannot allow increase in R&M expenses in such a manner. Also, MSEDCL has not replied to the Commission's query regarding whether expenditure on replacement of assets should be included in capital expenditure or R&M. Further, the R&M expenses as percentage of GFA is already 4.20%, and cannot be allowed at higher rates of around 5% of GFA, as sought by MSEDCL. However, the difference between the actual R&M expenses and the R&M expenses allowed after truing up for FY 2007-08 has been considered as a controllable loss and has been shared between MSEDCL and the consumers in accordance with Regulation 19 of the MERC Tariff Regulations, as explained later in this Section.

The summary of R&M expenses approved in the Order, actual R&M expenses and R&M expenses approved after truing up for FY 2007-08 has been shown in the following Table:

Table: R&M Expenses (Rs Crore)

Particular	MYT Order	APR Order	Actuals	Allowed after truing up
R&M Expenses	356	436	526	436

3.5 Capital Expenditure and Capitalisation

MSEDCL, in its APR Petition for FY 2008-09, has submitted that the total capital expenditure incurred during FY 2007-08 amounts to Rs. 1324 Crore as against Rs.1353.20 Crore approved by the Commission in its Order dated June 20, 2008. The total capitalisation considered by MSEDCL for FY 2007-08 is Rs. 1108 Crore (excluding grants), while the Commission had approved Rs. 1215.46 Crore in the APR Order. The project details and capital expenditure and capitalisation as considered by MSEDCL are shown in the Table below:

Rs. Crore

Project Number	Project Title	Investment during the year	Total Capitalisation
(1) AMR	Automatic Meter Reading	0	0
(2) Rural Electrification - Distribution	(a) DPDC / Non-Tribal	82	67
	(b) DPDC / SCP	45	39
	©DPDC / TSP + OTSP	27	28
	(d) SPA:PE	113	122
	(e) P:SI	128	122
	(f) P:IE	11	11
	(g) New Consumers	0	0
	(h) R E Grant	7	7
(3) GoI Grant	RGGVY	35	3
(4) Distribution Schemes	(a) PFC urban distribbution Scheme	199	185
	(b) MIDC (int. free loan) Scheme	0	0
	©Evacuation of Power	0	0
	(d) Evacuation of Wind Generation	0	0
	Ag.Metering	0	0
	JBIC	4	4
(5) Infra Works	**Infra plan Works**	80	67
(6) Special Projects	(a) Gaothan Feeder Seperation Scheme - Phase I & Phase II	218	152
	(b)Gaothan Feeder Seperation Scheme - Phase III	0	0
	(b) Fixed Capacitor scheme.	0	0
(7) APDRP	**Phase -1**	134	133
	Phase-2	109	94
	Phase-3	0	0
(8) Internal Reform	a) DTC metering -Phase 1 and Phase 2	18	15
	b) DTC metering -Phase 3	0	0
	b) MIS (Communication backbone)	0	0
	c) DRUM	23	0
(9) Load Management	a) R & M	8	4
(10)FMS	Feeder Management	0	0
(11) Backlog		85	55
Total		**1324**	**1108**

As per Regulations 59.3, 60.1, 71.3 and 72.1 of the MERC Tariff Regulations, the approved investment plan of the distribution licensee shall be the basis for determining the 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. Accordingly, the total capitalisation for FY 2007-08 corresponding to capital expenditure schemes approved by the Commission amounts to Rs. 463.16 Crore out of total capitalisation of Rs 1108 Crore as proposed by MSEDCL. The details of schemes approved by the Commission based on the Detailed Project Report (DPRs) submitted by MSEDCL, are shown in the Table below:

PROJECT NUMBNER	PROJECT COST (RS.CR.)	FUNDING	PROJECT TITLE	CAPITALISATION (RS. CR)
MSEDCL/FY05/01	47.52	100%Debt	Automatic Meter Reading	0
MSEDCL/FY07/06 & MSEDCL/FY09/02	899.88	90% Grant, 10% Loan	Rajiv Gandhi Gramin Vidutikarn Yojana	2.57
MSEDCL/FY07/03	614	80% Loan, 20% Equity	Ag.Metering	0
119 schemes	8918.16		Infra plan Works	66.54
MSEDCL/FY07/01	894.71	90% Loan, 10% Equity	Gaothan Feeder Seperation Scheme - Phase I	152.03
MSEDCL/FY06/02	1136.56	25% Grant, 75% Loan	APDRP Phase -1	133.07
MSEDCL/FY09/04	237.53	25% Grant, 75% Loan	APDRP Phase-2	93.8
MSEDCL/FY06/01	92.49	90% Loan, 10% Equity	a) DTC metering -Phase 1 and Phase 2	15.15
MSEDCL/FY09/01	149.59	90% Loan, 10% Equity	b) DTC metering -Phase 3	0
MSEDCL/FY07/04	147.38	13% Grant, 78% Loan, 9% Equity	c) DRUM	0
TOTAL				**463.16**

Further, the Commission has not considered capitalisation of schemes entailing capital outlay in excess of Rs 10 Crore, but for which, no DPRs have been submitted to the Commission for approval. MSEDCL in its Petition has submitted a total capitalisation of Rs. 1108 Crore and has not segregated capitalisation into DPR schemes and Non-DPR schemes. Accordingly, the Commission has not considered any Non-DPR schemes during FY 2007-08.

Further, the capitalisation of Rs. 463.16 Crore has been approved for FY 2007-08 on a provisional basis, since MSEDCL has to establish that the projected benefits, as submitted to the Commission at the time of seeking approval of the DPR, have actually accrued. The Commission directs MSEDCL to submit the detailed report with established benefits vis-à-vis the benefits projected, within one month from the issuance of this Order.

3.6 Depreciation

The Commission, in its APR Order dated June 20, 2008, had permitted depreciation to the extent of Rs 383.53 Crore for FY 2007-08, which amounted to 3.70% of the Opening level of Gross Fixed Assets (GFA) of MSEDCL for FY 2007-08, which was stated at Rs 10370.51 Crore. MSEDCL, in its APR Petition, submitted the actual depreciation expense incurred in FY 2007-08 as Rs 408.05 Crore, at an overall depreciation rate of 3.87%, corresponding to opening GFA of Rs 10530.80 Crore.

On a query sent by the Commission seeking confirmation that depreciation has not exceeded 90% of the asset cost, MSEDCL replied that normally care is taken to compute depreciation up to 90% of the asset costs, however, in case of any computational error in depreciation is identified; the same is rectified in the subsequent years.

The Commission observed that there is considerable difference in terms of distribution of asset class between Closing Gross Fixed Assets (GFA) for FY 2006-07, as submitted in the APR Petition for FY 2007-08 and that submitted in the APR Petition for FY 2008-09, as shown in the Table below:

(Rs. Crore)

Sl.	Particulars	Closing GFA for FY 2006-07 as per APR Petition FY 2007-08	Opening GFA for FY 2007-08 as per APR FY 2008-09	Difference
1	Land and Land Rights	46.63	46.63	0
2	Land and Land Rights Lease hold	5.2	6.2	-1
3	Transformer > 100 KVA	1252.08	1252.08	0
4	Transformer <= 100 KVA	1047.42	1528.87	-481.45
5	Switchgear	89.83	89.83	0
6	Lighting Arrestor	7.52	7.52	0
7	Batteries	1.49	1.49	0
8	Underground Cables	690.87	690.87	0
9	Overhead lines	5016.17	5015.52	0.65
10	Energy Meters	455.38	1284.67	-829.29
11	Vehicles	23.65	23.65	0
12	Furniture and Fixtures	26.43	26.43	0
13	Office equipment	64.81	65.06	-0.25
14	Computers	0	0	0
15	Motors/Pumps etc.	0	0	0

Sl.	Particulars	Closing GFA for FY 2006-07 as per APR Petition FY 2007-08	Opening GFA for FY 2007-08 as per APR FY 2008-09	Difference
16	Communication Equipment	7.13	7.13	0
17	Offices and Showrooms	0	157.35	-157.35
18	Temporary Structures	2.89	2.89	0
19	Pucca Roads	5.15	9.96	-4.81
20	Fault Locating Equipment	0	0	0
21	Miscellaneous Equipment	0	0	0
22	Other Misc. Equip(Plant & Mach)	9.99	6.09	3.9
23	Misc Equip (Lines, Cable Network)	0	2.21	-2.21
24	Other Assets	0	0	0
25	Other Buildings	278.54	121.18	157.36
26	Hydraulic Works	0	0	0
27	Other & Civil Works	76.09	71.28	4.82
28	Other Plant & Machinery	518.43	40.45	477.98
29	Other Lines, Cable Network etc	897.22	65.56	831.66
30	Other Assets	7.86	7.88	-0.02
	Total	**10530.78**	**10530.8**	**-0.01**

As seen from the above Table, though there is only a very nominal difference in the overall GFA value, there is a significant difference in the assets reported under selected asset classes, even though the period is the same, and the closing assets of FY 2006-07 should be equal to opening assets of FY 2007-08. Moreover, the assets indicated as closing GFA for FY 2006-07, were based on the audited accounts of FY 2006-07. For instance:

- Value of transformers less than 100 KVA has been increased from Rs. 1047 crore to Rs. 1529 crore, which is an increase of Rs. 481 crore
- Value of energy meters has been increased from Rs. 455 crore to Rs. 1285 crore, which is an increase of Rs. 829 crore
- Value of offices and showrooms has been increased from Nil to Rs. 157 crore, which is an increase of Rs. 157 crore; the value of other buildings has been reduced correspondingly
- Value of Other Plant and Machinery has been reduced from Rs. 518 crore to Rs. 49 crore, which is a reduction of Rs. 478 crore
- Value of Other Lines, Cable network, etc., has been reduced from Rs. 897 crore to Rs. 66 crore, which is a reduction of Rs. 832 crore

Since the depreciation rate applicable for different asset classes is different, the above re-classification of assets has resulted in revising the deprecation expenses, as evident from MSEDCL's claim for higher depreciation at Rs. 408.05 Crore as against Rs. 383.53 Crore approved by the Commission. Since the asset values cannot be modified in this manner after the Accounts for FY 2006-07 have been audited, the Commission has considered the distribution of asset class for opening GFA for FY 2007-08 as per the break-up given in the APR Petition for FY 2007-08, and has accordingly computed the depreciation on opening GFA for FY 2007-08. The Commission also observes that Schedule-19 of the Statement of Accounts for FY 2007-08 of MSEDCL has shown the total addition to gross block during FY 2007-08 as Rs. 1277.71Crore. However, on the arithmetic addition of the individual asset groups, it is observed that the total asset addition during FY 2007-08 is Rs. 1268.71 Crore, indicating a difference of Rs. 9 Crore for the asset addition in the Statement of Accounts.

The Commission is of the view that such changes in accounting of assets from one year to another, as well as totalling mistakes, do not lend credibility to the Accounts presented by MSEDCL.

Further, the Commission in its APR Order dated June 20, 2008 had disallowed the capitalisation of assets pertaining to the single phasing scheme and accordingly had approved the opening GFA of Rs. 9428 Crore for FY 2006-07 as against Rs. 9508 Crore requested by MSEDCL. Accordingly, the Commission has considered the opening GFA for FY 2007-08 upon adjusting for the asset capitalisation corresponding to single phasing scheme. The opening GFA and depreciation as submitted by MSEDCL for FY 2007-08 and as approved by the Commission is shown in the Table below:

Table: Depreciation (Rs Crore)

Particulars	APR Order	Actual	Allowed after truing up
Depreciation	383.53	408.05	382.26
Opening GFA	10370.51	10530.80	10370.51
Depreciation Rate	3.70%	3.87%	3.69%

3.7 Interest Expenses

The Commission, in its APR Order dated June 20, 2008 had approved interest expenses of Rs 236.77 Crore, after considering the interest on debt corresponding to capitalised assets only. MSEDCL, in its present APR Petition, has claimed that MSEDCL's actual interest expenses on long-term loans in FY 2007-08, net of capitalisation, is Rs 241.54 Crore.

Further, MSEDCL in its Review Petition in Case No. 42 of 2008 on the Commission's Order dated June 20, 2008 in Case No. 72 of 2007, had requested the Commission to re-compute the interest expense on long-term loans for FY 2006-07, by considering the closing loan balance for FY 2005-06 (i.e., which is the opening loan balance for FY 2006-07) as per the MYT Order dated May 18, 2007 rather than the Commission's approach of considering the opening loan balance for FY 2006-07 based on the Commission's Order dated October 20, 2006. The interest expense disallowed on this account as per MSEDCL's submission is Rs. 47 Crore. On examination of documents submitted by MSEDCL, the Commission has considered the opening loan balance for FY 2006-07 (i.e., closing loan balance for FY 2005-06 as per the MYT Order dated May 18, 2007) and has permitted the interest expense to the extent of Rs. 47 Crore as submitted by MSEDCL. However, the same is being shown separately in the ARR summary, rather than under the current sub-section, since MSEDCL has considered the same in the overall ARR summary.

Accordingly, the Commission has restated the opening and closing loan balance for FY 2006-07, as shown in the Table below:

Table: Re-statement of Opening and Closing Loan Balance for FY 2006-07 (Rs Crore)

Particulars	Approved (Case No. 72 of 2007)	APR Petition for FY 2007-08	APR Petition for FY 2007-08#	Approved
Outstanding Loan at the beginning of the year (FY 2006-07)	1602	3653	2353	2353
Loan drawal during the year	715	714	714	714
Loan repayment during the year	-263	-592	-380	-380

Particulars	Approved (Case No. 72 of 2007)	APR Petition for FY 2007-08	APR Petition for FY 2007-08#	Approved
Balance outstanding at the end of the year (FY 2006-07)	2053	3775	2687	2687

Note: # Excluding short-term REC loan

Accordingly, the Commission has considered an opening loan balance of Rs. 2687 Crore for FY 2007-08 for the true-up of FY 2007-08. Further, the Commission has restricted the new loan drawal for FY 2007-08 corresponding to the total capitalisation approved for FY 2007-08 and based on the funding pattern for the DPR Projects as submitted by MSEDCL in its DPRs, while seeking in-principle approval of the DPR schemes. The funding pattern consists of various sources of funds such as debt, equity, grant and consumer contribution.

Further, the Commission enquired from MSEDCL regarding the funds utilised from consumer contribution/grants/capital subsidy for the schemes capitalised. MSEDCL, in its reply, submitted that its accounting codes do not capture the above information. MSEDCL further submitted that it has not considered any assets created from consumer contribution. However, the Commission observes that Schedule 34 of the Statement of Accounts for FY 2007-08 has shown an addition of consumer contribution of Rs. 366 Crore, For the purpose of true-up for FY 2007-08, the Commission has considered the consumer contribution of Rs. 153 Crore (i.e., 366/1108 x 463) on pro-rata basis corresponding to approved capitalisation (Rs 463 Crore) vis-à-vis total capitalisation claimed by MSEDCL (Rs 1108 Crore).

Accordingly, the Commission has considered an opening loan balance of Rs. 2687 Crore for FY 2007-08 for the true-up of FY 2007-08. The Commission has restricted the new loan drawal for FY 2007-08 to the total capitalisation approved in FY 2007-08 based on the funding pattern for the DPR Projects as submitted by MSEDCL in its DPRs as is shown in the Table below:

Table: Funding Pattern (Rs Crore)

FUNDING PATTERN	FY 2007-08

TOTAL CAPITALISATION	**463.16**
Less : GRANT	59.03
Less : CONSUMER CONTRIBUTION	153.13
FUND REQUIREMENT EXCLUDING GRANT AND CONSUMER CONTRIBUTION	**251.00**
EQUITY PERCENTAGE	*9.84%*
DEBT PERCENTAGE	*90.16%*
EQUITY	24.70
DEBT	226.30
SUB TOTAL (DEBT & EQUITY)	**251.00**

Accordingly, the Commission has considered the interest expense for FY 2007-08 as shown in the Table below:

Table: Interest Expense for FY 2007-08 (Rs Crore)

Particulars	APR Order	Actual	Allowed after truing up
Opening balance of loan	2053.38	3774.76	2686.68
Additions	1063.53	2177.08	226.30
Repayment	(312.54)	(428.94)	(428.94)
Closing balance of loan	2804.36	5522.90	2484.04
Gross Interest expenses	**236.77**	**298.10**	**257.20**
Less IDC	-	(56.57)	(23.65)
Net Interest expenses	**236.77**	**241.54**	**233.54**

3.8 Advance against Depreciation (AAD)

MSEDCL has sought approval for advance against depreciation in accordance with the MERC Tariff Regulations. Regulations 62.3 and 74.3 of MERC Tariff Regulations, stipulates that where the actual amount of loan repayment in any financial year exceeds the amount of depreciation allowable under Regulations 63.4.2 and 76.4.2, respectively, the distribution 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.

The Commission has verified the computations for advance against depreciation as claimed by MSEDCL and also re-computed the same in accordance with Regulations 62.3 and 74.3 of MERC Tariff Regulations, taking into consideration the approved level of depreciation as elaborated under earlier sub-section and approved level of principal repayment as elaborated in subsequent paragraphs.

In addition, the Commission in its Order dated June 20, 2008 in Case No. 72 of 2007 had disallowed an amount of Rs. 14 Crore towards AAD for FY 2006-07, on account of difference between the opening loan balance for FY 2006-07 as considered by the Commission and the audited accounts. In its Review Order dated December 10, 2008 in Case No. 42 of 2008, the Commission had ruled that this issue would be addressed at the time of truing up for FY 2007-08. The Commission has re-examined the difference between opening loan balance for FY 2006-07 and accordingly, this amount of Rs. 14 crore towards AAD for FY 2006-07 is being allowed under the truing up for FY 2007-08. However, the same is being shown separately in the ARR summary, rather than under the current sub-section, since MSEDCL has considered the same in the overall ARR summary.

Accordingly, Advance against Depreciation (AAD) claimed by MSEDCL and approved by Commission after true-up of FY 2007-08 is summarised in the following Table:

Table: Advance against Depreciation (Rs Crore)

Particulars	APR Order	Actual	Allowed after truing up
Loan Repayment	312.54	428.94	428.94
Depreciation	383.53	408.05	382.26
Advance Against depreciation (AAD)	**0.00**	**20.89**	**46.68**

Thus, in overall terms, the total depreciation plus AAD approved by the Commission is the same as total depreciation plus AAD sought by MSEDCL in its APR Petition.

3.9 Interest on Working Capital and Consumers' Security Deposit and Other Interest and Finance Charges

As regards Interest on Working Capital, MSEDCL submitted that the actual working capital interest incurred was Rs. 72 Crore, as compared to nil interest approved by the Commission in its previous APR Order. MSEDCL has incurred interest expenditure on the short-term loan taken from REC to the extent of Rs. 1300 crore, which has been considered under the interest on working capital, as actually incurred expenses. MSEDCL submitted that it has tied up this short-term loan from REC to support huge cash shortage and working capital gap in the year 2006. MSEDCL submitted that the major portion of this amount is spent by MSEDCL on procurement of power and to provide electricity to its consumers. MSEDCL has also booked an amount of Rs. 3 crore on account of Working Capital interest, under Other Interest and Finance Charges. Thus, the total actual working capital interest incurred by MSEDCL in FY 2007-08 is Rs. 75 crore.

MSEDCL further submitted that the Other Interest and Finance Charges including interest on consumers' security deposit amounted to Rs 199 crore, as compared to Rs 252 crore approved by the Commission, with the primary difference occurring in Interest on Security Deposit, to the extent of Rs. 34 crore.

In reply to the Commission's query, MSEDCL submitted the detailed computation of other interest and finance charges and the loan-wise guarantee fees paid in FY 2007-08. MSEDCL also clarified that the interest on consumers' security deposits are not being added to security deposit, rather, the adjustment of the same is passed on to the consumers through the billing in the subsequent year.

As regards interest on working capital, the MERC Tariff Regulations clearly stipulate that working capital interest has to be considered on normative basis. In MSEDCL's case, because of the significant amount of consumers' security deposit lying with MSEDCL and the credit period of one-month considered on power purchase expenses, the normative working capital requirement works out to be negative. Hence, the Commission has not considered any interest on working capital under the truing up exercise. However, the deviation between actual and normative interest on working capital has been considered as a controllable loss and shared between MSEDCL and the consumers in accordance with Regulation 19 of the MERC Tariff Regulations, as explained later in this Section.

MSEDCL's actual expenditure on account of interest on consumers' security deposits and other interest and finance charges has been accepted by the Commission. Thus, the total Other Interest and Finance Charges including interest on consumers' security deposit, considered by the Commission under the truing up exercise, works out to Rs 198.79 Crore.

3.10 Incentives and Discounts

MSEDCL submitted that as per audited accounts, the incentives and discounts paid to consumers was Rs 74 Crore as compared to Rs 75 Crore approved by the Commission in the APR Order. The Commission has considered the actual expenditure on this account under the truing up exercise.

3.11 Other Expenses

MSEDCL submitted that the actual Other Expenses incurred by MSEDCL was Rs 18 Crore as compared to Rs 5 Crore approved by the Commission in the previous APR Order, which was mainly attributable to expenses incurred by MSEDCL as per the Commission's Orders dated November 24, 2003, Clarificatory order dated September 12, 2006 and Appellate Tribunal Judgment dated February 5, 2008, on account of which, MSEDCL had to pay interest on delayed payments to all Wind Developers having any type of valid No-Objection Certificate (NOC). Thus, interest to suppliers/contractors amounting to Rs 12.92 Crore has been booked during FY 2007-08.

The expense of Rs 12.92 Crore claimed by MSEDCL is actually payment of penal interest to Wind Developers, due to delay in payment of invoices raised by the Wind Developers. The Commission is aware that MSEDCL has legally agitated this matter before the Commission and the Appellate Tribunal for Electricity (ATE), and has paid the penal interest only after its Petitions/Appeals in this regard have been dismissed. Had MSEDCL paid the invoices on time, there would have been no incidence of penal interest. The Commission is of the view that it would be unfair to the consumers if the penal interest, which has been incurred on account of MSEDCL's failure to pay the invoices in time, is allowed to be recovered from the consumers. Therefore, the Commission has disallowed Rs 12.92 Crore pertaining to the payment made to Wind Developers and has allowed the balance actual expenditure of Rs. 4.92 crore incurred under Other Expenses, which is very close to the amount of Rs. 5 crore allowed by the Commission in the APR Order.

3.12 Provisioning for Bad Debts

In the APR Order for FY 2007-08, the Commission had allowed provisioning for bad debts to the extent of 1.5% of revenue, which worked out to Rs 267 Crore. In the APR Petition, MSEDCL submitted that it has actually provided for bad debts to the extent of Rs 303 Crore.

For the purposes of truing up for FY 2007-08, the Commission has considered provisioning for bad debts as 1.5% of the revenue from sale of electricity, which works out to Rs 301.5 Crore.

3.13 Contribution to Contingency Reserves

MSEDCL submitted that the contribution to contingency reserves for FY 2007-08 has been considered at 0.5% of opening GFA amounting to Rs 52 Crore, in accordance with the MERC Tariff Regulations, as approved by the Commission in the APR Order.

The MERC Tariff Regulations stipulate that the amount appropriated under contingency reserve shall be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months of the close of the financial year. In its APR Petition, MSEDCL submitted that the amount of Rs. 52 crore has not been invested in approved securities till date, owing to the precarious financial position of MSEDCL; however, MSEDCL would make efforts to invest this amount in specified investments by March 31, 2009.

The Commission sought documentary evidence from MSEDCL to confirm that the contingency reserve has been invested in the approved securities, since the month of June 2009 was about to be completed. In reply, MSEDCL submitted that the contingency Reserve amounting to Rs.52.63 Crore had been invested in prescribed securities on May 8, 2009.

The Commission has considered the contribution to contingency reserves at 0.5% of opening GFA for FY 2007-08, which works out to Rs 52 Crore, based on the actual capitalisation and opening GFA considered by the Commission for FY 2007-08. However, the Commission expresses its displeasure at MSEDCL's policy of delaying the investment of the contingency reserve funds. The primary objective of creation of a contingency reserve fund is to have funds readily available to meet unforeseen eventualities requiring significant amount of funds for mitigation. However, if MSEDCL is using these funds to meet its regular expenses, them such funds will not be available, as and when they are actually needed, thus, defeating the purpose of creation of a Contingency Fund. MSEDCL should ensure that the funds provided for under Contingency Reserve are invested in the approved securities, strictly in accordance within the timeframe specified in the MERC Tariff Regulations.

3.14 Prior Period Charges

MSEDCL submitted that prior period credits for FY 2007-08 amounted to Rs 26.27 Crore, which has been considered by the Commission under the truing up exercise.

3.15 Return on Equity (RoE)

MSEDCL submitted that it has computed return on equity in accordance with the MERC Tariff Regulations, and claimed lower return on equity of Rs 545 Crore for FY 2007-08 as against RoE of Rs 554.89 Crore approved by the Commission in the APR Order dated June 20, 2008.

As regards opening balance of equity for FY 2006-07, MSEDCL submitted that the GOM notified the provisional Transfer Scheme No Reform 1005/CR 9061/NRG-5 dated June 4, 2005. Under the provisional Transfer Scheme, the assets and liabilities were allocated to the successor entities (MSEB Holding Company, Generation Company, Transmission Company and MSEDCL) based on the accounts of erstwhile MSEB as on March 31, 2004. The provisional Transfer Scheme was made effective from June 6, 2005. The allocation was thus, provisional. The equity for MSEDCL was considered as Rs 2250 Cr, which was provisional. Later on, when the actual accounts as on June 5, 2005 were prepared after considering various adjustments during transfer/allocation of assets and liabilities, the same were allocated to the successor entities (MSEB Holding Company, Generation Company, Transmission Company and MSEDCL). Accordingly, based on this final allocation as on June 5, 2005, the Board of Directors of MSEB Holding Company passed a Resolution on September 26, 2006 to adopt the final allocation/transfer of assets and liabilities. The final equity for MSEDCL after allocation was considered as Rs 3083.93 Cr. Based on the above opening Balance Sheet as on June

6, 2005 as approved by MSEB Holding Company, the accounts of MSEDCL were prepared and duly audited.

The Commission is of the view that before computation of RoE for FY 2007-08, it is essential to review the opening balance and closing balance of the regulated equity for FY 2006-07. The Commission, in its Order dated June 20, 2008 had approved total capitalisation of Rs. 942.78 Crore for FY 2006-07 with corresponding loan drawal of Rs. 714.62 Crore and equity portion of expenditure capitalised as Rs. 308.16 Crore. However, as per Schedule 34 of the Statement of Accounts for FY 2007-08 of MSEDCL, it is observed that there exists a consumer contribution to the extent of Rs. 366.33 Crore received during FY 2006-07. Since, the Commission has considered loan contribution of Rs 714.62 Crore during FY 2006-07 to fund the capitalised asset value of Rs 942.78 Crore, and the consumer contribution amounts for the remaining funds, there is no case for allowing addition to equity or capitalised asset value funded by way of equity contribution during FY 2006-07. The same is shown in the Table below:

Table: Re-statement of Equity portion for capitalisation of FY 2006-07 (Rs Crore)

Particulars	(Apr-Mar) Audited	APR Order	Approved (After re-statement)
TOTAL CAPITALISATION	1,022.78	942.78	942.78
LESS: CONSUMER CONTRIBUTION	-	-	228.16
NET CAPITALISATION	**1,022.78**	**942.78**	**714.62**
DEBT PORTION	714.25	714.62	714.62
EQUITY PORTION	306.83	308.16	-

It can be observed that since the equity portion of total capitalisation for FY 2006-07 has been considered as nil, the corresponding RoE for FY 2006-07 has been re-computed in the Table as shown below:

Table: Re-statement of Return on Equity portion for FY 2006-07 (Rs Crore)

Particulars	Order	(Apr-Mar) Audited	APR Order	Approved (After re-statement)	Difference
1	**2**	**3**	**4**	**5**	**6=5-4**

Reg. Equity at beginning of year	2443.00	3083.93	3083.93	3083.93	
Equity Portion of Capitalised Expenditure	0.00	306.83	308.16	0.00	
Reg. Equity at the end of the year	2443.00	3390.77	3392.10	3083.93	
Return on Reg. Equity at beginning of year	390.88	493.43	493.43	493.43	
Return on Equity Portion of Capital Expenditure Capitalised	0.00	24.55	24.65	0.00	
Total Return on Regulated Equity	**390.88**	**517.98**	**518.08**	**493.43**	**(24.65)**

Accordingly, the excess RoE of Rs. 24.65 Crore (i.e., Rs. 518.08 Crore – Rs. 493.43 Crore) needs to be disallowed, and the same has been deducted from the RoE computation for FY 2007-08 as shown in the subsequent Tables.

In the context of RoE computation for FY 2007-08, MSEDCL has submitted that Rs. 127.43 Crore was received during FY 2007-08 as contribution in equity base from MSEB Holding Company Limited. This has increased the equity base of MSEDCL from Rs. 3083.93 Crore to Rs. 3211.36 Crore as per audited accounts of MSEDCL for FY 2007-08.

MSEDCL has further submitted that the equity portion of capitalization during FY 2007-08 has been obtained by taking the ratio in which, equity contribution has been made to meet Capital Expenditure and the same is multiplied to total assets capitalized, which were funded through internal accruals. MSEDCL has maintained equity infusion equivalent to funding from Internal Accruals, which has resulted in provision of Rs.431 Crore (around 42 %) as equity portion of asset capitalized in FY 2007-08 for computation of RoE. MSEDCL has considered normative equity of 30% in accordance with MERC Tariff Regulations, and the balance 12% has been considered as normative loan for calculation of Return on Equity. Normative rate has been considered on 30% and on balance 12% a nominal rate of return of 11% per annum considered for calculation of Return on Equity.

Based on the capitalisation approved for FY 2007-08, the Commission has computed the RoE for FY 2007-08, based on the revised opening regulated equity for FY 2007-08 (i.e., revised closing regulated equity for FY 2006-07) as discussed in earlier paragraphs, and after deducting the grants and consumer contribution, which are not entitled to Return, as shown in the Table below:

Table: Return on Equity for FY 2007-08 (Rs Crore)

Particulars	APR Order	(Apr-Mar) Audited	Allowed After truing up
Reg. Equity at beginning of year	3392.10	3211.41	3083.93
Total Capitalisation	1215.46	1107.78	463.16
Less: Grants	-	(90.01)	(59.03)
Less: Consumer Contribution	-		(153.13)
Net Capitalisation		1017.77	251.00
Equity Portion of Capitalised Expenditure	151.93	431.21	24.70
Reg. Equity at the end of the year	3544.03	3642.61	3108.63
Return on Reg. Equity at beginning of year	542.74	513.83	497.38
Return on Equity Portion of Capital Expenditure Capitalised	12.15	24.43	1.98
Return on excess portion of equity		6.92	0.00
Total Return on Regulated Equity	**554.89**	**545.18**	**499.36**
Less: Excess RoE for FY 2006-07			(24.65)
Net Return on Regulated Equity			**474.70**

3.16 Income Tax

MSEDCL has not paid any income tax for FY 2007-08, and hence, no income tax expense has been considered under the truing up exercise.

3.17 Non Tariff Income

MSEDCL submitted that the actual non-tariff income of MSEDCL during FY 2007-08 was Rs 841 Crore as compared to Rs 904 Crore approved by the Commission in the APR Order.

The Commission while approving the Non Tariff Income has considered the interest from investment of contingency reserve, since the balance under the contingency reserve will earn interest. Further, the Commission has also considered the income from recovery from theft of power under Non Tariff Income, since the Commission is of the view that this income should not be included under tariff from sale of electricity, as done by MSEDCL. In the APR Order also, the income from recovery from theft of power was considered under Non Tariff Income. Also, this approach ensures that the projection of revenue from sale of electricity is reflective of the category-wise sales and tariffs, and does not have other elements such as income from recovery from theft of power.

Thus the Non-tariff income allowed by the Commission after truing up is as shown in the Table below:

Table: Non-Tariff Income (Rs Crore)

Particulars	APR Order	Actuals	Allowed after truing up
Non-Tariff Income	904	841	900

The income from wheeling charges has been considered as Rs. 6.09 crore, based on the audited accounts, which is in addition to the Non Tariff Income considered above.

3.18 Sharing of Efficiency Gains and Losses for FY 2007-08 due to Controllable Factors

MSEDCL categorised all the expenditure as uncontrollable and hence, did not compute the gains and losses for other controllable heads of expenditure. The relevant provisions under the MERC Tariff Regulations stipulating sharing of gains/losses due to controllable factors are reproduced below:

> *"17.6.2 Some illustrative variations or expected variations in the performance of the applicant which may be attributed by the Commission to controllable factors include, but are not limited to, the following:*
>
> *(a) Variations in capital expenditure on account of time and/ or cost overruns/efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;*
>
> *(b) Variations in technical and commercial losses, including bad debts;*
>
> *(c) Variations in the number or mix of consumers or quantities of electricity supplied to consumers as specified in the first and second proviso to clause (b) of Regulation 17.6.1;*
>
> *(d) Variations in working capital requirements;*

(e) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted in accordance with those Regulations;
(f) Variations in labour productivity;
(g) Variations in any variable other than those stipulated by the Commission under Regulation 15.6 above, except where reviewed by the Commission under the second proviso to this Regulation 17.6.
…
19.1 The approved aggregate gain 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 gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10;
(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 under clause (b) of Regulation 19.2; and
(c) The balance amount of gain may be utilized at the discretion of the Generating Company or Licensee.

19.2 The 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."

The Commission is of the view that all expenditure and revenue heads cannot be considered as uncontrollable, which would mean that the Licensee has no control over any of its activities, and the actuals are to be passed through to the consumers. The Commission has considered certain controllable expenses and revenue for computing the sharing of gains/losses in accordance with the provisions of MERC Tariff Regulations, as elaborated in the following paragraphs.

O&M Expenditure

The actual A&G and R&M expenditure has been higher than that allowed by the Commission, which has been considered as efficiency loss and shared in accordance with the MERC Tariff Regulations as reproduced above. One-third of the efficiency loss has been passed on to the consumers through increase in the trued up ARR of FY 2007-08 and the balance amount of the efficiency loss has to be absorbed by MSEDCL. The summary of sharing of efficiency gain is shown in the Table below.

Sl.	Particulars	APR Order	MSEDCL APR Petition	Approved after Truing up	Efficiency Gain/ (Loss)	Efficiency Gain/ (Loss) shared with consumers	Net Entitlement before passing on to reserves
1	Administration & General Expenses	156	219	189	-30	-10.07	199.24
2	Repair & Maintenance Expenses	436	526	436	-90	-30.06	465.68

Interest on Working Capital

As discussed in the above paragraphs, the actual interest on working capital incurred by MSEDCL during FY 2007-08 is Rs. 75 crore, as against Nil normative interest on working capital approved by the Commission considering other elements of expenses as approved after truing up. As stated earlier, the Commission has considered the difference between the actual interest on working capital and normative interest, amounting to Rs. 75 crore, as an efficiency loss and shared the same between MSEDCL and the consumers in accordance with the MERC Tariff Regulations. Thus, Rs. 25 crore (1/3rd of Rs. 75 crore) has been passed on to the consumers through increase in tariff, and the balance amount of the efficiency loss has to be absorbed by MSEDCL

Distribution Loss Achievement

MSEDCL has computed the distribution loss in FY 2007-08 as 24.09% and submitted that over-achievement of 2.11% translates to revenue of Rs. 425 crore (2.11% of Rs. 20159 crore). MSEDCL submitted that 2/3rd of this amount, i.e., Rs. 284 crore, should be provided in the revenue requirement of FY 2007-08, since MSEDCL was entitled to retain 1/3rd and 1/3rd would be passed on to the special reserve.

As discussed earlier in this Section, the Commission has re-computed the distribution loss achieved by MSEDCL as 24.15% in FY 2007-08, as compared to the trajectory of 26.2% specified by the Commission in the MYT Order for MSEDCL, in Case No. 65 of 2006. The efficiency gains have to be shared between MSEDCL and the consumers in accordance with the MERC Tariff Regulations, as reproduced above.

The Commission has computed the efficiency gains by considering the additional sales that have become possible due to the lower distribution loss, at the actual average billing rate of MSEDCL in FY 2007-08, as shown in the Table below:

Particulars	**Units**	**Amount**
Normative distribution losses	%	26.20%
Normative sales considering same energy input	MU	54209.4
Additional/(Lower) sales due to actual distribution loss	MU	1505
Average Billing Rate	Rs/kWh	3.51
Additional/(Lower) revenue due to actual distribution loss	Rs. Crore	**528.50**
Amount retained by MSEDCL	Rs. Crore	176.17
Amount passed on to special reserve – to be utilised for part refund of RLC in FY 2009-10	Rs. Crore	176.17
Amount passed on to consumers	Rs. Crore	176.17

Thus, an amount of Rs. 352.3 crore (176.17 x 2) has to be added to the revenue requirement of FY 2007-08 after final truing up, under this head. As mentioned in the Table above, rather than parking 1/3rd of the efficiency gains in the special reserve in the last year of the first Control Period, the amount of Rs. 176.2 crore has been used to fund additional refund of RLC. The Commission is of the view that it is more appropriate to use these funds to refund the RLC, since the original Order of the Commission had envisaged that the funds for RLC refund would come from accelerated reduction in distribution losses. Moreover, this amount is not available to MSEDCL for normal use, since the same would have had to be passed on a special reserve. All these reserves are to be eventually used to reduce the burden on the consumers. This move will also ensure refund of RLC in an accelerated manner. At the same time, MSEDCL's 1/3rd share of the efficiency gain has been allowed to be retained by MSEDCL, since the Commission is of the view that MSEDCL needs to be adequately incentivised to reduce the distribution losses further.

Total Addition to Revenue Requirement on account of Efficiency Gains and Losses

Based on the above computations, the total addition to the revenue requirement on account of sharing of efficiency gains and losses between MSEDCL and the consumers, works out as under:

(Rs. Crore)

Sl.	Particulars	Amount
1	Administration & General Expenses	10.07
2	Repair & Maintenance Expenses	30.06
3	Interest on Working Capital	25.05
4	Efficiency gains on account of distribution losses	352.34
5	**TOTAL**	**417.52**

3.19 Aggregate Revenue requirement for FY 2007-08 after truing up

The Aggregate Revenue Requirement for FY 2007-08 after final truing up is summarised in the Table below:

Table: Aggregate Revenue Requirement for FY 2007-08 after Final Truing Up

(Rs. Crore)

Sl.	Particulars	FY 2007-08		
		APR Order	(Audited)	Allowed after final truing up
1	Power Purchase Expenses	14963	15537	15518
2	Operation & Maintenance Expenses			
2.1	Employee Expenses	1727	1782	1782
2.2	Administration & General Expenses	156	219	189
2.3	Repair & Maintenance Expenses	436	526	436
3	Depreciation, including advance against depreciation	384	429	429
4	Interest on Long-term Loan Capital	237	242	234
5	Interest on Working Capital, consumer security deposits and Finance Charges	252	202	199
6	Provision for Bad & Doubtful Debts	267	302	301

Sl.	Particulars	FY 2007-08		
		APR Order	(Audited)	Allowed after final truing up
7	Other Expenses	5	18	5
8	Income Tax	0	0	0
9	Transmission Charges and SLDC Fees & Charges	1460	1469	1472
10	Contribution to contingency reserves	52	52	52
11	Sharing of gains and losses due to controllable factors			418
12	Incentives/Discounts given to consumers	75	74	74
13	Interest on Working Capital required on account of REC short term loan		72	
14	**Total Revenue Expenditure**	**20014**	**20924**	**21107**
15	Return on Equity Capital	555	545	475
16	**Aggregate Revenue Requirement**	**20569**	**21469**	**21582**
17	Less: Non Tariff Income	904	841	900
18	Less: Income from wheeling charges			6
22	Less: Net Prior Period Charges		26	26
24	**Aggregate Revenue Requirement from Retail Tariff**	**19665**	**20603**	**20650**

Thus, the ARR of MSEDCL for FY 2007-08 works out to Rs. 20650 crore as compared to Rs. 20603 crore considered by MSEDCL, primarily on account of the sharing of gains and losses due to controllable factors, as MSEDCL has included the sharing of efficiency gains due to lower distribution losses under the computation of overall revenue requirement, rather than under FY 2007-08 as done by the Commission. If this entry is not considered in FY 2007-08, then the revenue requirement considered by the Commission for FY 2007-08 after final truing up amounts to Rs. 370 crore.

3.20 Revenue Gap for FY 2007-08 after truing up

MSEDCL has submitted that the actual revenue from sale of electricity in FY 2007-08 was Rs. 20159 crore. As discussed earlier in this Section, the Commission has considered the income from recovery from theft of power under Non Tariff Income, rather than under revenue from sale of electricity. Based on the above ARR and the re-stated revenue from sale of electricity, the revenue gap for FY 2007-08 has been computed as given in the Table below:

Table: Revenue Gap for FY 2007-08 **(Rs. Crore)**

Particulars	MSEDCL APR Petition	Commission
Aggregate Revenue Requirement	20603	20650
Total Revenue from Sale of Electricity	20159	20099
REVENUE GAP	**443.5**	**551.5**

The revenue gap of Rs. 551.5 crore has been included while computing the consolidated revenue requirement for FY 2009-10, as elaborated in Section 5.2 of this Order.

4 PERFORMANCE REVIEW OF FY 2008-09 AND DETERMINATION OF AGGREGATE REVENUE REQUIREMENT FOR FY 2009-10

4.1 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."*

4.1.1 Distribution Loss

The actual level of distribution loss achieved by MSEDCL in FY 2006-07 was 30.2%, which becomes the opening level for the MYT Control Period from FY 2007-08 to FY 2009-10. The Commission directed MSEDCL to reduce the distribution losses by 4% during each year of the Control Period, through a combination of reduction of both commercial and technical losses. Thus, considering a loss reduction of 4% each in FY 2008-09 and FY 2009-10 as stipulated in the MYT Order, the distribution loss level to be considered for FY 2008-09 and FY 2009-10 works out to 22.2% and 18.2%, respectively.

In its APR Petition, MSEDCL considered a loss reduction of 4% for estimating the Energy Balance for FY 2008-09. However, for FY 2009-10, MSEDCL submitted that it has considered a realistic loss reduction target of 1%, thus considering a distribution loss level of 21.2% for estimating the Energy Balance for FY 2009-10.

The Commission directed MSEDCL to submit a Supplementary Submission addressing the issues identified by the Commission in the context of the revised Petition and replies to data gaps after TVS submitted by MSEDCL. MSEDCL was directed to inter-alia, consider the distribution loss reduction trajectory during FY 2009-10 as 4% in accordance with the trajectory approved in the MYT Order, rather than the 1% loss reduction considered by MSEDCL for projecting the energy balance for FY 2009-10.

In reply, MSEDCL submitted the Supplementary Submission, which made public as a part of the Main Petition. In the Supplementary Submission, MSEDCL submitted the revised Energy Balance for FY 2009-10, by considering the distribution loss reduction trajectory during FY 2009-10 as 4%. However, MSEDCL submitted that

> *"…the above scenario is exclusively indicative and academic in nature as MSEDCL considers that distribution loss reduction of more than 1% from current level is not a realistic task.*
>
> *The MSEDCL prays to the Hon'ble Commission that 4% loss reduction in distribution loss is an academic exercise, which is not based on realistic assumption. Hence, MSEDCL prays before Hon'ble Commission that target of distribution loss reduction for the FY 2009-10 shall be considered as 1%, which will be realistic and achievable."*

In this context, during the public regulatory process on MSEDCL's APR Petition, several consumers and Consumer Representatives objected to MSEDCL's proposal to reduce distribution losses by only 1% in FY 2009-10, and suggested that the distribution loss reduction trajectory should be retained at 4% or even increased further.

It should be noted that the distribution loss trajectory specified by the Commission for MSEDCL vide its MYT Order dated May 18, 2007 issued by the Commission in Case No. 65 of 2006 has neither been challenged nor set aside by any higher Court, and is hence, still applicable and valid. Moreover, MSEDCL's overall loss levels in FY 2007-08 was significantly lower than the normative level of 26.2%, and MSEDCL has earned incentive to the extent of around Rs. 350 crore on this account, as elaborated in Section 3 of the Order. In FY 2008-09 also, the provisional numbers as submitted by MSEDCL indicate that the distribution loss level is 21.98%, which is better than the normative level of 22.2% specified in the MYT Order. Though the distribution loss level estimated by the Commission works out to be slightly higher at 22.48% based on the provisional data, it is only 0.28% higher than the normative level of 22.2% specified in the MYT Order. Hence, there appears to be no reason to doubt that MSEDCL can achieve the distribution loss reduction trajectory of 4% in FY 2009-10. Further, though MSEDCL is reporting overall distribution losses of 21.98% in FY 2008-09, based on data submitted by MSEDCL, it is apparent that there are still several Circles, where the distribution loss levels are quite high, as summarised in the Table below:

Table: Circle-wise Distribution Losses in FY 2008-09

Sl.	Distribution losses	Number of Circles	Percentage of Circles
1	>40%	2	5%
2	> 35%	6	15%
3	> 30%	11	28%
4	> 25%	17	43%

As seen from the above summary, there are 17 Circles out of the total 40 Circles, i.e., 43% of the Circles, where the distribution losses are higher than 25%. Similarly, 11 out of the 40 Circles (28%) have distribution losses are higher than 30%, and so on. There are around 140 Divisions in MSEDCL licence area, and each of these Circles consists of 3 to 4 Divisions. Hence, there will be even more number of Divisions, where the distribution losses are higher than 25% to 30%, which only proves that there is still ample scope for reduction of distribution losses by MSEDCL.

It should also be noted that most of the DISCOMs in the States of Gujarat and Andhra Pradesh, which are States comparable to Maharashtra, had distribution losses ranging from 15% to 18% in FY 2008-09, which are expected to reduce to 13% to 15% in FY 2009-10. Considering the capital expenditure planned by MSEDCL and the cost-benefit analysis indicated by MSEDCL while seeking in-principle approval of the capital expenditure schemes, the Commission is of the view that it should be possible for MSEDCL to reduce the distribution losses to 18.2% in FY 2009-10.

The Commission has hence, considered the distribution loss levels of 18.2% to assess the energy requirement for FY 2009-10.

4.2 Provisional Truing-up for FY 2008-09

MSEDCL, in its APR Petition for FY 2008-09 and ARR and Tariff Petition for FY 2009-10, submitted the performance for FY 2008-09 based on actual performance for the first half of the year, i.e., April to September 2008, and estimated performance for the second half of the year, i.e., October 2008 to March 2009. MSEDCL submitted the comparison of each element of expenditure and revenue with that approved by the Commission in its Order dated June 20, 2008 on MSEDCL's Annual Performance Review for FY 2007-08 and Tariff Determination for FY 2008-09.

The Commission will undertake the final truing up of the revenue requirement and Revenue for FY 2008-09 once the audited accounts of MSEDCL for FY 2008-09 are available, i.e., during Annual Performance Review for the third year of the Control Period, viz., FY 2009-10. However, the Commission in this Order on APR for FY 2008-09 and determination of ARR for FY 2009-10 has considered provisional truing up of certain elements of the revenue requirement and revenue, in cases where the impact is very high, or there is a change in principles/methodology, and due to revision in capital expenditure/capitalisation figures. The revised estimate of performance of MSEDCL during FY 2008-09 and FY 2009-10 as compared to the Commission's APR/MYT Order for MSEDCL is discussed in the following paragraphs.

The Commission clarifies that the final truing up and the computation of sharing of gains and losses due to uncontrollable factors will be undertaken only after the audited expenses and revenue are available. Further, for computing sharing of efficiency gains/losses for FY 2008-09, the revised expenses approved for FY 2008-09 in this Order under the provisional truing up exercise will be considered as base expenses.

4.3 Sales

MSEDCL submitted that the past five years' CAGR has been considered as the basis for the sales projection, which is also the methodology adopted by the Central Electricity Authority (CEA) in the 17th Electric Power Survey (EPS). MSEDCL added that the above sales projections cover only the restricted sales, and as MSEDCL is sourcing all the power available to mitigate the load shedding to the extent possible, there was some additional energy available for sales. Therefore, MSEDCL assumed that additional energy is available for consumption by the consumers in LT categories, who are the primary sufferers of load shedding. The additional energy available has been allocated to the LT categories, except LT un-metered agricultural category, in proportion to the actual consumption mix.

As stated in Section 3 of this Order, based on the methodology adopted by the Commission in previous Orders, MSEDCL has computed consumption of un-metered agriculture consumers for FY 2007-08 as 7322 MU. MSEDCL submitted that it has considered that LT IV Agriculture (Un-metered) consumption would remain same for FY 2007-08, FY 2008-09 and FY 2009-10, since, MSEDCL has stopped extending un-metered connections and moreover, higher growth rate has been considered for LT IV Agriculture (Metered) category. While detailing the projected consumption by LT IV un-metered agricultural category, MSEDCL submitted that consumption would marginally reduce from 7322 MU in FY 2007-08 to 7126 MU in FY 2008-09 and would remain same for FY 2008-09 and FY 2009-10.

MSEDCL projected the sales to HT category for FY 2008-09 and FY 2009-10 as 26547 MU and 28697 MU, respectively. The sales of LT category for FY 2008-09 and FY 2009-10 have been projected as 32082 MU and 35659 MU, respectively. The total sales projected by MSEDCL for FY 2008-09 and FY 2009-10, is 58629 MU and 64356 MU, respectively, as compared to actual sales of 55715 MU in FY 2007-08.

For FY 2008-09, the Commission obtained the details of category-wise sales for the period from April 2008 to March 2009, from MSEDCL, which works out to 57796 MU. This includes the sales to Bhiwandi franchisee area, though MSEDCL has not given the category-wise break-up of sales to Bhiwandi franchisee area. The actual un-metered agricultural consumption has been indicated slightly lower by MSEDCL, at 7097 MU, for FY 2008-09. As shown in the Table below, the actual sales in FY 2008-09 have been lower than that estimated by MSEDCL in its APR Petition, by around 833 MU. However, if one considers the sales considered by the Commission in the APR Order, the actual sales are lower by around 6000 MU. Thus, it is clear that the additional sales estimated by MSEDCL on account of the additional energy availability has not materialised in FY 2008-09.

For FY 2009-10, the Commission has generally considered the 3-year and 5-year CAGR of sales for each category as appropriate, by considering the period from FY 2003-04 to FY 2008-09. For some categories like HT IV PWW and LT IV agricultural metered category, the Commission has considered the year-on-year growth rate for projection purposes, since they appeared to be more representative. The sales to LT un-metered agriculture category has been considered as 7097 MU in FY 2009-10, at the same level as reported by MSEDCL for FY 2008-09.

Further, considering the Commission's projections of energy availability, as discussed in the subsequent sub-section, based on the current status of different projects and commitment from MSEDCL to procure the same, there is a surplus energy availability of around 2969 MU, which works out to around 2429 MU available for sales to different categories, after deducting distribution losses. The Commission has computed the additional revenue that can be earned through this additional sale by apportioning the additional energy availability primarily to the LT consumer categories (and HT V and Mula Pravara, since they are also affected by load shedding) in proportion to the consumption mix, since they are affected by load shedding. However, the category-wise sales have not been modified to include the projected surplus availability, and only the additional revenue has been computed by considering the additional sales at the average billing rate for the respective category.

The category-wise sales projected by MSEDCL and approved by the Commission in this Order are given in the Table below:

Consumer Category & Consumption Slab	FY 2007-08	FY2008-09				FY2009-10	
		APR Order	MSEDCL APR Petn - FY09	Actuals	Allowed after provisional truing up	MSEDCL APR Petition	Approved
HT Category							
HT I - Industry	**21779**	**22566**	**21689**	**20824**	**20824**	**23425**	**22646**
Continuous Industry (on express feeder)	12568	13284	13411	12952.75	12952.75	14484	14086
Non-continuous Industry (not on express feeder)	9103	9164	8207	7756.53	7756.53	8863	8435
Seasonal Industry	108	118	71	115.02	115.02	79	125
HT II - Commercial (new category)	**86**		**783**	**874**	**874**	**900**	**1005**
HT – III - Railway Traction	**1206**	**1276**	**1274**	**1286**	**1286**	**1351**	**1355**
HT IV - PWW	**1179**	**930**	**1256**	**1263**	**1263**	**1344**	**1353**
Express Feeders	568	582	800	916.71	916.71	0	982

Consumer Category & Consumption Slab	FY 2007-08	FY2008-09				FY2009-10	
		APR Order	MSEDCL APR Petn - FY09	Actuals	Allowed after provisional truing up	MSEDCL APR Petition	Approved
Non- Express Feeders	610	348	456	346.14	346.14	0	371
HT V- Agriculture	**472**	**575**	**467**	**439**	**524**	**491**	**551**
HT- VI	**469**	**496**	**477**	**453**	**453**	**525**	**484**
Group Housing Society	378	411	365	360.67	360.67	0	385
Commercial Complex	91	85	112	92.23	92.23	0	98
HT Poultry/SP. AG				**85.85**			
INTERSTATE	0		0	0.35	0.35	0	
P.D. Consumers	0		0	0.00		0	
MPECS	**661**	**672**	**600**	**655**	**655**	**660**	**655**
Sale to TPC		272					
HT TOTAL	**25852**	**26786**	**26546**	**25880**	**25880**	**28697**	**28048**
LT Category							
LT I - Domestic	9226	11629	10483	10298	10298	11961	11327
BPL	17	22	48	49.30	49.30	52	53
LT I - Domestic	**9210**	**11607**	**10434.87**	**10248.42**	**10248.42**	**11909**	**11273**
0-30 Units			3271	3311.23	3311.23		3642
31-100 Units			3749	3712.23	3712.23		4083
101- 300 Units			2435	2347.46	2347.46		2582
301-500 Units			398	379.79	379.79		418
Above 500 units (Only balance Units)			580	497.71	497.71		547
LT II - Non Domestic	**2404**	**2856**	**2740.53**	**2709.40**	**2709.40**	**3097**	**3062**
0-20 kW			2367	2301.04	2301.04		2601
>20 - 50 kW			300	324.40	324.40		367
> 50 kW			74	83.96	83.96		95
LT III - Public Water Works	**537.36**	**868**	**475.07**	**477.85**	**477.85**	**508.25**	**487**
0- 20 KW	397		307	328.43	328.43		335
>20-40 KW	38		116	96.41	96.41		98

Consumer Category & Consumption Slab	FY 2007-08	FY2008-09				FY2009-10	
		APR Order	MSEDCL APR Petn - FY09	Actuals	Allowed after provisional truing up	MSEDCL APR Petition	Approved
>40-50 KW	102		53	53.01	53.01		54
LT IV - Agriculture	**11851**	**15558**	**12377**	**12242**	**12242**	**13460**	**12942**
Un-metered Tariff	7322	7939	7126	7096.80	7097	7126	7097
Category 1 Zones*	0		0				
Category 2 Zones#	0		0				
Metered Tariff (including Poultry Farms)	4529	7619	5251	5145.37	5145.37	6333	5845
LT V - Industrial	**5048.39**	**4971**	**5157.46**	**3085.98**	**5310.25**	**5729**	**5828**
0-20 kW (upto and including 27 HP)	2125		2514	1119.71	2909.75		3194
Above 20 kW (above 27 HP)	2923		2644	1966.27	2400.50		2635
LT V - Powerloom			0	2224.27			
0-20 kW (upto and including 27 HP)			0	1790.04			
Above 20 kW (above 27 HP)			0	434.23			
LT VI - Street Light	**666.6**	**768**	**673.59**	**696.3**	**696.3**	**709**	**732**
Grampanchayat, A, B & C Class Municipal Council	399		406	415.60	415.60		437
Municipal Corporation Areas	268		268	280.70	280.70		295
LT VII - Temporary	**111.77**	**200**	**172.97**	**177.27**	**177.27**	**190**	**266**
Temporary Connections –Other Purpose	112		172	176.17	176.17		264
Temporary Connections - Religious	0		1	1.10	1.10		2
LTVIII - Advertisement & Hoardings	**4**	**5**	**3**	**2.79**	**2.79**	**5**	**3**
LT IX – Crematoriums & Burial Grounds :- New category created	**0**		**1**	**0.53**	**0.53**		**0.53**
SHOPPING MALLS	13	135	0	3.68	3.68		
LT TOTAL	**29863**	**36989**	**32082**	**31916**	**31916**	**35659**	**34648**
GRAND TOTAL	**55715**	**63776**	**58629**	**57796**	**57796**	**64356**	**62696**

Thus, the total sales considered by the Commission for FY 2008-09 and estimated for FY 2009-10 is 57796 MU and 62696 MU, as compared to MSEDCL's estimate of 58629 MU and 64356 MU, respectively, in its APR Petition.

4.4 Distribution Losses and Energy Balance

As discussed earlier, the Commission has considered the distribution losses for FY 2008-09 and FY 2009-10 as 22.2% and 18.2%, respectively, as compared to MSEDCL's projections of 22.2% and 21.2% FY 2008-09 and FY 2009-10, respectively. Thus, the total power purchase required to be done by MSEDCL in FY 2009-10, has been approved as 84641 MU, as elaborated in the Table below and the subsequent paragraphs, based on the energy balance and after considering inter-State and intra-State losses as applicable on the power purchase quantum.

Particulars	Units	FY 2008-09		FY 2009-10		
		MSEDCL	Provisional	MSEDCL APR Petition	MSEDCL Supplementary Petition	Approved
Purchase from MSPGCL	MU	46,667	46257	48,091	47419	49093
Purchases from other sources within the State	MU	8,069	7913	11,623	11,623	11938
Total Purchase from within the State	**MU**	**54,736**	**54,170**	**59,714**	**59,042**	**61,031**
Effective gross purchase from outside the State	**MU**	**25,710**	**25,575**	**27,509**	**27,509**	**23,610**
Central Generating Station	MU	*22,532*	*22633*	*24,509*	*24,509*	*22582*
UI	MU	*703*	*778*	*0*	*0*	*0*
Kawas/ Gandhar/ Traders	MU	*2,475*	*2164*	*3000*	*3,000*	*0*
Inter-State transmission losses	%	4.84%	4.83%	5.05%	5.05%	4.70%
Net purchase from outside the State	MU	24,464	24340	26,119	26,119	22,500
Total Power Purchase payable	**MU**	**80,446**	**79,745**	**87,223**	**86,551**	**84,641**
Energy at Transmission Periphery	MU	79,200	78,358	85,833	85,160	80552

Particulars	Units	FY 2008-09		FY 2009-10		
		MSEDCL	Provisional	MSEDCL APR Petition	MSEDCL Supplementary Petition	Approved
Intra- State Losses	**%**	**4.85%**	**4.85%**	**4.85%**	**4.85%**	**4.85%**
Energy at Distribution Periphery	MU	75359	74558	81670	81030	76645
Distribution losses	**%**	**22.20%**	**22.48%**	**21.20%**	**18.20%**	**18.20%**
Energy available for Sales	**MU**	**58625**	**57,796**	**64353**	**66283**	**62696**

4.5 Energy Availability and Power Purchase cost for FY 2008-09 and FY 2009-10

4.5.1 Total Power Purchase Quantum & Cost for FY 2008-09

MSEDCL, in its APR Petition, projected power purchase expenses from MSPGCL based on actual generation, monthly Fixed Charges and Variable Charges for the period from April 2008 to December 2008. MSEDCL submitted that for the purposes of projection, it has extrapolated energy availability and power purchase expenses for the remaining three months, i.e., from January 2009 to March 2009, on pro-rata basis.

As regards purchase of power from the Central Generating Stations (CGS), MSEDCL submitted that it has a firm share allocation for drawal of power from some of the National Thermal Power Corporation (NTPC) stations. In addition to the firm share allocation, most of these stations have 15% unallocated power. The distribution of this unallocated power among the constituents of Western Region is decided from time to time based on power requirement and power shortage in different States and MSEDCL also gets a substantial portion of the unallocated share.

MSEDCL submitted that the difference between the power purchase expense approved by the Commission and revised estimate is mainly attributable to purchase from RGPPL and MSPGCL. Actual energy availability from RGPPL and MSPGCL is around 12% lower than energy availability approved by the Commission for FY 2008-09. MSEDCL submitted that to meet this shortfall, it has procured power from costlier sources like Traders, Indian Energy Exchange, etc.

For FY 2008-09, the Commission obtained the details of the source-wise actual power purchase quantum and cost for FY 2008-09 and has accordingly considered the same. However, the Commission observes that MSEDCL has considered power purchase cost of Rs. 815 Crore purchased for the Interim Franchisees though it has not considered the quantum of power purchased for the Interim Franchisees. As regards the purchase of power under the Interim Franchisee arrangement, there is a separate mechanism to recover the power purchase expense from the consumers of such Franchisee area through levy of Reliability Charges, and accordingly, the Commission has not considered the quantum and power purchase cost towards such purchases.

In this regard, the Commission asked a specific query from MSEDCL regarding the treatment of expenses and revenue of the Interim Franchisee model. The Commission's query and MSEDCL's reply are reproduced below for reference:

1. *"While submitting the details of expenses and revenue for final truing up for FY 2006-07 (in the previous APR Petition), FY 2007-08 and provisional truing up for FY 2008-09, MSEDCL has considered all the power purchase expenses and revenue from sale of power, including the expenses incurred for power purchase for CII-Pune Model (in FY 2006-07 and FY 2007-08), and Zero Load Shedding Schemes in Pune, Thane, Navi Mumbai, and Baramati areas, as well as the revenue earned from Reliability Charges from these areas. However, the Commission has specifically directed that the truing up of expenses and revenue for such zero load shedding schemes should be undertaken separately, and should not be passed to other consumers. Hence,* ***for FY 2006-07, FY 2007-08 and FY 2008-09, MSEDCL should segregate the expenses incurred for power purchase for CII-Pune Model (in FY 2006-07 and FY 2007-08), and Zero Load Shedding Schemes in Pune, Thane, Navi Mumbai, and Baramati areas, as well as the revenue earned from Reliability Charges from each area, and exclude the same from the overall ARR and revenue****.*

   <u>MSEDCL's reply</u>

   <u>For FY 2006-07 and FY 2007-08</u>

   MSEDCL would like to inform to Hon'ble Commission that the CII- Pune Model was a self sustaining. Hence MSEDCL was not involved in any purchase of power for maintaining Zero Load Shedding. The whole scheme was operating on *revenue – neutral method. Summary for Zero Load Shedding CII-Pune model for May 2006 to March 2008 is given below.*

Additional Revenue Collected: Rs. 205.50 Crores
Reliability Charges Collected : Rs. 269.71 Crores
Total Revenue Collected : Rs. 475.20 Crores
Reimbursement given to CPP : Rs. 68.60 Crores
Cost of Power from Grid : Rs. 419.62 Crores
Surplus(+)/Deficit(-) with MSEDCL : Rs. -13.02 Crores

This difference amount of Rs.13.02 Crores is yet to be recovered from Pune consumers. The reconciliation of accounts for additional recovery of cost for the period May 06 to March 08 had been submitted to Hon'ble commission vide letter No. ED-II/COMM/Pune ZLS/36998 dated 3rd October 2008. The copy of the same is attached herewith as Annexure AA Query No. 30.

For FY 2008-09

MSEDCL informs the Hon'ble Commission that the break-up of trading power purchase cost for the year 2008-09 is as under,

Particulars	***Estimated (Form 2)***		***Actual (Provisional)***	
	Energy (MU)	***Amt (Rs. Crore)***	***Energy (MU)***	***Amt (Rs. Crore)***
For MSEDCL Pool	*1459*		*1256.95*	*848.60*
For Interim Franchisee for ZLS in Thane, Vashi & Pune area	*1016*		*976.81*	*814.22*
Total	***2475***	***1920***	***2233.76***	***1662.82***

MSEDCL informs the Hon'ble Commission that it has not included any revenue from Reliability charges in estimation of revenue at existing tariff as given in form 13.1 of APR Formats for FY 2008-09.” (emphasis added)

From the above reply, it appears that though the cost of power purchase on account of the Interim Franchisee model has been included in the power purchase expense, the revenue from Reliability Charges has not been considered. However, the Commission has obtained the details of actual power purchase expenses and revenue from sale of electricity for FY 2008-09. From perusal of this data, it appears that the revenue from Reliability Charges **has been** considered, while providing the total revenue. However, since MSEDCL has not segregated the revenue on account of Reliability Charges levied under the Interim Franchisee model at different places, the exact revenue from Reliability Charges cannot be reduced from the total revenue. Hence, for the purpose of provisional truing up for FY 2008-09, the Commission has considered the revenue from Reliability Charges as equivalent to the power purchase expense under this head (Rs. 815 crore), and reduced the same, while considering the total revenue, since the power purchase expense has also been reduced.

As regards the power purchase from RGPPL during FY 2008-09, based on the facts and circumstances discussed in the truing up section on the power purchase expenses for FY 2007-08, the Commission has considered the reduced fixed charges for FY 2008-09 on pro-rata basis considering the actual availability and target availability for recovery of full fixed charges approved by CERC for FY 2008-09 as shown in the Table below:

Sl.	Particulars	Unit	FY 2008-09
1	AFC Approved by CERC	Rs. Crore	851.52
2	Actual Availability	%	34.26%
3	Normative Availability Approved by CERC	%	80.00%
4	AFC Allowed to be recovered	Rs. Crore	364.66
5	MSEDCL Claim in APR Petition (Capacity Charge)	Rs. Crore	453.61
6	Actual Capacity Charge Paid during FY 2008-09	Rs. Crore	435.77
7	Capacity Allocation	%	95.00%
8	AFC considered as per CERC Order	Rs. Crore	346.43

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As regards the variable charges paid to RGPPL during FY 2008-09 the Commission has considered the actual variable cost (including FPA) paid during FY 2008-09, i.e., Rs. 1197.81 Crore, however, as discussed in the truing up section on the power purchase expenses for FY 2007-08**, the Commission directs MSEDCL to follow-up with RGPPL for required adjustments in the variable cost for FY 2008-09, and submit the details of the adjustment amount within three months of the date of this Order as well as in the APR Petition for FY 2009-10, which will be considered during the APR exercise for FY 2009-10.**

The summary of the power purchase quantum and expense as petitioned by MSEDCL and as considered by the Commission after provisional truing up for FY 2008-09 is shown in the Table below:

Table: Summary of Power Purchase for FY 2008-09

Station	Petition		Approved after Provisional Truing up	
	Quantum	Total Cost	Quantum	Total Cost
	MU	Rs crore	MU	Rs crore
MAHAGENCO	**46667**	**9047**	**46257**	**8983**
KSTPS	5160	654	5168	590
VSTP I	3279	637	3277	613
VSTP II	2697	504	2677	478
VSTP III	2337	495	2304	489
KAWAS	1273	776	1352	997
GANDHAR	1478	620	1494	800
FSTPP-EP	305	80	307	77
KhSTPS-I	140	34	137	33
KhSTPS-II	243	51	272	72
TSTPS	191	36	194	33
SIPAT TPS	1153	181	1167	205
URS SALE TO TATA	-87	-118	-87	-118
NTPC	**18169**	**3949**	**18263**	**4270**
KAPP	392	89	342	74
TAPP 1&2	1009	107	1042	104
TAPP 3&4	1270	385	1288	385
NPCIL	**2671**	**581**	**2672**	**564**
SSP	574	123	585	126
PENCH	66	14	56	12
U.I. CHARGES	703	236	778	193
DODSON I	35	8	31	7
DODSON II	55	16	51	15
RGPPL	5174	1363	5073	1546

Station	Petition		Approved after Provisional Truing up	
	Quantum	Total Cost	Quantum	Total Cost
	MU	Rs crore	MU	Rs crore
TRADING Company	2277	1920	1136	833
POWERGRID	0	362	0	341
SLDC	0	12	0	0
Reactive Energy Ch	0	-3	0	0
WRPC	0	0	0	-2
BANKING	-111	3	-111	4
IBSM	-283	-303	-173	-188
TOTAL PP	**75996**	**17328**	**74636**	**16718**
Non Conv. Energy	2994	1080	2678	956
CPP	210	81	253	101
Sub-Total	**3204**	**1160**	**2931**	**1057**
Total	**79200**	**18488**	**77567**	**17774**

4.5.2 Power Purchase Quantum and Cost for FY 2009-10

Total Power Purchase Quantum

Based on the projected sales and approved loss levels as discussed above, the total projected power purchase quantum for FY 2009-10 works out to 83521 MU excluding external transmission losses, and 84641 MU including external transmission losses. The summary of projected power purchase for FY 2009-10 is given in the following Table:

Table: Total Power Purchase Quantum Required for FY 2009-10

Sl.	Description	Unit	Value
1	Sales for FY 2009-10 as considered by the Commission	MU	62696
2	Energy Input at MSEDCL boundary considering Distribution Losses	MU	76645
3	Energy Input at State boundary considering Intra-State Transmission Losses	MU	80552
4	Power Available within the State	MU	61,031

Sl.	Description	Unit	Value
5	Power Required from Outside the State including external transmission losses	MU	23610
6	**Total Quantum of Power Purchase Required (4+6)**	**MU**	84641

Sources of Power Purchase

MSEDCL has three primary sources of firm power, viz.,

- Maharashtra State Power Generation Company Limited (MSPGCL)
- Purchase from Central Generating Stations (CGS)
- Ratnagiri Gas and Power Private Limited (RGPPL)

In addition to the above sources, MSEDCL buys power from Trading Companies, Indian Energy Exchange and Power Exchange, renewable energy sources including co-generation, wind power, and surplus power from captive plants.

The source-wise analysis for approving the power purchase quantum and cost for FY 2009-10 is detailed in the following paragraphs.

Power Purchase from MSPGCL

For FY 2009-10, MSEDCL has estimated purchase of 48091 MU from MSPGCL at a total cost of Rs. 9056 Crore. The Commission asked MSEDCL to modify its Petition considering the power purchase quantum from MSPGCL in accordance with the projections made by MSPGCL in its APR Petition for FY 2008-09. MSEDCL, in its Supplementary Submission considered the estimated purchase of 47419 MU from MSPGCL at a total cost of Rs 10859 Crore considering average rate of Rs 2.29/kWh as per MSPGCL's revised APR Petition.

MSEDCL submitted that it has considered average power purchase cost from MSPGCL as Rs 1.88/kWh based on estimated average power purchase cost for FY 2008-09, while quantum has been estimated on the basis of previous trend and experience.

MSEDCL requested the Commission to consider the power purchase expense for FY 2009-10 as may be approved by the Commission for MSPGCL while reviewing MSPGCL's APR Petition for FY 2008-09.

The Commission has analysed the actual generation from existing thermal generating stations of MSPGCL for the last three years. The summary of the net generation for the period from FY 2005-06 to FY 2007-08 is shown in the Table below:

Table: Summary of Approved Net Generation in MYT Order and Actual Generation during last three years (MU)

	Net Generation				
Station	**FY 2005-06**	**FY 2006-07**	**FY 2007-08**	**Average of 3 years actual generation**	**Net Generation approved for FY 2009-10 for MSPGCL**
Khaperkheda	5157.74	5989.50	5734.04	5627.09	5439.54
Paras	433.63	381.53	305.28	373.48	348.05
Bhusawal	3067.11	2884.90	2861.93	2937.98	3004.24
Nasik	5231.54	5935.78	5722.58	5629.97	5612.01
Parli	4687.02	4142.21	3847.41	4225.55	4272.78
Koradi	5837.11	6122.62	5705.47	5888.40	6574.06
Chandrapur	12897.74	12094.11	14688.58	13226.81	15119.62
Uran	3691.54	3941.86	3648.92	3760.78	5745.20
Total	**41003.44**	**41492.52**	**42514.21**	**41670.06**	**46115.50**

As observed from the above Table, the actual generation in the previous years has been much lower than the generation at target PLF approved by the Commission. Accordingly, the Commission has estimated the power purchase quantum from MSPGCL based on the average generation over the last three years. It is clarified that though the Commission, while estimating the power purchase quantum for MSEDCL has considered MSPGCL's net generation based on average of three years actual generation, it does not imply that the Commission has reduced the target Availability/PLF for MSPGCL Generating stations. The target Availability/PLF for FY 2009-10 for MSPGCL thermal generating stations for recovery of full fixed charges shall be as approved by the Commission in its Order dated August 18, 2009 in Case No. 115 of 2008 on MSPGCL's APR Petition for FY 2008-09.

As regards the purchase from hydel generating stations operated by MSPGCL, the Commission has considered the approved net energy of 3934 MU for FY 2009-10 as approved in the APR Order for MSPGCL in Case No. 115 of 2008.

As regards the purchase from the recently commissioned Parli Unit No. 6 and Paras Unit No. 3, the Commission has considered the normative Plant Load Factor of 80% and normative auxiliary consumption for estimating the net energy for FY 2009-10. For estimating the power purchase cost from these Units, the Commission has considered the provisional fixed and energy charges as approved by the Commission. The Commission further clarifies that any change in the fixed cost on account of the final tariff approved for these Units for which MSPGCL has filed Petitions in separate cases, would be considered for truing up during the APR process for third year of the first Control Period i.e., FY 2009-10.

The Commission has considered the power purchase expenses based on the energy charges as approved by the Commission in its Order in Case No. 115 of 2008 and considered the fixed charges for 8 months as approved in Case No. 115 of 2008 on MSPGCL's APR Petition for FY 2008-09 and for 4 months as approved in Case No. 71 of 2007 on MSPGCL's APR Petition for FY 2007-08.

Further, MSEDCL also submitted that it has considered purchase of 300 MU from Ghatghar and 600 MU from the Parli II (250 MW) and Paras Extension II (250 MW), which would be operative in FY 2009-10 and would add to MSPGCL capacity. The Commission, considering the current status of Parli Unit No. 7 (250 MW) and Paras Unit No. 4 (250 MW), has not considered any energy availability from these Units in FY 2009-10, however, the Commission has considered 300 MU as projected by MSEDCL from Ghatghar. Since the station is a pumped storage station, the Commission has considered the entire generation during peak hours and has accordingly considered a rate of Rs 2 per kWh, which is the peak hour rate approved by the Commisison.

The summary of approved power purchase from MSPGCL for FY 2009-10 is given in the Table below:

Table: Summary of Approved Power Purchase from MSPGCL for FY 2009-10

S.No	Stations	Quantum (MU)	Fixed Charges (Rs Crore)	Energy Charges (Rs Crore)	Total Cost Rs Crore)
1	Existing Thermal Stations	41,670.06	2,056.08	6,957.19	9,013.26
2	New Paras -1 and New Parli	3,188.64		438.43	729.50

S.No	Stations	Quantum (MU)	Fixed Charges (Rs Crore)	Energy Charges (Rs Crore)	Total Cost Rs Crore)
	1 Expn. Projects		291.07		
3	Existing Hydel Stations including rebate	3,934.00		278.10	278.10
4	Ghatghar	300.00		60.00	60.00
5	New Paras Unit No. 4 and New Parli Unit No. 7. Projects expected to be commissioned in FY 2009-10	-	-	-	-
	Total	**49,092.70**	**2,347.13**	**7,733.72**	**10,080.86**

Power Purchase from Central Generating Stations (CGS)

MSEDCL has a firm share allocation for drawal of power from generating stations of National Thermal Power Corporation (NTPC) and three Nuclear Power Corporation (NPC) Stations. In addition to the firm share allocation, most of these stations have 15% unallocated power. The distribution of this unallocated power among the constituents of Western Region is decided from time to time based on power requirement and power shortage in different States. In addition to share from these Central Generating Stations, MSEDCL also buys power from the Eastern Region Stations of NTPC, namely, Kahalgaon Thermal Power Station, Farakka Super Thermal Power Station and Talcher Super Thermal Power Station.

MSEDCL, in its Petition, while projecting the energy available from CGS, considered the firm share in Central Generating Stations and its share in unallocated quota prevalent during earlier periods. Further, MSEDCL has considered the new CGS at Barh, while projecting the power purchase quantum and costs for FY 2009-10.

MSEDCL has projected the quantum of power available from CGS by applying its effective share on projected Energy Sent Out from each Station. Further, MSEDCL has applied the external transmission losses and intra-State Transmission Losses to arrive at net energy available to MSEDCL.

MSEDCL has estimated the fixed charges for CGS on the basis of CERC's Orders for FY 2008-09 and variable cost based on the estimated variable charges for FY 2008-09, including Fuel Price Adjustment (FPA). MSEDCL further submitted that CERC has circulated draft Regulations on Terms and Conditions of tariff for the period from FY 2009 to FY 2014, to be applicable from April 1, 2009 and Central Generating Stations like NTPC would be required to file the Tariff Petition for the MYT period starting from April 1, 2009 based on the notified Tariff Regulations. MSEDCL submitted that since MYT filing by NTPC stations is due and estimation of approved rate by CERC is difficult, it has considered average power purchase cost from NTPC stations based on estimated cost incurred by MSEDCL for FY 2008-09. MSEDCL further requested the Commission to allow any change in tariff of CGS as a pass through in the form of FAC.

For projecting the energy availability from existing CGS Stations, the Commission has considered the annual generation target for CGS as specified by the Central Electricity Authority (CEA) for FY 2009-10. The energy sent out from these stations has been estimated by considering the actual auxiliary consumption achieved by these stations in the previous year.

For Western Region Stations, the Commission has considered the share from unallocated quota based on latest allocation as on June 25, 2009 as specified in Western Region Power Committee notice no. WRPC/Comml-I/6/Alloc/2009/742 June 25, 2009. For Eastern Region Stations, the Commission has considered the percentage allocation of the CGS as per MSEDCL's projections. For estimating the energy availability from new the generating station at Barh, the Commission has considered MSEDCL's projections.

The Commission has considered the fixed cost of existing NTPC Stations based on the latest CERC Orders for each Station for FY 2008-09. The Commission observes that while CERC has notified the CERC (Terms and Conditions of Tariff) Regulations, 2009 on January 19, 2009, CERC is yet to determine the tariff for Central Generating Stations till date. The Commission is of the view that it is difficult to accurately estimate the increase in fixed charges and energy charges. Hence, for projection of power purchase cost for FY 2009-10, for all the existing stations, the Commission has considered an escalation of 5% on the approved fixed charges for FY 2008-09 and 3% on the actual energy charges (including FPA) for FY 2008-09.

As regards MSEDCL's request that any variation in the tariff based on the CERC (Terms and Conditions of Tariff) Regulations, 2009 should be allowed as a pass through under the FAC mechanism, the Commission is of the view that any variation in the power purchase cost on account of change in the fixed cost would have to be adjusted at the time of truing up for FY 2009-10 and any change in the variable cost of power purchase from Central Generating Stations should be considered as a part of the FAC.

The Commission has also considered incentives for Korba STPS, Vindhyachal 1 STPS, Vindhyachal 2 STPS, Vindhyachal 3 STPS, and Stations of Eastern Sector for the projected generation above 80% PLF, in accordance with the CERC norms specified in the earlier CERC (Terms and Conditions of Tariff) Regulations, 2004. The total incentive amount payable by MSEDCL to Central Generating Stations for FY 2009-10 is estimated at Rs. 33.85 Crore. Though the incentive methodology has been modified in the CERC (Terms and Conditions of Tariff) Regulations, 2009, the exact impact is not known at this stage and hence, the incentive has been considered as per the earlier methodology. The Commission has also considered the Income Tax payable by MSEDCL to Central Generating Stations for FY 2009-10 as Rs 200 Crore as projected by MSEDCL. Though in CERC (Terms and Conditions of Tariff) Regulations, 2009, CERC has changed the RoE mechanism from post-tax to pre-tax, however, the impact of the same cannot be assessed in absence of CERC Tariff Order based on new Regulations, hence, the income tax has been considered separately.

The summary of total quantum of Power Purchase (Energy Sent Out basis) and total power purchase cost from each CGS as estimated by MSEDCL in its Petition and as considered by the Commission for FY 2009-10, is given in the following Table:

Table: Summary of Power Purchase from CGS for FY 2009-10

Station	Petition		Approved	
	Quantum	Total Cost	Quantum	Total Cost
	MU	Rs crore	MU	Rs crore
KSTPS	5184	538	5014	482
VSTP I	3480	570	3361	535
VSTP II	2961	451	2625	468
VSTP III	2631	507	2187	429
KAWAS	1408	983	1393	931
GANDHAR	1545	724	1366	680
FSTPP-EP	364	70	499	103
KhSTPS-I	180	33	242	46
KhSTPS-II	300	44	300	56
TSTPS	225	30	300	42

Station	Petition		Approved	
	Quantum MU	Total Cost Rs crore	Quantum MU	Total Cost Rs crore
SIPAT TPS	1920	264	2235	293
BRAH (33 MW)	110	22	110	22
NTPC	**20307**	**4237**	**19634**	**4087**
KAPP	514	106	310	66
TAPP 1&2	1215	114	1080	104
TAPP 3&4	1468	415	1559	455
NPCIL	**3197**	**635**	**2949**	**625**
Income Tax				200
Total	**23504**	**4872**	**22582**	**4712**

Power Purchase from Sardar Sarovar Project (SSP)

MSEDCL has projected power purchase of 882 MU from Sardar Sarovar Project in FY 2009-10 at a total cost of Rs. 181 Crore, by considering the power purchase rate as Rs. 2.05/kWh.

For projecting the energy availability from SSP, the Commission has considered the annual generation target as specified by the CEA for FY 2009-10. The energy sent out from this station has been estimated by considering the capacity allocation as submitted by MSEDCL. The Commission, however, is of the view that the tariff for Sardar Sarovar Project needs to be determined by CERC. In the absence of CERC's approval, the Commission has considered the energy tariff of Rs 2.05 per unit as currently being paid by MSEDCL. This rate shall prevail until such time CERC approves the tariff for Sardar Sarovar Project, and the Commission shall true-up for any variations in the subsequent years. Thus, the estimated power purchase cost for purchase of 924 MU from SSP works out to Rs 189 Crore.

Power Purchase from Pench, Dodson, Wind and Co- Generation Projects

MSEDCL, in its Petition, submitted that it has entered into Power Purchase Agreements with all the generators of renewable sources who are approaching MSEDCL, to meet its RPS obligation. MSEDCL submitted that it has considered the estimates of generation made available by RE Sources for FY 2009-10 as per the respective source of generation.

MSEDCL has projected power purchase of 4110 MU from RE energy sources for FY 2009-10, at an average rate of Rs 3.67/kWh, which has been considered by the Commission for projecting the power purchase cost from RE sources for FY 2009-10, at Rs 1509 Crore.

MSEDCL, in its Petition, has projected power purchase of 152 MU from Dodson Project (Dodson-I & II) for FY 2009-10. MSEDCL has considered the average tariff of Rs 2.16/kWh for Stage-I and tariff of Rs 2.92/kWh for Stage-II. The Commission has considered the quantum of 40 MU from Dodson Project-I as proposed by MSEDCL for FY 2009-10, however for Dodson-II, the Commission has considered purchase of 38 MU for FY 2009-10 as approved by the Commission in its Order in Case No. 27 of 2008. For Dodson Stage I, the Commission has considered the power purchase rate as projected by MSEDCL, however for Dodson-II, the Commission has considered the fixed cost for FY 2009-10 as approved by the Commission in its Order in Case No. 27 of 2008. The cost for purchase of 78 MU from Dodson Project works out to Rs 19 Crore.

MSEDCL has projected power purchase of 123 MU from Pench hydel station for FY 2009-10, and considered the average tariff as Rs 2.05/kWh. The Commission has considered the CEA target for generation for FY 2009-10 and the average tariff as Rs. 2.05/kWh as projected by MSEDCL, and accordingly, the expense on purchase of 103 MU from Pench Project works out to Rs 21 Crore.

Power Purchase from Ratnagiri Gas & Power Private Limited (RGPPL)

As regards the projections of energy availability from RGPPL for FY 2009-10, in its Petition, MSEDCL had projected purchase of 10500 MU before the first TVS. The Commission asked the basis and assumptions for projecting the power availability and cost of power purchase from RGPPL for FY 2009-10. MSEDCL, in its reply, submitted that it has anticipated that RGPPL would make available a minimum of 1250 MW out of the total capacity of 2150 MW and projected the power availability of 900 MU per month for the period excluding rainy season in FY 2009-10.

Subsequently, the Commission asked MSEDCL to project the energy availability for FY 2009-10 based on the factual position and updated information on availability of all the blocks of RGPPL. MSEDCL, in its reply, considered reduced energy availability of 7500

MU and estimated the power purchase expenses of Rs. 2873 Crore at an average rate of Rs. 3.83/kWh based on the latest power purchase bills.
MSEDCL also submitted that negotiations between Ministry of Power (MoP), Government of Maharashtra and various stakeholders of RGPPL is in progress for financial restricting of RGPPL to make the project financially viable. MSEDCL submitted that financial restructuring is likely to result in a tariff higher than tariff indicated in the APR Petition, and stated that it would seek the Commission's approval for recovery of any such additional cost, which might arise out of the financial restructuring exercise, as when it is finalised.

For projecting the energy availability from RGPPL, the Commission has considered the energy availability of 7500 MU for FY 2009-10 as projected by MSEDCL. For projecting the power purchase cost from RGPPL, the Commission has considered the variable charge of Rs 2.43/kWh considering the actual purchase rate for FY 2008-09 and an escalation of 3% and capacity charge of Rs 849 Crore based on the fixed cost approved by CERC for FY 2008-09 with an escalation of 5%. Accordingly, the Commission has considered the expense on purchase of 7500 MU from RGPPL at Rs 2718 Crore for FY 2009-10.

Power Purchase from Traders and Drawal from IBSM

MSEDCL, in its Petition, submitted that it has estimated power purchase of 3000 MU from traders at an estimated expense of Rs 2700 Crore for FY 2009-10. MSEDCL submitted that in case of any shortfall in energy available from the above-mentioned sources, then MSEDCL would source power from Traders or any other source available at market price prevailing at that point of time. Accordingly, MSEDCL requested the Commission to allow procurement of available power from the market to mitigate any shortfall pertaining to existing sources.

As regards the incremental/under-drawal from IBSM for FY 2009-10, the Commission asked MSEDCL to submit the basis for projecting incrementing/under-drawal of 389 MU giving revenue of Rs. 374 Crore from IBSM in FY 2009-10. MSEDCL submitted that it is very difficult to predict the quantum and the marginal price at which the energy increment or decrement is billed in IBSM. However, while estimating IBSM quantum for FY 2009-10, the past trend of actual of April 2008 to August 2008 has been considered and for balance period (September 2008 to March 2009) projection of 41 MU per month has been considered by MSEDCL. Accordingly, MSEDCL estimated 389 MU for FY 2009-10. MSEDCL considered the actual cost for FY 2007-08 for estimating the projected revenue for FY 2009-10.

Considering the total energy input requirement of MSEDCL for FY 2009-10 and projected energy availability from various sources, in this Order, the Commission has not considered any power purchase from traders during FY 2009-10. However, in case of increase in energy requirement and/or shortfall in energy availability from other sources, MSEDCL should consider purchase of power from traders to meet the energy requirement. If required, MSEDCL may approach the Commission separately for prior approval for purchase of power from traders in accordance with Regulation 25 of MERC (Terms and Conditions of Tariff) Regulations, 2005.

The power purchase quantum projected by the Commission in this Order is not a ceiling quantum, but an estimated quantum based on the present sales projection, and the allowed level of distribution losses. Obviously, if the actual sales increase beyond the levels considered in this Order, then the power purchase quantum would also increase correspondingly. Further, the MERC Tariff Regulations also provide for short-term power purchase and the procedure to be observed by the distribution licensee in the event of unforeseen wide variation in the sales forecast. However, any additional power purchase on account of its failure to reduce distribution losses will be to MSEDCL's account, and the treatment of the same will be governed by the provisions of the MERC Tariff Regulations. MSEDCL should not increase the hours of load shedding for any category/region, citing the power purchase quantum approved in the Commission's Order as a ceiling figure.

The Commission has not considered any incremental/under-drawal from IBSM for FY 2009-10, as it is very difficult to predict the same. However, the actual incremental/under-drawal from IBSM for FY 2009-10 and the corresponding cost impact will be considered by the Commission while truing up the ARR for FY 2009-10.

External Transmission Charges Payable to PGCIL

MSEDCL has estimated the transmission charges payable to PGCIL at Rs. 367 Crore for FY 2009-10. The Commission has considered the actual transmission charges paid by MSEDCL for FY 2008-09 and considered an escalation of 5% considering the likely impact of the recently notified CERC Tariff Regulations, 2009. The Commission has also considered the charges payable to Western Regional Power Committee as Rs 0.72 Crore as projected by MSEDCL for FY 2009-10. The Commission has also considered the charges receivable by MSEDCL for injection of reactive energy as Rs. 4.91 Crore as projected by MSEDCL for FY 2009-10.

Intra-State Transmission Charges

MSEDCL projected Transmission Charges of Rs. 1786 crore for FY 2009-10, as approved by the Commission for FY 2008-09. MSEDCL requested the Commission to consider the transmission tariff payable to transmission licensees as approved by the Commission in the APR for FY 2008-09, for determination of MSEDCL's revenue requirement for FY 2009-10. In the overall ARR summary, MSEDCL considered the additional impact on account of the APR Petition filed by MSETCL for FY 2008-09, by considering MSEDCL's share of MSETCL ARR as 82%, as Rs. 691 crore.

For FY 2009-10, the Commission vide its Order dated May 28, 2009 in Case No. 155 of 2008, in the matter of determination of Transmission Tariff for the Intra-State Transmission System, has approved the revised Transmission Charges for FY 2009-10 with effect from June 1, 2009. Accordingly, the Commission has considered the monthly transmission charges payable by MSEDCL for FY 2009-10, as approved in the above-said Order for 10 months, and has considered the monthly transmission charges for 2 months as approved in the Order in Case No. 104 of 2007. Accordingly, the total transmission charges payable by MSEDCL for FY 2009-10 as approved by the Commission works out to Rs. 1485 crore.

SLDC Charges

As regards the MSLDC charges for FY 2009-10, the Commission in its Order dated April 29, 2009 in the matter of Approval of MSLDC Budget for FY 2009-10 (Case No. 117 of 2008) has determined the mechanism for the recovery of MSLDC Fees and Charges for FY 2009-10. The Commission has considered MSEDCL's share of the approved MSLDC Fee for FY 2009-10 based on the above-said Order, which works out to Rs. 8.36 crore.

The total approved power purchase expenses for FY 2009-10, excluding transmission charges and SLDC Fees and Chares are as tabulated below:

Source	MSEDCL	Approved

	Power Purchase Quantum	Power Purchase Cost	Power Purchase Quantum	Power Purchase Cost
	MU	Rs. Crore	MU	Rs. Crore
MSPGCL	48,090.68	9,056.49	49,092.70	10,080.86
CGS	23,503.66	4,871.74	22,582.48	4,911.77
Sardar Sarovar	882.12	180.83	924.32	189.49
RGPPL	7,500.00	2,872.74	7,500.00	2,717.95
Other Sources (Pench, Wind, Dodson, Cogen, etc.)	4,635.23	1,671.06	4,541.53	1,644.46
IBSM	(388.86)	(373.90)	-	-
Traders	3,000.00	2,700.00	-	-
Transmission Charges of PGCIL, WRPC & Reactive energy charge	-	362.58	-	353.64
Total	**87,222.83**	**21,341.53**	**84,641.03**	**19,898.16**

Pass through of variation in fuel cost of power purchase

The existing FAC has been equated to zero, on account of the adoption of the recent variable costs of power purchase for projection of the power purchase expenses. In case of any variation in the fuel cost (variable charge) of power purchase, MSEDCL will be able to pass on the corresponding increase to the consumers through the existing FAC mechanism, subject to the stipulated ceiling of 10% of average energy charges. The FAC will be charged on a monthly basis.

Vetting of FAC levied on consumers

The levy of Fuel Adjustment Cost (FAC) charge for different consumers and the under-recovery/over-recovery of the corresponding costs will be vetted by the Commission bi-monthly on a post-facto basis, based on submissions made by MSEDCL. However, for the first month after the issue of the Order, MSEDCL should obtain the Commission's prior approval for levy of FAC, to ensure that the FAC is being levied correctly. Thereafter, MSEDCL should submit the FAC computations and details of under-recovery/over-recovery of fuel cost variations on a bi-monthly basis, as applicable.

4.5.3 Month-wise Power Purchase Quantum for FY 2009-10

The summary of month wise power purchase quantum approved by the Commission based on trends of month-wise energy input requirement in FY 2007-08 is given in the Table below:

Table: Month-wise Power Purchase Quantum (MU) for FY 2009-10

Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
MU	6354	6326	8160	6306	6442	7927	6536	6519	8356	6696	6533	8488	84641

4.5.4 Demand Side Management (DSM) Mechanism

The Commission directs MSEDCL to adopt Demand Side Management Measures (DSM) and reduce the demand for power in its licence area. The cost of such DSM projects shall be allowed by the Commission as a part of the Annual Revenue Requirement of MSEDCL, which would be more than offset by the savings in power purchase cost due to reduction in demand. However, this should not be interpreted to mean that load shedding should be increased, which in any case, is a load management solution and not a DSM measure, undertaken to reduce the demand at the consumer end, through incorporation of appropriate energy efficiency and energy conservation measures.

4.6 O&M Expenses for FY 2008-09 and FY 2009-10

The O&M expenditure consists of employee expenditure, A&G expenditure and R&M expenditure, as discussed below.

Relevance of Multi-Year Tariff

In this context, the Commission observes that during the public regulatory process on the APR Petitions, several consumers have expressed their opinion that revising tariff on an annual basis is against the principles of MYT. While this is not incorrect if one goes by the pure concept of MYT, in Maharashtra, parameters like sales and power purchase have not been stipulated in the MYT Orders, due to the uncertainty on account of the prevailing supply shortages in the State and the respective licence area. Consequently, the tariff has been specified for only one year, rather than the Control Period, which is also in accordance with the MERC Tariff Regulations, which specifies that tariff will be determined annually.

Consequently, in the MYT Orders, the Commission has primarily stipulated the following parameters separately for each year of the Control Period, viz.,

(a) Performance trajectory

i. Station Heat Rate (SHR), auxiliary consumption, transit losses and secondary oil consumption for Generating Companies;

ii. Availability for Transmission Licensees; and

iii. Distribution loss for Distribution Licensees

(b) Cost elements

i. Operation & Maintenance (O&M) expenses have been approved as a whole for Generating Companies, and for individual elements, viz., employee expenses, A&G expenses, and R&M expenses, for Transmission Licensees and Distribution Licensees

ii. Interest on Working capital

However, even though the O&M expenses have been approved by the Commission for each year of the Control Period, wherein, by and large, the Utility's projections have been accepted, most Utilities have projected significant further annual increase in the O&M expenses for each year in the Control Period. If this increase in O&M expenses is allowed as sought by the Utilities, then the MYT framework created by the MERC in its MYT Orders will have no sanctity. Hence, the Commission rules that for FY 2008-09 and FY 2009-10, the O&M expenses allowed by the Commission for FY 2007-08 under the final truing up for FY 2007-08, after considering the base as audited expenses for FY 2006-07, will be considered as the base and increase will be allowed strictly as per the CPI/WPI growth as applicable, which incidentally, is higher than the growth rate projected by the Utilities in their respective original Petitions. The variation between allowed expenses and actual expenses will be considered as a controllable gain/loss, and will be shared between the Utilities and the respective consumers, in accordance with Regulation 19 of the MERC (Terms and Conditions of Tariff) Regulations, 2005.

In the APR Petition for FY 2008-09, MSEDCL submitted that it has revised the O&M expenses for FY 2008-09 and FY 2009-10, based on actual O&M expenses during the period from April 2008 to September 2008, and in accordance with the Judgment of the Appellate Tribunal for Electricity in the context of O&M expenses for Maharashtra State Electricity Transmission Company Limited (MSETCL). The ATE Judgment in essence states that the ARR for the Control Period for O&M expenses should be done by extrapolating the actual audited expenses for the FY 2006-07 subject to prudence check, till norms are finalised.

4.6.1 Employee Expenses

MSEDCL submitted that for FY 2008-09 and FY 2009-10, MSEDCL has projected revised employee expenses of Rs 2400 Crore and Rs 2602 Crore, respectively, as compared to the approved expenses of Rs 1874 Crore and Rs 1745 Crore for FY 2008-09 and FY 2009-10, respectively, in the APR and MYT Orders, respectively.

MSEDCL submitted that the net employee expenditure for FY 2008-09 has been estimated at Rs. 2400 Crore after adjusting for capitalization of Rs 115 Crore, which amounts to an increase of around 28.07% over the approved expense of Rs 1874 Crore for FY 2008-09. For FY 2009-10, the employee expenses have been projected to increase by 8% over the revised estimates of FY 2008-09. For FY 2008-09 and FY 2009-10, MSEDCL has considered the amortisation of leave encashment equivalent to Rs. 88 crore annually, as approved by the Commission in the APR Order. MSEDCL submitted that the capitalisation of employee expenses has been considered at the same rate of 5.86% for FY 2008-09 and FY 2009-10, as considered for FY 2007-08.

MSEDCL submitted the following reasons for the projected increase in employee expenses for FY 2008-09 and FY 2009-10 as compared to the expenses approved by the Commission:

- Provisioning for revision of pay scale of MSEDCL employees, due from April 1, 2008, to the extent of Rs.364 crore and Rs. 422 crore for FY 2008-09 and FY 2009-10, respectively, by considering pay scale revision equivalent to 20% of actual Gross Employee Expense of FY 2007-08.
- Average age of line staff of MSEDCL is over 50 years, which has increased the risk of accidents and delay in attending to faults and breakdowns. Therefore, MSEDCL has initiated a Voluntary Retirement Scheme (VRS) for its line staff, and a considerable number of employees are expected to embrace this scheme. Hence, a provision of Rs. 25 crore each has been considered in FY 2008-09 and FY 2009-10.

- MSEDCL, while estimating the employee expense for FY 2008-09 and FY 2009-10, has considered a provision of Rs 21.05 Crore (for 4th Quarter of FY 2008-09) and Rs 84.21 Crore (for entire FY 2009-10), under the new staffing pattern based on the "Review of Staffing Pattern" study conducted by M/s CRISIL and submitted to the Commission vide letter no. GAD/MPR/Staff Review/231 dated January 3, 2008, on which the Commission has issued its Order dated May 2, 2008 in Case No. 84 of 2007.

MSEDCL also submitted the following reasons for the increase in the various sub-heads of employee expenditure:

- Basic Salary: For FY 2008-09, MSEDCL has considered a 4% increase over the actual expenditure for FY 2007-08, and considering the expected inductions/retirements during FY 2008-09.
- Dearness Allowance (DA): Dearness Allowance has been computed as a percentage of the basic salary and is increased twice a year. Considering present trend of inflation, 11% increase in DA has been considered during the second half of the year. Average of opening basic salary and the closing basic salary has been considered for the assessment of DA, and DA rate has been considered as 104% of basic salary based on the weighted average rate of DA applicable during each month.
- Overtime Payment and other Allowances: Overtime is payable only for the line field staff, and has been projected to increase at the rate of 11% p.a. over the previous year's levels.
- Earned Leave Encashment: Only incremental provisioning has to be done in FY 2008-09 and in further years, since the first-time provisioning has been done in FY 2006-07. Provisioning of Rs. 154 crore has been considered towards earned leave encashment for FY 2008-09, and for FY 2009-10, a 5% increase has been assumed over the FY 2008-09 estimated figures.
- Staff Welfare Expenses: Based on the actual expenditure incurred in FY 2007-08, it is estimated that the total expenditure during the current year shall be Rs. 17.53 crore. For projecting the staff welfare expenses for FY 2009-10, the same percentage increase, i.e., 11% has been considered. This includes expense on

account of 'Group Personal Accident Policy' to cover all employees of MSEDCL in case of injuries/death occurred while in the service of the Company.

- Employee Training: As per the training policy of Ministry of Power, Government of India, it is expected that all the existing employees working in the Distribution Utilities should undergo minimum 7 days of training every year, and for newly recruited engineers, a minimum of 3 months Induction Level Training is mandatory as per the Indian Electricity Rules, 1956, amended in the year 2006; and 6 weeks Induction Level Training programmes for Technicians and Non-executives, i.e., LDC/UDC/meter readers, etc., is also recommended. A budget of around Rs 10.04 Crore and Rs. 10.41 crore has been proposed in FY 2008-09 and FY 2009-10, respectively, for training purposes.

In its APR Petition, MSEDCL has considered additional employee expenditure in the last quarter of FY 2008-09 and for the complete FY 2009-10. MSEDCL has submitted that, presently there are some vacancies at various levels and with the approval of new setup, these vacancies would be filled up, thereby increasing the employee expenses. In response to the Commission's query regarding the steps taken by MSEDCL to implement the new staffing pattern, MSEDCL replied that the new staffing pattern is still under consideration of the Board of Directors of MSEDCL, and clarified that no new employees had been recruited under the new staffing pattern. However, 1298 employees have been given appointments under C.S.28, i.e., dependents of deceased employees.

The Commission enquired of MSEDCL regarding the status of the wage revision agreement. MSEDCL replied that the Wage Negotiation Committee had been constituted and the process of negotiation had started. The Commission also sought clarification regarding whether the projected increase in the employee expenses is on account of wage revision agreement or impact of Sixth Pay Commission recommendations or both. In reply, MSEDCL clarified that the revision of pay scale of MSEDCL employees is due from April 1, 2008, and that there is no impact of Sixth Pay Commission's recommendations on MSEDCL's employee expenses, since the wage revision of MSEDCL is independent of the Pay Commission recommendations.

The Commission enquired of MSEDCL regarding the details of the Voluntary Retirement Scheme (VRS) initiated for line staff, the computation of VRS expenses, and the cost-benefit analysis of the same. MSEDCL was also asked to confirm whether the savings due to VRS scheme had been considered while projecting the employee expenses. In reply, MSEDCL submitted that the salient features of the scheme are as under:

The Line staff who have crossed the age of 45 years and are left with minimum two years of service and found physically unfit to carry out normal duties can submit application for Early Retirement under any of the following two options:

(A) The Line staff may opt for compensation as specified for remaining service period

OR

(B) Employment as 'Veej Sevak' to employee's son in lieu of early retirement under the said scheme.

MSEDCL submitted the computation of expenses considered on account of VRS Scheme as under:

(a) Actual amount of ex-gratia payment, i.e., compensation.

653 no.s of line staff have submitted applications where they have not nominated their son as Veej Sevak but asked for compensation for the balance service. The amount of compensation so computed is approximately Rs 29 Crore. Accordingly, MSEDCL has estimated expense of Rs 25 Crore each, for FY 2008-09 and FY 2009-10.

(b) The amount proposed to be paid towards terminal benefits such as leave encashment, gratuity, which would have been incurred in the normal course at the time of retirement, is required to be cleared during the financial year in which employees are relieved from service under this scheme. MSEDCL has estimated amount this amount as Rs 49 Crore for 1616 no.s of employees.

MSEDCL submitted the projected savings in employee expenditure on account of VRS scheme as under:

(A) <u>Projected savings when line staff is opting for Veej Sevak option:</u>

Total amount of savings during the period of 10 years: Rs.100 Cr. Approx.

Further, by employing 'Veej Sevak', MSEDCL will get technically qualified young blood, which will be more energetic and efficient at low cost.

(B) Projected savings when employees have opted for ex-gratia payment, i.e., compensation:

Under this option, 653 employees have submitted their options. The posts vacated by these employees will not be filled in by way of Direct Recruitment.

For FY 2008-09 and FY 2009-10, for each sub-head of employee expenditure, the Commission has considered an increase of around 7.31% p.a. on account of inflation factor corresponding to increase in Consumer Price Index (CPI) over the revised level of employee expenses as approved for FY 2007-08 and FY 2008-09, respectively. The Commission has considered the point to point inflation over CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2006-07 to FY 2008-09 (upto December 2008), to smoothen the inflation curve. The Commission will undertake the final truing up of employee expenses for FY 2008-09 based on actual employee expenses for the entire year and prudence check, during the APR process for FY 2009-10.

The amortisation of expenses on account of first-time provisioning of earned leave encashment, amounting to Rs. 88 crore annually, have been considered for FY 2008-09 and FY 2009-10, in accordance with the Commission's ruling in this regard in the APR Order for FY 2007-08.

In addition, for the purpose of provisional truing up for FY 2008-09 and allowing employee expenditure for FY 2009-10, the Commission has considered expenses of Rs 25 Crore due to VRS scheme, which is an additional expenditure over that in FY 2007-08. In this regard, MSEDCL has not specifically clarified whether the benefits have been considered while projecting the employee expenses for FY 2008-09 and FY 2009-10; however, study of the method used by MSEDCL for projecting the employee expenses indicates that the benefits of the VRS scheme have not been considered. The Commission has hence, taken into account the savings due to VRS scheme as well as Veej Sevak scheme, based on the submissions of annual savings estimated by MSEDCL, and considering the number of employees who have opted for the scheme and average salary expenditure as submitted by MSEDCL.

However, additional expenditure due to new staffing pattern has not been considered by the Commission, as MSEDCL in its replies has clarified that the new staffing pattern approved by the Commission is still under consideration of Board of Directors of MSEDCL. Since the APR Petition was filed in May 2009, no additional expenses on this account can be considered for FY 2008-09, since the same was not approved by the Board of Directors. For FY 2009-10 also, only 50% of the impact projected by MSEDCL on this account has been considered, since once Board approval is obtained, then the process of recruitment and appointment will have to be completed, which may result in the new employees joining MSEDCL not before October 1, 2009. Hence, 50% of the projected impact has been considered on account of new staffing pattern, in FY 2009-10.

As regards the impact of the pay revision to the extent of Rs 364 Crore and Rs. 422 crore in FY 2008-09 and FY 2009-10, respectively, it should be noted that MSEDCL's employee expenses are MSEDCL's employee expenses are one of the highest in the country, as per MSEDCL's own reply dated July 17, 2009 to the Commission's queries after admission of the APR Petition. There has to be an action plan to reduce the employee expenses. Merely because MSEDCL has entered into a Wage Agreement with the employees, the entire additional expenses cannot be passed through to the consumers, since the increase in employee expenses has to be linked to the efficiency gains. If the entire increase is passed through, there will be neither any incentive to the employees to moderate their demands, nor any incentive to management to restrict the wage increase. Keeping this in view, the Commission is allowing the expenses on a provisional basis, with the understanding that the wage increase will be correlated with future efficiency gains.

As regards the expenses projected by MSEDCL towards training of its employees, the Commission welcomes this step. However, MSEDCL should ensure that appropriate training is undertaken in order to bring its employees up-to-date with the latest techniques and to ensure that best practices are shared across the organisation. For FY 2008-09, only 50% of the projected expenses have been considered, since MSEDCL has not incurred any expenditure on this account in the first half of FY 2008-09. For FY 2009-10, the training expenses as projected by MSEDCL have been considered.

Accordingly, the approved employee expenses for FY 2008-09 and FY 2009-10 is summarised in the following Table:

Table: Approved Employee Expenses for FY 2008-09 and FY 2009-10 (Rs. Crore)

Particulars	**FY 2008-09**			**FY 2009-10**		
	APR Order	**Revised Estimate by MSEDCL**	**Approved After provisional truing up**	**MYT Order**	**Revised Estimate by MSEDCL**	**Approved**
Gross employee expenses	**1986**	**2063**	**1937**	**1837**	**2201**	**2126**
Less: Capitalisation	112	115	114	92	110	125
Net employee expenses	**1874**	**1948**	**1824**	**1745**	**2091**	**2001**
Deferred expense for Earned Leave Encashment as per MERC order dated 20/06/08 on APR for FY2007-08		**88**	**88**		**88**	**88**
Impact of Pay revision due on 1st April 2008		**364**	**364**		**422**	**422**
Net Employee Expenses	**1874**	**2400**	**2276**	**1745**	**2602**	**2512**

4.6.2 A&G Expenses

MSEDCL submitted that for FY 2008-09 and FY 2009-10, the revised A&G expenses have been estimated as Rs 257 Crore and Rs 302 Crore, respectively, as compared to the approved expenses of Rs 181 Crore and Rs 128 Crore for FY 2008-09 and FY 2009-10, respectively, in the APR and MYT Orders, respectively.

MSEDCL submitted that based on the present trend of inflation, MSEDCL has considered an increase of 10% over the previous year's expenses for most of the expense heads under A&G, for estimation of A&G expenses for FY 2008-09 and FY 2009-10. However, in case of conveyance and travel, computer stationery expenses, advertisement expenses, vehicle running, and vehicle hire expenses, an increase of 25 % over previous year's expenses has been considered, because of the increase in number of consumers, special recovery drive, theft detection drive, public awareness campaign, etc. Similarly, in case of rent, rates and taxes, a 12% increase over previous year's expenses has been considered. Also, since considerable capital expenditure has been planned for FY 2008-09 and FY 2009-10, an increase of 50 % has been considered for purchase related advertisement expenses over the previous year's expenses. The capitalisation of A&G expenses has been considered as 20%, i.e., the same rate as the actual capitalisation in FY 2007-08.

MSEDCL submitted the following reasons for the increase in the sub-heads of A&G expenditure:

- Conveyance and Travel expenses: In order to reduce distribution loss, there has been an increase in special recovery drive, theft detection drive, and public awareness campaign, etc. Also, the price of petrol and diesel has gone up considerably. Based on actual expenses incurred during FY 2007-08, MSEDCL has estimated that a total expenditure of Rs. 53.94 crore will be incurred in FY 2008-09, amounting to an increase of Rs.10.79 crore in FY 2008-09. The same has been projected to increase by 25% in FY 2009-10.
- Advertisement Expenses: A substantial increase has been projected over the previous year's expenses under this head, on account of the higher capital expenditure projected to be incurred, as well as the need to create public awareness to avoid theft of energy, promotion of energy conservation, etc.
- Telephone and Postage: Due to creation of new Circle, Divisions and Sub-division offices, the expenditure on telephone charges has increased considerably, and hence, an increase of 10% has been considered over actual expenses in FY 2007-08 for projecting the expenses for FY 2008-09 and FY 2009-10.
- Security arrangement: In order to protect MSEDCL's assets and provide adequate security to employees, additional security measures are required to be taken, leading to additional expenditure. Hence, MSEDCL has estimated an annual increase of 10% under this head in FY 2008-09 and FY 2009-10.
- Computer Stationery: The expenditure on Computer Stationery has been estimated to increase by approximately 25% in FY 2008-09 as compared to FY

2007-08, on account of shifting to photo billing, providing bills in Marathi language, as well as increase in the cost of stationery.

The A&G expenses are a controllable expense, and cannot be permitted to increase at the rate projected by MSEDCL. For FY 2008-09, the Commission has considered an increase of around 6.04% p.a. on account of inflation factor corresponding to increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI) over the revised level of A&G expenses as approved for FY 2007-08 in this Order. The Commission has considered the point to point inflation over WPI numbers (as per Office of Economic Advisor of Govt. of India) and CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2006-07 to FY 2008-09 (upto December 2008), to smoothen the inflation curve. The Commission has considered a weight of 60% to WPI and 40% to CPI, based on the expected relationship with the cost drivers. The Commission will undertake the final truing up of A&G expenses for FY 2008-09 based on actual A&G expenses for the entire year and prudence check, during the APR process for FY 2009-10.

Further, as regards appointment of consultants, the Commission directs MSEDCL that in future, any appointment of consultants where the estimated cost for the engagement of the Consultants is more than Rs. 1 crore, it should ensure that the selection is made through a competitive bidding process, proper Terms of Reference are prepared, cost benefit analysis is stated upfront and the deliverables of the consultancy assignment are properly defined. MSEDCL should submit the following details for all consultancy assignments of more than Rs 1 Crore in its APR and Tariff Petition:

- Process followed for appointment of Consultant including number of bids received along with bid documents
- Stated Cost-Benefit analysis and assessment of cost benefit analysis after completion of the assignment
- List of Deliverables submitted by Consultant

For FY 2009-10, for each sub-head of A&G expenditure, the Commission has considered an increase of around 6.04% p.a. on account of inflation over the revised level of A&G expenses as approved for FY 2008-09 under the provisional truing up exercise in this

Order, based on the increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI). Accordingly, the approved A&G expenses for FY 2008-09 and FY 2009-10 are summarised in the following Table:

Table: Approved A&G Expenses for FY 2008-09 and FY 2009-10 (Rs. Crore)

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved After provisional truing up	MYT Order	Revised Estimate by MSEDCL	Approved
Gross A&G expenses	**253**	**321**	**250**	**137**	**378**	**266**
Less: Capitalisation	72	64	50	8	75	53
Net A&G expenses	**181**	**257**	**201**	**128**	**302**	**213**

4.6.3 R&M Expenses

MSEDCL submitted that the R&M expenses have been estimated as Rs 578 Crore and Rs 636 Cr for FY 2008-09 and FY 2009-10, respectively, as compared to the approved expenses of Rs. 456 crore and Rs. 399 crore, for the respective years. MSEDCL submitted that the actual R&M expenditure of Rs 525.80 Crore in FY 2007-08, amounts to 4.99% of the opening GFA of FY 2007-08 (Rs. 10531 Crore), as compared to 4.65% of opening GFA considered by the Commission.

MSEDCL added that while estimating R&M expenses for FY 2008-09 and FY 2009-10, an annual increase of 10% has been considered over actual audited R&M expenses of FY 2007-08 and projected expenses of FY 2008-09, respectively.

In its Petition, MSEDCL submitted that the projected R&M expenditure for FY 2008-09 includes works like part replacement of HT & LT Cables, Distribution boxes, LT & HT poles, single phase/three phase/CT operated Meters, DTC Maintenance, re-earthing, providing guarding, crimping of jumpers at cut points, labour charges on all the above, etc.

MSEDCL requested the Commission to take into consideration the aspect of deteriorated infrastructure, its service life and its redundancy factor while approving the R&M expenditure for FY 2009-10. MSEDCL submitted that the allowance of R&M expenses equal to 3 to 3.5% of opening GFA will not suffice the purpose, and added that most of the distribution network is overhead and is therefore, susceptible to the onslaught of environment and other related factors. The spare parts are also not available due to change in technology and ceasing of production of such old equipments. Under this circumstance, reduction in life cycle and frequent maintenance is inevitable and the expenditure requirement is high.

It should be noted that as admitted by MSEDCL, in its MYT Petition, MSEDCL had projected R&M expenses at the rate of 3.5% of opening GFA for each year of the Control Period. However, in its APR Petition, MSEDCL is seeking approval for R&M expenses to the extent of 4.5% to 5% of the projected opening GFA. The Commission is of the view that such high R&M expenses cannot be allowed. Moreover, MSEDCL is also separately seeking approval for very high capital expenditure and is aiming to double its asset base in around three years time, as a result of which, the average age of MSEDCL's assets will come down, and hence, the need for R&M would also reduce as a % of GFA. Hence, the Commission has approved R&M expenses to the extent of 4.10% to 4.20% of GFA, as discussed below.

For FY 2008-09, the Commission has considered an increase of around 5.19% p.a. on account of inflation factor corresponding to increase in Wholesale Price Index (WPI) over the revised level of R&M expenses as approved for FY 2007-08 under the truing up exercise in this Order. The Commission has considered the point to point inflation over WPI numbers (as per Office of Economic Advisor of Govt. of India) for a period of 3 years, i.e., FY 2006-07 to FY 2008-09 (upto December 2008), to smoothen the inflation curve. The Commission will undertake the final truing up of R&M expenses for FY

2008-09 based on actual R&M expenses for the entire year and prudence check, during the APR process for FY 2009-10.

For FY 2009-10, for each sub-head of R&M expenditure, the Commission has considered an increase of around 5.19% p.a. on account of inflation over the revised level of R&M expenses as approved for FY 2008-09 under the provisional truing up exercise in this Order, based on the increase in Wholesale Price Index (WPI), as detailed above. Accordingly, the approved R&M expenses for FY 2008-09 and FY 2009-10 is summarised in the following Table:

Table: Approved R&M Expenses for FY 2008-09 and FY 2009-10 ***(Rs. Crore)***

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved After provisional truing up	MYT Order	Revised Estimate by MSEDCL	Approved
Net R&M expenses	456	578	458	399	636	482

4.7 Capital expenditure and capitalisation

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

MSEDCL submitted that the basic objective of incurring the capital expenditure was to upgrade the ageing and weak distribution network to desirable standards so as to provide better network reliability and sustainable performance. The plan also envisaged reinforcement of the system to provide quality, security and availability of power supply to the consumers, to undertake system development to meet the load growth, achieving the targeted reduction in system losses, undertake automation and other improvement works to enhance customer service and fulfil social obligation such as electrification of un-served areas. MSEDCL, in its Petition, proposed capital expenditure under the following broad heads:

- **APDRP Schemes** – These include departmental works, meters, SCADA, etc
- **Infrastructure Works Plan:** These include carrying out modification/ improvement in the distribution network.
- **Demand Side Management Schemes** – These include DPDC and other works in order to cover the release of domestic connection, agriculture connection, rural and industrial connection and associated infrastructure works, Gaothan Feeder Separation Scheme.
- **Automated Meter Reading**
- **RGGVY** - Electrification of rural households including 100 % Below Poverty Line (BPL) households and its associated infrastructure works
- **Agriculture Metering:** These include the metering works of un-metered agriculture connections in order to reduce the losses

Other than the above capital investment plan, MSEDCL proposed numerous other schemes for reactive power management, load growth, DTC metering, etc.

MSEDCL, in its Petition, proposed a total capitalisation of Rs. 2859.59 Crore in FY 2008-09 and Rs. 5821 Crore in FY 2009-10, which includes inter-alia, Rural Electrification Distribution schemes of Rs. 652 Crore in FY 2008-09 and Rs. 662 Crore in FY 2009-10, other distribution schemes of Rs. 101 Crore in FY 2008-09 and Rs. 586 Crore in FY 2009-10, Infrastructure works of Rs. 357 Crore in FY 2008-09 and Rs. 1250 Crore in FY 2009-10, Gaothan Feeder Separation Schemes (GFSS) Phase I & II of Rs. 480 Crore in FY 2008-09 and Rs. 1850 Crore in FY 2009-10, APDRP schemes Phase I & II of Rs. 864 Crore in FY 2008-09 and Rs. 162 Crore in FY 2009-10, DTC metering and schemes under DRUM of Rs. 161 Crore in FY 2008-09 and Rs. 140 Crore in FY 2009-10, Backlog schemes of Rs. 148 Crore in FY 2008-09 and Rs. 300 Crore in FY 2009-10. The details of total capital expenditure and capitalisation proposed by MSEDCL for FY 2008-09 and FY 2009-10 are shown in the Table below:

Table: Capital Expenditure and Capitalisation proposed by MSEDCL (Rs Crore)

	FY 2008-09				FY 2009-10			
Project Title	Opening CWIP	Investment during the Year	Total Capitalization	Closing CWIP	Opening CWIP	Investment during the Year	Total Capitalization	Closing CWIP
Automatic Meter Reading	-	5.52	5.52	-	-	30.00	30.00	-
Rural Electrification - Distribution								
(a) DPDC / Non-Tribal	56.47	45.00	101.46	0.01	0.01	95.00	95.00	0.01
(b) DPDC / SCP	22.10	35.38	57.48	-	-	63.44	63.44	-
(c)DPDC / TSP + OTSP	29.91	24.37	54.28	-	-	30.00	30.00	-
(d) SPA:PE	206.59	112.30	262.74	56.15	56.15	233.56	289.71	-
(e) P:SI	80.13	30.00	95.12	15.01	15.01	-	15.00	0.01
(f) P:IE	29.36	40.00	49.36	20.00	20.00	149.36	169.36	-
(g) New Consumers	-	25.00	25.00	-				
(h) R E Grant	-	7.00	7.00	-				
Govt. of India Scheme								
RGGVY	31.94	68.14	66.00	34.08	34.08	563.80	597.87	0.01
Distribution Schemes								
(a) PFC urban distribution Scheme	29.70	41.12	50.26	20.56	20.56	-	20.56	-
(b) MIDC (int. free loan) Scheme	24.70	0.11	24.81	-	-	200.58	200.58	-
(c) Evacuation of Power	-	-	-	-	-	3.46	3.46	-
(d) Evacuation of Wind Generation	-	-	-	-	-	35.36	35.36	-
Ag. Metering	-	10.00	10.00	-	-	360.73	288.58	72.14
JBIC	1.69	30.00	16.68	15.01	15.01	22.52	37.52	0.01
Infra plan Works	256.74	100.19	356.93	-	-	2,500.00	1,250.00	1,250.00
Special Projects								
(a) Gaothan Feeder Seperation Scheme - Phase I & Phase II	230.40	249.11	479.51	-	-	1,836.27	1,836.27	-
(b) Gaothan Feeder Seperation Scheme - Phase III	-	-	-	-	-	-	-	-
(C) Fixed Capacitor scheme.	-	-	-	-	-	19.82	19.82	-
APDRP								
Phase -1	516.17	199.60	715.77	-	-	-	-	-
Phase-2	15.27	132.59	147.86	-	-	-	-	-
Phase-3	-	-	-	-	-	162.00	162.00	-
Internal Reform								
a) DTC metering -Phase 1 and Phase 2	3.04	12.11	15.15	-	-	-	-	-
b) DTC metering -Phase 3	-	-	-	-				
b) MIS (Communication backbone)	2.07	5.00	7.07	-	-	89.75	89.75	-
c) DRUM	23.00	115.32	138.32	-	-	50.00	50.00	-
Load Management								
R & M	6.95	35.16	24.95	17.16	17.16	16.29	33.45	-
Feeder Management	-	-	-	-	-	2.25	2.25	-
Backlog	96.36	103.96	148.34	51.98	51.98	250.00	301.98	-
Total	**1,662.58**	**1,426.98**	**2,859.59**	**229.97**	**229.97**	**6,913.68**	**5,821.50**	**1,322.20**

In the context of Infrastructure works, MSEDCL submitted that it has submitted 119 DPRs as a part of infrastructure works amounting to a capital outlay of Rs. 8918.16 Crore, as approved by the Commission in-principle.

The Commission enquired from MSEDCL regarding the status and progress of capital expenditure schemes proposed during FY 2008-09 and FY 2009-10 in terms of placement of orders for the projects and advance payment made to Engineering, Procurement & Construction (EPC) contractor/s for the schemes. MSEDCL submitted the details of capital expenditure on Infrastructure Plans and Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), while in the case of APDRP and Gaothan Feeder Separation Scheme (GFSS), no orders were placed during FY 2008-09.

The Commission enquired regarding the actual (un-audited figures) scheme-wise capital expenditure and capitalisation for FY 2008-09, however, MSEDCL submitted that it was not in a position to submit the same. MSEDCL added that the details of the actual benefits accrued for capital expenditure incurred during FY 2007-08 and FY 2008-09 were under compilation.

The capital expenditure and capitalisation approved by the Commission in its previous Orders and the revised estimates submitted by MSEDCL in the APR Petition is shown in the Table below:

Table: Capital Expenditure and Capitalisation (Rs Crore)

Particulars	FY 2008-09		FY 2009-10	
	APR Order	Revised Estimate by MSEDCL	MYT Order	Revised Estimate by MSEDCL
Capital Expenditure	2471.35	1426.98	524.00	6913.68
Capitalisation	1414.03	2859.59	1026.93	5821.50

The capitalisation estimated by MSEDCL for FY 2008-09 is more than double the capitalisation approved by the Commission in its previous APR Order. MSEDCL should ensure that the projected benefits actually accrue in the interest of all 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 believes that close monitoring of scheme-wise capital expenditure and capitalisation of each scheme would enable MSEDCL to provide capital outlay related projections as close to reality, for the purpose of APR exercise. However, MSEDCL has not been able to submit even the actual (un-audited) capital expenditure and capitalisation in FY 2008-09.

The Commission is of the view that the revision in ARR/tariff sought by different Utilities as a part of the Annual Performance Review (APR) process for FY 2008-09 can be attributed primarily to increase in power purchase cost of distribution licensees and the steep increase in capital expenditure and capitalisation being undertaken by the Utilities in recent years. The issue of increase in power purchase expenses is being dealt with in the Orders of the respective distribution licensees, since the reasons for the increase are different for different distribution licensees. However, the issue of steep increase in capital expenditure and capitalisation is a generic issue and relevant for all the Utilities.

The Commission appreciates that the investment on capex schemes is an ongoing process for any Utility/Licensee. Capital expenditure is required for healthy system development with tangible and intangible benefits. The scope, objective and benefits are identified while formulating DPRs. However, after implementation of the scheme, before capitalisation, the benefits are to be demonstrated by the Utility before the scheme can be considered for passing on the costs to the consumers. The Utility is required to execute the capex schemes in a phased manner so as to minimise tariff shock attributable to capex implementation. The Commission can permit capex in the ARR only after the above-mentioned prudence check as there is an impact on tariff.

To understand the significance of the capitalisation claimed by MSEDCL, the actual capitalisation over the last four to five years vis-à-vis the opening GFA prevailing around 5 years ago have been compiled as under:

(Rs Crore)

Particulars	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
	Actuals	Actuals	Actuals	Actuals-Petitioner submission	Revised Estimate	Projected
Opening GFA						
MSPGCL	9319.00	9437.00	9641.99	9996.20	10120.59	10382.33
MSETCL	8060.28	8322.37	8632.69	8965.25	9831.27	11016.16
MSEDCL	8384.00	8894.00	9428.00	10530.80	11806.83	14444.80
Total	**25763.28**	**26653.37**	**27702.68**	**29492.25**	**31758.69**	**35843.29**
Asset addition during the year						

Particulars	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
	Actuals	Actuals	Actuals	Actuals-Petitioner submission	Revised Estimate	Projected
MSPGCL	118.00	204.99	343.39	152.55	261.74	836.62
MSETCL	262.34	310.41	332.59	867.14	1184.92	2879.34
MSEDCL	510.00	534.00	942.78	1278.54	2649.97	5479.47
Total	**890.34**	**1049.40**	**1618.76**	**2298.23**	**4096.63**	**9195.44**
Asset write off/retirement during the year						
MSPGCL	0.00	0.00	-0.07	-28.33	0.00	0.00
MSETCL	-0.25	-0.09	-0.68	-1.12	-0.03	0.00
MSEDCL	0.00	0.00	-0.27	-2.51	-12.00	-13.00
Total	**-0.25**	**-0.09**	**-1.02**	**-31.96**	**-12.03**	**-13.00**
Closing GFA						
MSPGCL	9437.00	9641.99	9985.31	10120.59	10382.33	11218.95
MSETCL	8322.37	8632.69	8964.60	9831.27	11016.16	13895.51
MSEDCL	8894.00	9428.00	10370.51	11806.83	14444.80	19911.27
Total	**26653.37**	**27702.68**	**29320.42**	**31758.69**	**35843.29**	**45025.73**

Note: Figures taken from Audited A/c or respective Tariff Orders or ARR Petition of Utilities as available

The above compilation has been done for MSEB as a whole, to give a better picture of the overall increase in asset addition over the last five years, since MSEB was earlier being regulated as an integrated Utility.

It is clear from the above Table that the Gross Fixed Assets have increased by around 19%, 67%, and 124% for the Generation, Transmission, and Distribution Business, respectively, over the last five years. The pace of asset addition has increased by leaps and bounds over the last five years. MSEDCL has projected to more than double its asset base (as in FY 2004-05) by the end of FY 2009-10, while MSPGCL and MSETCL have also proposed to increase their asset base (as in FY 2004-05) to around 1.2 to 1.7 times. Further, when these Utilities were operating in an integrated manner during the period FY 2004-05 and FY 2005-06, the total asset addition every year was only around Rs. 900 to 1000 Crore, whereas in FY 2008-09 and FY 2009-10, each of the Businesses are individually adding assets of more than this amount every year on an average. The addition to the asset base is clearly not commensurate either with the increase in sales or increase in demand in MW served. Since the Utilities were able to serve the existing consumer base well enough with the existing assets, the rationale for this steep increase in the asset base needs to be examined further. The oft repeated argument of the Utilities that in the past, there was a backlog on this account and that they want to make it up is also unconvincing to justify the 100% increase in the asset base in such a short period.

The steep increase in the asset base every year to increase the returns from the regulated business has been identified as one of the main reasons for increase in tariff every year by the consumers during the Public Hearing conducted by the Commission on the APR Petitions filed by the Utilities in the State.

During the Public Hearings, there was a huge resistance to the proposed tariff increase and one of the common objections put forth by the consumers and the public have been that the increase in ARR/tariff being sought by the Utilities is exorbitant and the capital expenditure should not be allowed to the extent sought by the Utilities, since there has not been any noticeable increase in the sales quantum or any significant improvement, and in fact, in some cases, deterioration in the service quality over the period.

Further, as regards capital expenditure, the Commission has instituted a process of giving in-principle approval for the capital expenditure schemes costing above Rs. 10 Crore (together known as DPR Schemes), wherein the Utility has to submit Detailed Project Report (DPR) as well as the expected cost-benefit analysis, pay back period, etc., as per well laid out guidelines. Schemes costing less than Rs. 10 Crore are considered as non-DPR schemes and the Utilities are not required to submit any DPR for the approval of the same. It is often observed that at the time of obtaining in-principle approval of the Commission for the DPR schemes, the Utilities indicate several quantifiable benefits and a short payback period. However, the Utilities are not able to substantiate the benefits once the capital investment is actually undertaken and the assets are added to the Gross Fixed Assets (GFA). As a result, the costs and hence, the tariffs are increased, but the expected benefits to the system do not accrue.

In this regard, the in-principle approval given by the Commission to the DPR Schemes has certain standard covenants. One such in-principle approval given to a scheme submitted by MSETCL is reproduced below, for reference:

"…

2. Please ***note that this in-principle clearance should not be construed as final approval for ARR purpose and the scheme will be open for scrutiny during the tariff determination process/ARR review, particularly in the context of actual cost incurred, scope and objective achieved etc. ex post after implementation of the scheme****. MSETCL will be required to submit the status of implementation of the scheme with cost incurred till date, likely completion date etc. along with their ARR petition or during the tariff determination process at the appropriate time.*

3. MSETCL should submit half yearly report giving the status of implementation of the scheme in terms of expenditure incurred and item wise physical progress achieved during the implementation of the scheme.

4. Assets created after execution of the scheme should be maintained separately in the Asset register.

5. Immediately after completion / commissioning of the respective scheme, MSETCL should communicate to the Commission the date of completion of the scheme, actual cost incurred, escalation in cost, if any with reasons, the scope and objectives of the scheme and to what extent they have been achieved, etc. so as to facilitate a comparison between the in-principle clearance and the actual."(emphasis added)

However, the Utilities have not been able to submit any evidence that the scope and objective of the scheme have been achieved.

In this context, the recent Report by Forum of Regulators on Multi-Year Framework has also emphasized that the capital expenditure plans of Utilities should clearly bring out cost benefit analysis and targeted reduction in technical losses.

In view of the above, as a general rule, the Commission has decided that the total capital expenditure and capitalisation on non-DPR schemes in any year should not exceed 20% of that for DPR schemes during that year. To achieve the purpose, the purported non-DPR schemes should be packaged into larger schemes by combining similar or related non-DPR schemes together and converted to DPR schemes, so that the in-principle approval of the Commission can be sought in accordance with the guidelines specified by the Commission.

Further, in the absence of documentary evidence that the stated purpose and objective of the capex schemes have been achieved, the Commission is restricting the capitalisation considered for the purposes of determination of ARR and tariff. Once MSEDCL submits the necessary justification to prove that the scope and objective of the capex scheme has been achieved as projected in the DPR, the same may be considered in future Orders. MSEDCL is directed to prioritise the capex schemes based on importance and the schemes may be implemented in phased manner to minimise the impact on transmission cost.

For the purpose of provisional truing up for FY 2008-09, the Commission is of the view that the benefits of capex schemes need to be examined and until it is ascertained that the projected benefits actually accrue for the benefit of the stakeholder, it would not be appropriate to allow such expenses. Moreover, MSEDCL has not submitted the details of actual capital expenditure and capitalisation in FY 2008-09 till date. Accordingly, out of proposed capitalisation of Rs 2859.59 Crore by MSEDCL during FY 2008-09, the Commission has considered total capitalisation of Rs. 941.71 Crore during FY 2008-09 equivalent to 50% of the capitalisation of DPR schemes for which in-principle approval has been granted by the Commission, which amounts to capitalisation of Rs 939.46 Crore and capitalisation of non-DPR schemes of Rs 2.25 Crore. The Commission shall consider actual capitalisation of the DPR schemes during FY 2008-09 at the time of annual performance review for FY 2009-10, subject to prudence check and upon evaluation of actual cost-benefit derived in respect of DPR schemes vis-à-vis projected cost-benefit analysis presented at the time of granting in-principle approval for such DPR schemes.

Out of proposed capitalisation of Rs 5821 Crore during FY 2009-10, the Commission has only considered DPR schemes for which in-principle approval has been granted. Further, as stated earlier, in-principle approval does not absolve the Utility's senior management of the need to undertake cost-benefit analysis and prioritise the DPR schemes before initiating implementation, and hence, the Commission has considered capitalisation of DPR schemes for FY 2009-10 as Rs. 1297.73 Crore. Upon ascertaining the actual cost-benefit analysis of various schemes, which have been granted in-principle approval, the Commission shall undertake true-up of capitalisation subject to prudence check during

Annual Performance Review for FY 2009-10. Accordingly, the Commission has considered the capitalisation for the period as shown in the Table below:

Table: Capital Expenditure and Capitalisation (Rs Crore)

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved	MYT Order	Revised Estimate by MSEDCL	Approved
Capital Expenditure	2471.35	1427.00	-	524.00	6913.68	-
Capitalisation	1414.03	2859.59	941.71	1026.93	5821.43	1297.73

4.8 Depreciation

The Commission had considered depreciation to the extent of Rs 427.87 Crore for FY 2008-09 in the APR Order dated June 20, 2008, and to the extent of Rs 489.71 Crore for FY 2009-10 in its MYT Order, which amounts to 3.70% and 3.88% of Opening level of Gross Fixed Assets (GFA) of MSEDCL for FY 2007-08 and FY 2008-09, respectively. The opening GFA was stated at Rs 11573.97 Crore for FY 2008-09 and Rs 12629.89 Crore for FY 2009-10. The depreciation rates were considered as prescribed under MERC Tariff Regulations.

MSEDCL, in its APR Petition, submitted the revised estimate of depreciation for FY 2008-09 and FY 2009-10 as Rs 457.49 Crore and Rs 559.71 Crore, respectively, at an overall depreciation rate of 3.87% corresponding to opening GFA of 11806.83 Crore and Rs 14444.80 Crore, respectively, as shown in the Table below:

Table: Depreciation Projected by MSEDCL (Rs Crore)

Particulars	FY 2008-09		FY 2009-10	
	APR Order	Revised Estimate by MSEDCL	MYT Order	Revised Estimate by MSEDCL
Depreciation	427.87	457.49	489.71	559.71
Opening GFA	11573.97	11806.83	12629.89	14444.80
Depn as % of Op. GFA	**3.70%**	**3.87%**	**3.88%**	**3.87%**

In view of revised value of capitalisation as approved under previous paragraphs, the approved depreciation expenditure for FY 2008-09 and FY 2009-10 is summarised in the following Table:

Table: Depreciation approved (Rs Crore)

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved	MYT Order	Revised Estimate by MSEDCL	Approved
Depreciation	427.87	457.49	400.10	489.71	559.71	436.13
Opening GFA	11573.97	11806.83	10831.14	12629.89	14444.80	11760.85
Depreciation as % of Op. GFA	**3.70%**	**3.87%**	**3.69%**	**3.88%**	**3.87%**	**3.71%**

The Commission will undertake the truing up of Depreciation based on actual capitalisation in the year, subject to prudence check, during Performance Review for the third year of Control Period, i.e., FY 2009-10.

4.9 Interest Expenses

The Commission had permitted net interest expense to the extent of Rs 346.62 Crore for FY 2008-09 , in the APR Order dated June 20, 2008, and net interest expense of Rs 375.34 Crore for FY 2009-10 in its MYT Order. Loan additions of Rs 1237.27 Crore and Rs 722.47 Crore were considered in the APR Order for FY 2008-09 and MYT Order for FY 2009-10, respectively.

MSEDCL, in its APR Petition, submitted the revised estimate of net interest expense for FY 2008-09 and FY 2009-10 as Rs 353.30 Crore and Rs 827.06 Crore, respectively, as summarised in the following Table:

Table: Interest Expense (Rs Crore)

Particulars	FY 2008-09		FY 2009-10	
	APR Order	Revised Estimate by MSEDCL	MYT Order	Revised Estimate by MSEDCL

Particulars	**FY 2008-09**		**FY 2009-10**	
	APR Order	**Revised Estimate by MSEDCL**	**MYT Order**	**Revised Estimate by MSEDCL**
Op. balance of loan	2,804.36	3,630.78	3,473.89	3,390.16
Loan Addition	1,237.27	1,008.62	722.47	5,022.28
Loan Repayment	(315.19)	(240.62)	(444.79)	(459.81)
Cl. Balance of loan	3,726.44	4,398.78	3,751.57	7,952.63
Gross Interest Expense	**346.62**	**413.37**	**-**	**933.91**
Less: IDC (existing loan)	-	(26.95)	-	(38.36)
Less: IDC (new loan)	-	-	-	-
Net Interest expense	**346.62**	**353.30**	**375.34**	**827.06**

MSEDCL, in its Petition, submitted the funding pattern for capital expenditure schemes to be undertaken in FY 2008-09 and FY 2009-10. MSEDCL submitted that it has considered a moratorium period of three years for new loans drawn during FY 2008-09 and FY 2009-10. Further, an interest rate of 13.50% has been assumed for the loans drawn from Power Finance Corporation (PFC) and 13.00% for loans drawn from Rural Electrification Corporation (REC) for the new loans. MSEDCL also clarified that it had excluded the three-year short term loan from REC while computing the opening and closing loan balance and corresponding interest expense.

The Commission asked MSEDCL to submit the copies of loan agreements for loans raised during FY 2007-08, FY 2008-09 and FY 2009-10 along with source-wise and tranche-wise interest computations for the respective years. MSEDCL replied that it had entered into numerous loans agreements with Financial Institutions/Banks, and considering the volume of information, MSEDCL submitted sample loan agreement copies.

The Commission enquired regarding the basis for considering interest rate of 13.50% and 13.00% for loans drawn PFC and REC, respectively. MSEDCL replied that it has considered the interest rates on the basis of effective rates declared by the respective Financial Institutions and submitted the corresponding documents for the same. Based on the documents submitted, the Commission observes that the revision in interest rates by PFC was in the context on Short Term Loans (STL) in contrast to the term loans, which is expected to be used as source of finance. Accordingly, the Commission has considered an interest rate of 13.00% based on latest disbursements for new loans taken from PFC for

FY 2008-09 and FY 2009-10. In the context of new loans taken from REC, based on the loan agreements submitted by MSEDCL, it is observed that interest rates for Reforming State Sector, for distribution business, the specified interest rate is 12.50%, as prevalent during FY 2008-09. Accordingly, an interest rate of 12.50% has been considered for new loans from REC for FY 2008-09 and FY 2009-10. In the case of loans taken from GoM, an interest rate of 11.50% has been considered as submitted by MSEDCL.

The funding pattern for the schemes approved by the Commission and considered to be capitalized during FY 2008-09 and FY 2009-10, based on the DPRs submitted by MSEDCL is shown in the Table below:

Table: Funding Pattern for FY 2008-09 and FY 2009-10 (Rs Crore)

FUNDING PATTERN	FY 2008-09	FY2009-10
TOTAL CAPITALISATION	**941.71**	**1297.73**
Less : GRANT	141.01	292.08
Less : CONSUMER CONTRIBUTION	311.35	429.05
FUND REQUIREMENT EXCLUDING GRANT AND CONSUMER CONTRIBUTION	**489.35**	**576.60**
PERCENTAGE		
EQUITY	10.69%	20.29%
DEBT	89.31%	79.71%
EQUITY	52.33	116.96
DEBT	437.02	459.64
TOTAL (DEBT AND EQUITY)	**489.35**	**576.60**

Based on the above, the interest expenses approved by the Commission for FY 2008-09 and FY 2009-10 are shown in the Table below:

Table: Interest Expenses approved by the Commission (Rs Crore)

Particulars	FY 2008-09	FY 2009-10

	APR Order	Revised Estimate by MSEDCL	Approved	MYT Order	Revised Estimate by MSEDCL	Approved
Op. balance of loan	2,804.36	3,630.78	2,484.04	3,473.89	3,390.16	2,680.44
Loan Addition	1,237.27	1,008.62	437.02	722.47	5,022.28	459.64
Loan Repayment	(315.19)	(240.62)	(240.62)	(444.79)	(459.81)	(463.70)
Cl. Balance of loan	3,726.44	4,398.78	2,680.44	3,751.57	7,952.63	2,676.38
Gross Interest Expense	**-**	**413.37**	**258.22**	**-**	**933.91**	**282.84**
Less IDC (existing loan)	-	(26.95)	(19.88)	-	(38.36)	(21.78)
Less IDC (new loan)	-	-	-	-	-	-
Net Interest expense	**346.62**	**353.30**	**238.33**	**375.34**	**827.06**	**261.06**

4.10 Advance against Depreciation

In view of revision in approved depreciation and approved principal repayment for FY 2008-09 and FY 2009-10, as against that claimed by MSEDCL, the claim for advance against depreciation also needs to be revised. Accordingly, Advance against Depreciation (AAD) projected by MSEDCL and approved by the Commission for FY 2008-09 and FY 2009-10 is as under:

Table: Advance against Depreciation approved by the Commission (Rs Crore)

Particulars	**FY 2008-09**			**FY 2009-10**		
	APR Order	**Revised Estimate by MSEDCL**	**Approved**	**MYT Order**	**Revised Estimate by MSEDCL**	**Approved**
Depreciation	427.87	457.49	400.10	489.71	559.71	436.13
Loan Repayment	(315.19)	(240.62)	(240.62)	(444.79)	(459.81)	(463.70)
Advance against depreciation (AAD)	0.00	0.00	0.00	0.00	0.00	27.57
Depreciation incl. AAD	427.87	457.49	400.10	489.71	559.71	463.70

4.11 Interest on Working Capital and Consumers' Security Deposit and Other Interest & Finance Charges for FY 2008-09 and FY 2009-10

MSEDCL submitted that after restructuring of the erstwhile MSEB in 2005, Consumer Security Deposit to the tune of Rs.1822.65 crore appearing in the books of erstwhile MSEB was allocated to MSEDCL in the Opening Balance Sheet of MSEDCL, which was a book entry rather than cash available to MSEDCL in the form of Consumer Security Deposit. However, as per MERC Tariff Regulations, the normative working capital requirement for MSEDCL is computed by considering such high Consumer Security Deposit, which works out to be negative. As per audited accounts for FY 2007-08, Consumer Security Deposit amount is Rs.2624.29 crore, thus indicating that MSEDCL has collected Rs. 801.64 crore as Consumer Security Deposit over the opening balance. However, the Transfer Scheme is still under consideration before Government of Maharashtra for finalisation.

MSEDCL added that in order to maintain the Standards of Performance (SoP) and to discharge the obligations specified by the Commission through various Regulations and the EA 2003, MSEDCL tried for transit finance from Financial Institutions as well as from the State Government to support the newly incorporated Company. MSEDCL was able to get Rs. 1300 crore from REC as short-term loan to support huge cash shortage and working capital gap in FY 2005-06. MSEDCL has paid Rs. 72 crore towards interest on REC short-term loan during FY 2007-08 as per audited accounts. In addition, MSEDCL has estimated a payment of Rs.26 crore in FY 2008-09 on account of interest on REC short-term loan.

MSEDCL prayed to the Commission to:

1. allow estimated interest of Rs 26 Crore on REC Short Term Loan for FY 2008-09.

2. compute normative Working Capital requirement by excluding opening balance of Consumers' Security Deposit of Rs 1822.65 Crore on account of restructuring of erstwhile MSEB (i.e., considering post re-structuring Consumer Security

Deposit amount of Rs 801.64 Crore only) till the finalization of the Transfer Scheme by GoM.

3. allow Interest on Working Capital based on 'Practical Consideration' rather than on 'Normative Consideration', since the Collection Efficiency is likely to go down as ASC mechanism has been discontinued by allocating costly power purchase to all categories of consumers where average realisation rate is very less as compared to average purchase cost of costly power.

MSEDCL submitted that the Other Interest and Finance Charges consists of guarantee charges, bank and other charges, interest on security deposit, stamp duty and service fee, as discussed below:

- Guarantee Charges: Guarantee Charges for existing Loans only is computed against those loans, which are under GoM Guarantee. This includes the loans from PFC, REC and Canara Bank. The charges are calculated at the rate of 1% and 2% on outstanding balance and Interest on particular date, respectively, as indicated in GoM Resolution.
- Bank and Other Charges: For FY 2008-09 and FY 2009-10, Bank Charges are calculated at the rate of 1% of Letter of Credit (LC) charges assumed to be revolving three times in a year. Further, it is also assumed that additional LC will be provided to MSPGCL, MSETCL and other Power Traders over and above the existing bank charges.
- Interest on Consumer Deposits: As the amount of security deposit up to FY 2007-08 is Rs. 2624.30 crore, the interest on consumer security deposit for FY 2008-09 and FY 2009-10 is estimated by considering 10% increase in security deposit from consumers and considering an interest rate of 6%, which is the prevailing Bank Rate of interest, in accordance with the MERC Tariff Regulations.

Accordingly, MSEDCL projected the interest and finance charges for FY 2008-09 and for FY 2009-10 as tabulated below:

Table: MSEDCL Projections of Other Interest and Finance Charges ***(Rs Crore)***

	Audited	FY 2008-09	FY 2009-10

	Audited	FY 2008-09	FY 2009-10
Interest on Security Deposit	113.6	173.20	190.5
Guarantee Charges	31.45	31.45	31.45
Finance Charges	51.74	71.21	74.77
Stamp Duty	2.05	2.16	2.26
Total Other Interest & Finance Charges	198.8	278.01	299.00

The Commission has estimated the working capital requirement of MSEDCL for FY 2008-09 and FY 2009-10, in accordance with the MERC Tariff Regulations. Since the working capital requirement works out to be negative, no working capital interest has been allowed. As regards MSEDCL's submission that working capital interest should be computed on 'practical considerations' rather than 'normative considerations', the same is not tenable in law. The MERC Tariff Regulations are applicable to all Utilities in the State of Maharashtra, and the Commission cannot make an exception for MSEDCL. As regards MSEDCL's submission that estimated interest expenditure of Rs. 26 crore on account of REC short-term loan should be allowed in FY 2008-09, the same will be considered at the time of final truing up for FY 2008-09 under the mechanism of sharing of efficiency gains and losses, in a manner similar to that undertaken by the Commission for FY 2007-08, wherein actual working capital interest of Rs. 75 crore incurred by MSEDCL has been partly allowed to be recovered from the consumers under Regulation 19 of the MERC Tariff Regulations. As regards MSEDCL's request to consider only the Consumers' Security Deposit that has been collected after June 5, 2005, and keep aside the opening balance of Consumers' Security Deposit for computing the normative Interest on Working Capital, the same cannot be considered, since for all other computations, the Commission is considering the values from the provisional Transfer Scheme.

As regards interest on consumers' security deposit, the Commission has accepted MSEDCL's projections of the security deposit and has computed the interest on the same at the rate of 6%, in accordance with the MERC Tariff Regulations. The Commission has accepted MSEDCL's projections of guarantee charges and stamp duty. However, Finance Charges for FY 2008-09 and FY 2009-10 have been considered at the same as the actuals for FY 2007-08, since the Commission has considered lower capital expenditure and capitalisation, and hence, lower loans.

The approved interest on working capital and consumers' security deposit and Other Interest and Finance Charges for MSEDCL for FY 2008-09 and FY 2009-10 is given in the following Table:

Table: Interest on Working Capital and Consumers' Security Deposit and Other Interest & Finance Charges for FY 2008-09 and FY 2009-10 (Rs Crore)

Particulars	**FY 2008-09**			**FY 2009-10**		
	APR Order	**Revised Estimate by MSEDCL**	**Approved After provisional truing up**	**MYT Order**	**Revised Estimate by MSEDCL**	**Approved**
Interest on Working Capital	0	0	0	0	0	0
Interest on consumers' security deposits	163	173	173	192	191	191
Other Interest & Finance Charges	108	105	85	93	108	85
Total Other Interest & Finance Charges	**271**	**278**	**258**	**285**	**299**	**276**

4.12 Contribution to Contingency Reserves for FY 2008-09 and FY 2009-10

MSEDCL estimated the contribution to contingency reserve as 0.25% of opening GFA for FY 2008-09 and FY 2009-10, amounting to Rs 30 Crore and Rs 36 Crore, respectively, in accordance with the MERC Tariff Regulations.

The Commission has considered the contingency reserve as 0.25% of Opening GFA for both FY 2008-09 and FY 2009-10, based on the revised level of capitalisation considered in this Order. Also, as stated in Section 3 on truing up for FY 2007-08, MSEDCL should ensure that the funds under contingency reserve are invested in approved securities within the time frame specified under the MERC Tariff Regulations.

4.13 Other Expenses

MSEDCL submitted that Other Expenses consists of compensation for injuries, death and damages to staff and outsiders and miscellaneous charges, etc. MSEDCL estimated the other expenses for FY 2008-09 and FY 2009-10 at Rs. 5.41 Crore and Rs. 5.95 Crore, respectively.

For FY 2008-09 and FY 2009-10, the Commission has considered the Other Expenses as Rs 4.92 crore, which is the actual and approved Other Expenses for FY 2007-08 after final truing up.

4.14 Provisioning for Bad Debts

In the APR Petition, MSEDCL submitted that the provisioning for bad debts has been considered as 1.5% of projected revenue for FY 2008-09 and FY 2009-10, which works out to Rs 373 Crore and Rs 429 Crore, respectively.

In this regard, the Commission enquired of MSEDCL regarding whether MSEDCL is only provisioning for bad debts, or some bad debts are actually being written off. The Commission also sought data regarding the balance amount under provisioning for bad debts and the change in the same over the last few years. In reply, MSEDCL submitted details of opening balance of provisioning for bad debts in FY 2003-04, provisioning over the period from FY 2003-04 to FY 2007-08, actual bad debts written off during the respective years, and the closing balance of provisioning for bad debts at the end of FY 2007-08.

From MSEDCL's submission, it is clear that MSEDCL has written off bad debts for the first time in many years in FY 2007-08. Also, even after considering Rs 180 Crore of bad debts written off in FY 2007-08, there is a balance of Rs 609 Core at the end of FY 2007-08. Further, the Audited Accounts (Schedule 15) shows bad debts written off as Rs 12.19 Crore, though MSEDCL is claiming Rs 180 Crore for which the matching entry in Audited Accounts is not visible. If actual write off is only Rs 12 Crore, then available provisioning will be higher by 168 Crore, to total Rs 767 Crore.

The Commission is of the view that there may be no need to keep on increasing the provisioning for bad debts as there is still a large balance accumulated provision available. Hence, the Commission has considered provisioning for bad debts at the same rate as last year, i.e., 1.5% of actual/projected revenue from sale of electricity in FY

2008-09 and FY 2009-10, which works out to Rs. 312 crore and Rs. 408 crore for FY 2008-09 and FY 2009-10, respectively.

However, MSEDCL should take efforts to recover the amount receivable, which is increasing every year, or write off the bad debts that are considered as not recoverable, despite MSEDCL's best efforts to recover the same. In case the provisioning for bad debts is not necessitated due to adequate provisioning for bad debts, then the Commission may consider allowing lower amount for the same for FY 2008-09 and FY 2009-10, at the time of truing up, since this is not an actual expense, and is only a book entry.

4.15 Incentives and Discounts

In the APR Petition, MSEDCL projected the expenditure towards incentives and discounts for FY 2008-09 and FY 2009-10 as Rs. 77 crore and Rs. 81 crore, respectively. The Commission has accepted MSEDCL's projections in this regard.

4.16 Return on Equity (RoE)

The Commission had permitted return on equity to the extent of Rs 581.18 Crore for FY 2008-09 in the APR Order dated June 20, 2008, and allowed return on equity of Rs 449.61 Crore for FY 2009-10 in its MYT Order dated May 18, 2007, at a rate of return of 16% in accordance with Regulations 63.1 and 76.1 of MERC Tariff Regulations. MSEDCL, in its APR Petition, submitted the revised estimate of return on equity for FY 2008-09 and FY 2009-10 as Rs 629 Crore and Rs 782 Crore, respectively as shown in the Table below:

Table: Return on Equity (Rs Crore)

Particulars	FY 2008-09		FY 2009-10	
	APR Order	Revised Estimate by MSEDCL	MYT Order	Revised Estimate by MSEDCL
Reg. Equity at beginning of year	3544.03	3642.61	2758.69	4223.28
Total Capitalisation during the year		**2859.59**	**1026.92**	**5821.45**
Less : Grants		-209.62		-341.98
Less : Consumer Contribution				
Net Capitalisation		**2649.97**	**1026.92**	**5479.47**
Equity Portion of Capitalised Expenditure	176.75	580.67	102.69	1324.77

Particulars	FY 2008-09		FY 2009-10	
	APR Order	Revised Estimate by MSEDCL	MYT Order	Revised Estimate by MSEDCL
Reg. Equity at the end of the year	3720.78	4223.28	2861.38	5548.05
Return on Reg. Equity at beginning of year	567.04	582.82	441.39	675.73
Return on Equity Portion of Capital Expenditure Capitalised	14.14	46.45	8.22	105.98
Return on excess portion of equity		0.00		0.00
Total Return on Regulated Equity	**581.18**	**629.27**	**449.61**	**781.71**

MSEDCL submitted that based on the capitalisation and funding pattern as proposed, the return on equity on the equity portion has been claimed at 16%.

The Commission has computed the RoE for FY 2008-09 and FY 2009-10 on the opening balance of equity as well as equity component of the asset to be capitalised during the year in accordance with the Regulation 63.1 and Regulation 76.1 as applicable for the distribution business. Accordingly, approved Return on Equity for FY 2008-09 and FY 2009-10 is summarised in the following Table:

Table: Return on Equity approved by the Commission (Rs Crore)

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved	MYT Order	Revised Estimate by MSEDCL	Approved
Reg. Equity at beginning of year	3544.03	3642.61	3108.63	2758.69	4223.28	3160.97
Total Capitalisation during the year		**2859.59**	**941.71**	**1026.92**	**5821.45**	**1297.73**
Less : Grants		-209.62	-141.01		-341.98	-292.08
Less : Consumer Contribution			-311.35			-429.05
Net Capitalisation		**2649.97**	**489.35**	**1026.92**	**5479.47**	**576.60**
Equity Portion of Capitalised Expenditure	176.75	580.67	52.33	102.69	1324.77	116.96
Reg. Equity at the end of the year	3720.78	4223.28	3160.97	2861.38	5548.05	3277.93
Return on Reg. Equity at beginning of year	567.04	582.82	505.76	441.39	675.73	524.47
Return on Equity Portion of Capital Expenditure Capitalised	14.14	46.45	4.19	8.22	105.98	9.36

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved	MYT Order	Revised Estimate by MSEDCL	Approved
Total Return on Regulated Equity	**581.18**	**629.27**	**509.94**	**449.61**	**781.71**	**533.83**

4.17 Income Tax for FY 2008-09 and FY 2009-10

MSEDCL submitted that it has considered the Income Tax for FY 2008-09 and FY 2009-10 at Rs 86 Crore, as approved by the Commission in its APR Order dated June 20, 2008 and MYT Order dated May 18, 2007, respectively.

In reply to the confirmation sought by the Commission, MSEDCL has confirmed that it has not paid any income tax or advance tax for FY 2008-09, and hence, the Commission has not considered any expenditure towards income tax for FY 2008-09, since the same is based on the actual payment.

Considering the past trend and the fact that MSEDCL is yet to pay income tax for FY 2009-10, the Commission is of the view that there is no need to load the consumers' tariff on this account at this point in time. Hence for FY 2009-10, the Commission has not allowed any expense towards income tax payment. However, if any income tax is actually paid by MSEDCL, then the same will be allowed at the time of truing up.

4.18 Non-Tariff Income for FY 2008-09 and FY 2009-10

MSEDCL submitted that non-tariff income for MSEDCL consists of income from interest on consumer arrears, interest on delayed payments, recoveries from theft of power, rebate on power purchase, interest on other investments, income from rents, etc.

MSEDCL submitted that interest on delayed payments and interest on arrears forms the largest component of Non-Tariff Income, accounting for over 61% of the total amount. MSEDCL projected the total non-tariff income for FY 2008-09 and FY 2009-10 as Rs 897.56 Crore and Rs 1182.28 Crore, respectively. MSEDCL submitted that for forecasting the Non-Tariff Income for FY 2009-10, MSEDCL has considered an escalation of 31.72% over the estimated Non-Tariff Income for FY 2008-09, which is mainly on account of considering the increase in the income from interest on delayed payments. MSEDCL submitted that the interest on Contingency Reserve Funds is also included in the Non Tariff Income.

MSEDCL has considered increase of around 6.8% for each head of Non Tariff Income in FY 2008-09, which has been accepted by the Commission. However, though MSEDCL has stated that the interest from investment of contingency reserves and income from recovery from theft of power have been considered under Non Tariff Income, the same is not reflected in the detailed Formats submitted by MSEDCL in this regard. Hence, the Commission has considered income under these heads, while projecting the Non Tariff Income for FY 2008-09.

For FY 2009-10, based on the detailed Format submitted by MSEDCL along with the APR Petition, it appears that MSEDCL has made a computational error while projecting the Non Tariff Income for FY 2009-10, by considering the growth rates equivalent to the absolute values of Non Tariff Income approved in the MYT Order, rather than considering the growth rates. The Commission has hence, projected the Non Tariff Income for FY 2009-10, by considering a 6.8% increase in all heads of Non Tariff Income, and considering additional interest on the contingency reserve funds that should have been invested in FY 2008-09.

Accordingly the Non Tariff Income considered by the Commission for FY 2008-09 and FY 2009-10 is given in the Table below:

Table: Non Tariff Income for FY 2008-09 and FY 2009-10 (Rs Crore)

Particulars	FY 2008-09			FY 2009-10		
	APR Order	Revised Estimate by MSEDCL	Approved After provisional truing up	MYT Order	Revised Estimate by MSEDCL	Approved
Non Tariff Income	1074	898	964	1209	1182	1031

Further, the income from wheeling charges has been considered as Rs. 6 crore for FY 2008-09 and FY 2009-10, which is the actual income from wheeling charges earned by MSEDCL in FY 2007-08.

4.19 Aggregate Revenue Requirement of MSEDCL for FY 2008-09 and FY 2009-10

Based on the above expenses approved by the Commission, the Aggregate Revenue Requirement approved by the Commission for MSEDCL for FY 2008-09 and FY 2009-10 is given in the following Tables:

Table: Aggregate Revenue Requirement for FY 2008-09 (Rs Crore)

Sl.	Particulars	FY 2008-09		
		APR Order	MSEDCL (Revised Estimate)	Allowed after provisional truing up
1	Power Purchase Expenses	19403	18488	17774
2	Operation & Maintenance Expenses			
2.1	Employee Expenses	1874	2400	2276
2.2	Administration & General Expenses	181	257	201
2.3	Repair & Maintenance Expenses	456	578	458
3	Depreciation, including advance against depreciation	428	457	400
4	Interest on Long-term Loan Capital	347	353	238
5	Interest on Working Capital, consumer security deposits and Finance Charges	271	278	258
6	Provision for Bad & Doubtful Debts	335	373	312
7	Other Expenses	5	5	5
8	Income Tax	86	86	0
9	Transmission Charges and SLDC Fees & Charges	1786	1733	1744
10	Contribution to contingency reserves	29	30	27
12	Incentives/Discounts given to consumers	79	77	77
13	Interest on Working Capital required on account of REC short term loan	0	26	
14	**Total Revenue Expenditure**	**25278**	**25143**	**23772**
15	Return on Equity Capital	581	629	510
16	**Aggregate Revenue Requirement**	**25860**	**25772**	**24281**
17	Less: Non Tariff Income	1074	898	964
18	Less: Income from wheeling charges			6
23	Less: Amount given by State Government to meet power purchase expenses			200

Sl.	Particulars	FY 2008-09		
		APR Order	MSEDCL (Revised Estimate)	Allowed after provisional truing up
24	**Aggregate Revenue Requirement from Retail Tariff**	**24785**	**24875**	**23111**
25	RLC refund	500	500	500
26	Pending claim - FAC interest	12		12
27	Truing up for FY 2001-02	-469		-469
28	Truing up for FY 2006-07	-214		-214
29	Provisional truing up for FY 2007-08	-756		
30	Less: FPA considered in Power Purchase expenses		-1169	
31	**Net Aggregate Revenue Requirement**	**23858**	**24206**	**22940**

The Aggregate Revenue Requirement for FY 2008-09 is significantly lower than that projected by MSEDCL, primarily due to the following reasons:

- Reduction in power purchase expenses due to consideration of the actual power purchase expenses incurred by MSEDCL in FY 2008-09, as well as non-consideration of expenses incurred in power purchase for Interim Franchisees, since the equivalent revenue from levy of Reliability Charges in the areas where the Zero Load Shedding Scheme is functional. Hence, this does not affect MSEDCL.
- Further, the Government of Maharashtra has issued a Government Resolution (GR) ref: 2008/Sankirna – 2008/Pra.Kra. 211/Urja-3 dated May 29, 2009, wherein GoM has agreed to provide an amount of Rs. 200 crore for power purchase of upto 400 MW per month for the period from March 2009 to May 2009. Accordingly, the Commission has considered Rs. 200 crore towards power purchase expenses for March 2009, which has been shown separately in the ARR. Hence, this does not affect MSEDCL.
- Reduction in transmission tariff payable by MSEDCL, due to the downward revision in the transmission tariff, as determined in a separate Order in Case No. 155 of 2008. Hence, this does not affect MSEDCL.
- Reduction in O&M expenses, in accordance with the Commission's philosophy as regards allowance of controllable expenses like employee expenses, A&G

expenses and R&M expenses.

- Reduction in proposed capitalisation and consequent reduction in interest expenses, depreciation, Other Interest and Financing charges, and return on equity components.
- Non-consideration of Income Tax, since no Income Tax has been paid by MSEDCL for FY 2008-09. Hence, this does not affect MSEDCL.
- The RLC refund has been considered as Rs. 500 crore by MSEDCL as well as the Commission; hence, this does not affect MSEDCL.
- The pending claim of FAC interest has not been considered by MSEDCL while computing the revenue requirement, though the same had been considered by the Commission while determining the tariffs for FY 2008-09. The Commission has considered the same, and the ARR has been increased to this extent, under the provisional truing up exercise; hence, this benefits MSEDCL.
- The revenue surplus considered by the Commission after final truing up for FY 2001-02 (Rs. 469 crore) and FY 2006-07 (Rs. 214 crore) has not been considered by MSEDCL while computing the revenue requirement, though the same had been considered by the Commission while determining the tariffs for FY 2008-09. This issue was raised by consumers and Consumer Representatives during the public process, and MSEDCL has given contradictory submissions in this regard. On the one hand, it has submitted that it is not seeking reversal of the surplus considered by the Commission for FY 2001-02, while on the other hand, in reply to the Commission's specific query in this regard, MSEDCL has replied that the true-up amount for FY 2001-02 has been disputed by MSEDCL, and being aggrieved by the treatment for determination of net revenue requirement for FY 2008-09 in Case No. 72 of 2007, MSEDL has preferred an appeal before Appellate Tribunal of Electricity (ATE) in Appeal No. 185 of 2008. However, there is no stay on the Commission's Order in this regard, and mere filing of Appeal does not amount to a stay. Hence, the Commission has considered this surplus amount of Rs. 469 crore to reduce the ARR of FY 2008-09 correspondingly. As regards the surplus of Rs. 214 crore considered by the Commission for FY 2006-07, MSEDCL submitted a Review Petition, numbered as Case No. 42 of 2008, wherein MSEDCL submitted that the Commission's approach had resulted in double-counting of the ASC revenue and hence, MSEDCL was entitled to additional revenue of Rs. 427 crore in FY 2008-09, and only then, would the computation of surplus of Rs. 214 crore be appropriate. The

Commission accepted MSEDCL's submission in this regard, and allowed MSEDCL to recover additional revenue of Rs. 427 crore in FY 2008-09. Hence, non-consideration of surplus of Rs. 214 crore of FY 2006-07 while undertaking provisional truing up for FY 2008-09, would tantamount to double-counting in favour of MSEDCL. Hence, the Commission has considered this surplus amount of Rs. 214 crore to reduce the ARR of FY 2008-09 correspondingly. Hence, this does not affect MSEDCL.

- As regards surplus estimated by the Commission for FY 2007-08, since the Commission did not accept MSEDCL's prayer in the Review Petition to allow additional recovery for FY 2007-08, the surplus estimated by the Commission has not been considered while determining the ARR of FY 2008-09. Hence, this does not affect MSEDCL.

Table: Aggregate Revenue Requirement for FY 2009-10 (Rs Crore)

Sl.	Particulars	FY 2009-10		
		MYT Order	MSEDCL (Revised Estimate)	Approved
1	Power Purchase Expenses		21342	19898
2	Operation & Maintenance Expenses			
2.1	Employee Expenses	1745	2602	2512
2.2	Administration & General Expenses	128	302	213
2.3	Repair & Maintenance Expenses	399	636	482
3	Depreciation, including advance against depreciation	490	560	464
4	Interest on Long-term Loan Capital	375	827	261
5	Interest on Working Capital, consumer security deposits and Finance Charges	285	299	276
6	Provision for Bad & Doubtful Debts	283	429	407
7	Other Expenses	2	6	5
8	Income Tax	86	86	0
9	Transmission Charges and SLDC Fees & Charges		1786	1494
10	Contribution to contingency reserves	63	36	29
12	Incentives/Discounts given to consumers	79	81	81
13	Interest on Working Capital required on account	0	0	

Sl.	Particulars	FY 2009-10		
		MYT Order	MSEDCL (Revised Estimate)	Approved
	of REC short term loan			
14	**Total Revenue Expenditure**	**3936**	**28992**	**26122**
15	Return on Equity Capital	450	782	534
16	**Aggregate Revenue Requirement**	**4385**	**29773**	**26655**
17	Less: Non Tariff Income	1209	1182	1031
18	Less: Income from wheeling charges			6
23	Less: Amount given by State Government to meet power purchase expenses			400
24	**Aggregate Revenue Requirement from Retail Tariff**	**3177**	**28591**	**25218**

The Aggregate Revenue Requirement for FY 2009-10 is significantly lower than that projected by MSEDCL, primarily due to the following reasons:

- Reduction in power purchase expenses due to consideration of lower power purchase quantum, due to the lower sales projected by the Commission for FY 2009-10, as elaborated earlier in this Section. Hence, this does not affect MSEDCL.
- In the context of the Government of Maharashtra Resolution (GR) ref: 2008/Sankirna – 2008/Pra.Kra. 211/Urja-3 dated May 29, 2009, wherein GoM has agreed to provide an amount of Rs. 200 crore for power purchase of upto 400 MW per month for the period from March 2009 to May 2009, the Commission has considered Rs. 400 crore towards power purchase expenses for the months of April and May 2009, which has been shown separately in the ARR. Hence, this does not affect MSEDCL.
- Reduction in transmission tariff payable by MSEDCL, due to the downward revision in the transmission tariff, as determined in a separate Order in Case No. 155 of 2008. Hence, this does not affect MSEDCL.
- Reduction in O&M expenses, in accordance with the Commission's philosophy as regards allowance of controllable expenses like employee expenses, A&G expenses and R&M expenses
- Reduction in proposed capitalisation and consequent reduction in interest expenses, depreciation, Other Interest and Financing charges, and return on equity

components.

- Non-consideration of Income Tax, since no Income Tax has been paid by MSEDCL till date. Hence, this does not affect MSEDCL.

4.20 Revenue from existing tariff for FY 2008-09 and FY 2009-10

In the APR Petition, MSEDCL has computed the revenue from existing tariffs for FY 2008-09, on the basis of the category-wise sales and the prevailing category-wise tariffs, as Rs. 22533 crore. For FY 2009-10, MSEDCL estimated the revenue from sale of electricity as Rs. 26169 crore, on the basis of the projected sales during this period and the prevailing category-wise tariffs.

The Commission asked MSEDCL to submit the details of the actual category-wise sales and actual revenue earned through the sales to different consumer categories in FY 2008-09, which was submitted by MSEDCL. The Commission also asked MSEDCL to submit the data on actual subsidy billed to the State Government and subsidy received from the State Government. MSEDCL submitted that the total subsidy amount receivable from the State Government for FY 2008-09 was estimated as Rs. 1825 crore, of which around Rs. 831 crore has been received by end-September 2008.

The Commission has considered the actual revenue earned by MSEDCL from sale of electricity to its consumers in FY 2008-09 as Rs. 19995 crore, after deducting Rs. 815 crore on account of estimated revenue from levy of Reliability Charges, to match the reduction in power purchase expenses considered by the Commission on account of power purchase for Interim Franchisees. The subsidy from the State Government has been considered as Rs. 1825 crore for FY 2008-09 as submitted by MSEDCL. The revenue from miscellaneous charges has been considered as Rs. 139 crore, at the same level as the actual revenue from miscellaneous charges earned by MSEDCL in FY 2007-08. The total revenue from sale of electricity considered by the Commission is thus, Rs. 21959 crore. Based on audited results submitted at the time of APR of FY 2009-10, the Commission will true up the actual expenses and revenue for FY 2008-09, subject to prudence check.

For FY 2009-10, the Commission has estimated the revenue from sale of electricity on the basis of the revised sales projected by the Commission for this period and the prevailing category-wise tariffs, after considering the impact of the prevailing average FAC of 25 paise/kWh, as considered by MSEDCL, since the actual power purchase cost and revenue for FY 2008-09 are being considered under the provisional truing up exercise, and the power purchase expenses in FY 2008-09 have been considered as the base for projecting the power purchase expenses for FY 2009-10. The expected revenue from sale of electricity to consumers at existing tariffs for FY 2009-10 works out to Rs. 26018 crore. This revenue includes the annual standby charges of Rs. 396 crore payable by Mumbai licensees, viz., REL, BEST and TPC, for the standby facility provided by MSEDCL. In addition, the revenue from miscellaneous charges has been considered as Rs. 139 crore, at the same level as the actual revenue from miscellaneous charges earned by MSEDCL in FY 2007-08. Thus, the total revenue from existing tariffs in FY 2009-10 has been estimated as Rs. 26158 crore.

4.21 Revenue Gap for FY 2008-09 and FY 2009-10

Based on the above Aggregate Revenue Requirement and the Revenue from Sale of Electricity, the Revenue Gap as estimated by MSEDCL and as approved by the Commission for FY 2008-09 and FY 2009-10 is given in the following Table:

Table: Revenue Gap in FY 2008-09 and FY 2009-10 (Rs Crore)

Sl.	Particulars	FY 2008-09		FY 2009-10	
		MSEDCL (Revised Estimate)	After Provisional Truing Up	MSEDCL (Revised Estimate)	Approved
1	Aggregate Revenue Requirement	24206	22940	28591	25218
2	Revenue from sale of electricity	22533	21959	26169	26158
3	Revenue Gap/(Surplus)	1673	981	2422	-940

Thus, the Commission has considered a revenue gap of Rs. 981 crore and a surplus of Rs. 940 crore for FY 2008-09 and FY 2009-10, respectively, as compared to MSEDCL's projections of revenue gap of Rs. 1673 crore and Rs. 2422 crore for FY 2008-09 and FY 2009-10, respectively.

4.22 Other claims

In addition to the above Revenue Requirement, MSEDCL has also made certain Other Claims. MSEDCL's submissions on each of these issues and the Commission's analysis of the same are detailed in the subsequent paragraphs.

4.22.1 Incentive for over-achievement of Distribution Losses in FY 2007-08

MSEDCL's submissions in this regard and the Commission's analysis and ruling have already been elaborated in Section 3.18 of this Order. The incentive has been considered under the sharing of efficiency gains and losses due to controllable factors, and is hence not being considered separately under the Commission's computations.

4.22.2 Interest Expenses and AAD for FY 2006-07

MSEDCL's submissions in this regard and the Commission's analysis and ruling have already been elaborated in Sections 3.7 and 3.8 of this Order. The Commission has allowed the claim of Rs. 47 crore against interest and Rs. 14 crore against AAD for FY 2006-07, separately, while computing the overall Revenue Gap.

4.22.3 Allowance of Expenses of FY 2005-06 by Appellate Tribunal for Electricity

MSEDCL submitted that the Commission, in its MYT Order dated May 18, 2007, had disallowed employee expenses and A&G expenses to the extent of Rs. 82 crore and Rs. 21 crore, which has been allowed by the ATE in its Judgment in Appeal No. 109 of 2007, as reproduced below:

> "*..Accordingly, we set aside the impugned order passed by the State Commission in respect of Employee Expenses and A&G expenses for the year 2005-06 with the direction to the Commission to approve the said expenses in totality as submitted by the Appellant, as the same being based on actuals.*"

Hence, MSEDCL requested the Commission to allow Rs 103 Crore as a part of revenue gap of FY 2009-10, which has been accepted by the Commission.

4.22.4 Impact of APR Petitions filed by MSPGCL and MSETCL

MSEDCL submitted that it had considered power purchase of 48091MU from MSPGCL, at the rate of Rs 1.88/kWh for FY 2009-10 based on actual power purchase cost incurred during FY 2008-09. However, MSPGCL has considered average generation tariff as Rs 2.45 per kWh in its APR Petition. MSEDCL submitted the impact of this additional power purchase rate as sought by MSPGCL as Rs 2741 Crore.

MSEDCL submitted that it had considered Transmission Charges for FY 2009-10 as Rs 1786 Crore based on transmission charges allowed by the Commission for FY 2008-09. However, MSETCL has projected an ARR of Rs 3021 Crore for FY 2009-10 in its APR Petition. Since, MSEDCL's share of MSETCL's ARR is 82% as approved by Commission for FY 2008-09, MSEDCL's share works out to Rs 2477 Crore. MSEDCL submitted the impact of transmission ARR as sought by MSETCL as Rs 691 Crore.

As discussed earlier, the Commission has already considered the impact of the Orders issued by the Commission on the APR Petitions filed by MSPGCL and MSETCL, while determining MSEDCL's ARR for FY 2009-10. Hence, no further impact needs to be considered separately on this account.

4.22.5 RLC Refund

MSEDCL submitted that it has considered Rs 500 Crore as a provision for refund of Regulatory Liability Charges (RLC) to the consumers as directed by the Commission during the TVS. MSEDCL submitted that RLC refund would be done as per the methodology prescribed by the Commission.

The Commission has considered the amount of Rs. 500 crore towards RLC refund in FY 2009-10, since the contribution of RLC was in the nature of interest-free loans given by selected consumer categories to MSEDCL, which needs to be refunded. In addition, as stated in Section 3.18 of this Order, the Commission has added the amount of Rs. 176.2 crore to the amount available for refund of RLC. Thus, the total amount to be considered for RLC refund in FY 2009-10 is Rs. 676.2 crore. As regards the methodology for the refund of RLC, the Commission has already elaborated the same in the APR Order for MSEDCL in Case No. 72 of 2007. The methodology of RLC refund is stated below:

The refund of RLC would be undertaken on a one-to-one basis, rather than to the contributing category as a whole, in the following manner.

a. The refund of RLC will be in absolute terms, viz., Rs/month, and not in terms of paise/kWh of consumption, so that the consumers are eligible for a fixed amount every month, irrespective of their consumption, minimising the need for undertaking detailed truing up of this refund amount. It would also ensure that no injustice is done to consumers who have shifted/are planning to shift to captive consumption subsequently.

b. Since Rs. 676.2 crore is to be refunded in FY 2009-10 out of the total RLC collection of Rs. 3227 crore, the refund in FY 2009-10 will be in the same proportion of the contribution by that consumer. The percentage of refund works out to 21%. This will also ensure that consumers get the refund in the exact same proportion as their consumption, and consumers who have paid RLC for a lower duration, would get lower refund on a monthly basis, such that all the consumers get their complete refund over the same period of time.

4.22.6 ASC Refund

MSEDCL submitted that it has filed a separate Petition for the determination of ASC refund amount. In accordance with the Commission's direction during the TVS to include the impact of ASC refund in the ARR, MSEDCL has included ASC refund amount of Rs 659 Crore. MSEDCL submitted that the ASC refund would be done as per the methodology prescribed by the Commission.

During the hearing in Case No. 139 of 2008 on MSEDCL's Petition to refund ASC, MSEDCL was directed to submit the revised Petition, after re-computing the amount of ASC refund, such that the ASC was refunded on a one-to-one basis as originally directed by the Commission. Subsequently, MSEDCL submitted its revised Petition, wherein the amount of refund has been reassessed as Rs. 592 crore. Accordingly, the Commission has considered RLC refund of Rs. 592 crore in the ARR of FY 2009-10. The detailed computation and the methodology of ASC refund will be determined by the Commission upon hearing the Parties in Case No. 139 of 2009.

5 TARIFF PHILOSOPHY AND CATEGORY-WISE TARIFFS FOR FY 2009-10

5.1 Applicability of Revised Tariffs

The revised tariffs will be applicable from August 1, 2009. In cases, where there is a billing cycle difference for a consumer with respect to the date of applicability of the revised tariffs, then the revised tariff should be made applicable on a pro-rata basis for the consumption. The bills for the respective periods as per existing tariff and revised tariffs shall be calculated based on the pro-rata consumption (units consumed during respective period arrived at on the basis of average unit consumption per day multiplied by number of days in the respective period falling under the billing cycle).

The Commission has determined the tariffs and revenue from revised tariffs as if the revised tariffs are applicable for the entire year. The Commission clarifies that any shortfall/surplus in actual revenue vis-à-vis the revenue requirement approved after truing up, due to the applicability of the revised tariffs for only eight months of FY 2009-10, will be trued up at the end of the year.

The Commission will undertake the Annual Review of MSEDCL's performance during the last quarter of FY 2009-10. MSEDCL is directed to submit its Petition for Annual Review of its performance during the first half of FY 2009-10, as well as truing up of revenue and expenses for FY 2008-09, with detailed reasons for deviation in performance, latest by November 30, 2009.

5.2 Consolidated Revenue Gap

In Section 3 and Section 4 of this Order, the Commission has deliberated on the revenue gap for FY 2007-08, FY 2008-09 and FY 2009-10, as projected by MSEDCL and as approved by the Commission.

The consolidated revenue requirement for FY 2009-10 has been computed as shown in the following Table, by adding the revenue gap of FY 2007-08 after final truing up, revenue gap of FY 2008-09 after provisional truing up, revenue gap of FY 2009-10 on a stand-alone basis with existing tariffs, and the Commission's ruling on Other Claims submitted by MSEDCL, as elaborated in Section 4.22 of this Order.

Table: Consolidated Revenue Gap in FY 2009-10 (Rs Crore)

Sl.	Particulars	MSEDCL		Approved by Commission
		APR Petition	Supplementary Petition	
1	True Up requirement of FY 2007-08	444	444	551
2	Provisional True up of FY 2008-09	1673	1673	981
3	Revenue Gap of FY 2009-10	2422	1751	-939
4	Incentive for FY 2007-08 for reduction in Distribution Losses	284	284	
5	Review Petition: Interest Expenses & AAD Disallowed in FY 2006-07	61	61	61
6	ATE Judgment: Allowance of Employee and A&G expenses for FY 2005-06	103	103	103
7	**MSEDCL Revenue Gap for FY 2009-10 (sum of Sl. 1 to 6 above)**	**4986**	**4315**	**757**
8	Estimated MSPGCL Impact	2741	1811	
9	Estimated MSETCL Impact	691	691	
10	Less: Additional Revenue due to surplus energy available			-750
11	**TOTAL REVENUE GAP (7+8+9+10)**	**8418**	**6817**	**7**
12	Provision for RLC Refund in FY 2009-10	500	500	500
13	Provision for ASC refund in FY 2009-10	659	659	592
14	**Total Revenue Gap in FY 2009-10 to be recovered through tariff (11+12+13)**	**9577**	**7976**	**1099**
15	**Average Tariff Increase**	**36.60%**	**29.72%**	**4.2%**

In the above Table, as discussed in the sub-section on sales projections for FY 2009-10, there is a surplus energy availability of around 2969 MU, which works out to around 2429 MU available for sales to different categories, after deducting distribution losses. The Commission has computed the additional revenue that can be earned through this additional sale by apportioning the additional energy availability primarily to the LT consumer categories, and HT V and Mula Pravara, since they are also affected by load shedding, in proportion to the consumption mix, since they are affected by load shedding. The additional revenue has been computed by considering the additional sales at the average billing rate for the respective category, and works out to Rs. 750 crore, which has been used to reduce the revenue gap, since the cost of the additional energy has already been considered under the power purchase expenses.

As can be seen from the above Table, the consolidated revenue gap estimated by the Commission for FY 2009-10 works out to Rs. 1099 crore, as against the revenue gap of Rs. 9577 crore projected by MSEDCL in the APR Petition, and revenue gap of Rs. 7976 crore projected by MSEDCL in the Supplementary Submission. The effective average tariff increase required vis-à-vis the revenue from existing tariffs in FY 2009-10 after considering the prevailing FAC of 25 paise/kWh, works out to 4.2%, as compared to 36.6% and 29.7% tariff increase projected by MSEDCL in the APR Petition and Supplementary Submission, respectively.

5.3 Tariffs philosophy Proposed by MSEDCL

MSEDCL submitted that the category-wise tariffs should be revised in such a manner that the entire revenue gap of Rs. 9577 crore is recovered through the revised tariffs in FY 2009-10. MSEDCL added that out of the 36.6% average tariff increase sought by MSEDCL, 4.43% would be refunded to consumers, through RLC refund (1.91%) and ASC refund (2.52%), and the effective tariff increase that would be retained by MSEDCL would be 32.17%. Accordingly, MSEDCL proposed category-wise tariffs such that the average tariff increase amounts to 45% for HT category and 28% for LT category. The tariff philosophy adopted by the Commission and the category-wise tariffs determined by the Commission have been elaborated subsequently in this Section.

Further, MSEDCL also made certain suggestions regarding the tariff philosophy to be adopted by the Commission, which are summarised below, along with the Commission’s ruling on the same:

(a) Removal of FAC Cap

MSEDCL submitted that the existing mechanism of recovery of variation in cost of fuel and power purchase through the Fuel Adjustment Cost formula does not permit levy of monthly FAC exceeding 10% of variable component of the prevailing tariff. MSEDCL submitted that the Commission can modify the ceiling. MSEDCL submitted that the State of Maharashtra is facing acute shortage of power and as a result of limited availability of power throughout the country; the cost of power has increased abnormally. In its efforts to restrict the duration of load shedding, MSEDCL procures all the available power from the market at a considerably higher price. However, MSEDCL needs to pass on this additional burden to the consumers through the FAC Formula but is limited to the ceiling of 10% of the variable component of tariff. The under-recovered FAC is carried forward to future periods, resulting in additional carrying cost, which only increases the un-recovered amount and the same amounts to notional relief. MSEDCL submitted that FAC mechanism is meant to defray expenses relating to increase in fuel and power purchase expenses beyond reasonable control and within the efficiency parameters laid down by the Commission. Moreover, the 10% ceiling does not serve the purpose for which it is intended, since the consumer has to subsequently pay for such increase either through FAC or through energy charges in the subsequent truing up process. On the contrary, such ceiling unnecessarily aggravates the liquidity problems and adversely affects the financial health of MSEDCL.

MSEDCL added that under the EA 2003, there is no such binding provision restricting levy of FAC to the maximum of 10% of the variable component; rather, the various provisions of the EA 2003 emphasize the need for full cost recovery of fuel cost. MSEDCL further submitted that the Tariff Policy also specifically prescribes that the uncontrollable cost should be recovered speedily to ensure that future consumers are not burdened with past cost.

In view of this, MSEDCL requested the Commission to remove the ceiling of 10% on FAC recovery so as to ensure that the full eligible amount of increase in power purchase cost is recovered through FAC.

Commission's Ruling

MSEDCL had filed a Petition in this regard in Case No. 102 of 2008, wherein MSEDCL sought removal of the FAC cap on account of expected under-recovery of FAC due to the presence of the cap on FAC recovery. In this Order, the Commission rejected MSEDCL's request for removal of cap on FAC recovery, and ruled as under:

> *"41. On the issue of removal of FAC cap on the basis of projected FAC under-recovery for the period from November 2008 to March 2009, the Commission is of the view that it may not be appropriate to remove the ceiling on FAC recovery on the basis of projected data and permit MSEDCL to levy a substantially high FAC charge to consumers without prior approval of the Commission as that may*

lead to a huge tariff shock for the consumers. Since, the objective of having a cap on FAC recovery is to avoid automatic pass through of such expenses without prior approval and hence, avoid the causing of tariff shock to the consumers, the Commission is not inclined to amend or vary the present FAC cap which is 10% of the variable component of tariff.

However, taking into account the proviso to Regulation 82.6 which permits that any excess in the FAC charge over the above ceiling shall be carried forward by the Distribution Licensee and shall be recovered over such future period as may be directed by the Commission, the Commission will approve the FAC to be recovered by MSEDCL in excess of existing ceiling on recovery through FAC charge, i.e., 30.9 paise/kWh, after a detailed vetting of the actual FAC data on case-to-case basis.

… In this view of the matter, and taking into account similar directions issued by the Commission in similar petitions filed by MSEDCL, Regulation 82.6 of the Tariff Regulations is not being varied or amended. Accordingly, MSEDCL's present Petition in Case No. 102 of 2008 stands dismissed, with liberty to MSEDCL to submit the details of FAC Computations in the formats prescribed by the Commission for vetting for the period November 2008 to February 2009 based on actual data, if MSEDCL wishes to recover any excess in the FAC charge over the above ceiling of 10% of the variable component of tariff."

While determining the power purchase expenses for FY 2009-10, the latest prices have been considered by the Commission, and any variation in cost of fuel or power purchase will be recovered through the FAC mechanism. As regards MSEDCL's request for removal of the FAC cap, the Commission, having already ruled on this matter in Case No. 102 of 2008, does not find any merit in removing the cap on FAC recovery at this stage.

(b) Levy of Proportionate FAC

MSEDCL submitted that the rationale adopted by the Commission for prescribing differential tariff for different consumer categories should be extended to levy of FAC, such that the consequential share of FAC for different consumer categories would be proportionate to the base tariff of respective consumer category. MSEDCL submitted that the prevailing provision of levy of FAC at a uniform rate in absolute terms of paise per kWh may defeat the principle so far followed by the Commission while prescribing differential tariff across different categories of consumers. In such mechanism, there would be a possibility that certain subsidised consumer categories such as LT Agriculture, LT Domestic BPL, etc., may have to share the burden of costly power without getting benefited by it.

MSEDCL submitted that the FAC being a component of 'energy charge' and the energy charge being different for different categories of consumers, FAC also needs to be levied to the different categories in proportion to the energy charge as applicable to the respective category. MSEDCL added that MSEDCL is facing lot of hardship in recovering even the regular (base tariff) energy bill from consumer categories like BPL Domestic, LT and HT Agricultural, etc. The levy of FAC at a uniform rate to these categories of consumers does not really serve the purpose for which it was intended, and may further worsen the liquidity / cash flow of MSEDCL.
MSEDCL submitted that a few States like Jharkhand, Andhra Pradesh, Chhattisgarh, etc. have taken the decision, either to exempt certain subsidized categories of consumers from the levy of FAC or to apportion the excess expenditure of power procurement on limited categories of consumers on proportionate basis.

Accordingly, MSEDCL proposed that BPL Domestic, LT and HT Agricultural consumers should be exempted from levy of FAC, and the FAC should be levied in proportion to the base tariff as may be applicable to the remaining categories of consumers.

Commission's Ruling
MSEDCL had filed a Petition in this regard in Case No. 103 of 2008, wherein MSEDCL sought to exempt the above-mentioned categories from levy of FAC, and levy of FAC in proportion to the base tariff for the remaining consumer categories. In this Order, the Commission rejected MSEDCL's request, and ruled as under:

> *"31. Regulation 82 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 clearly stipulate that FAC charge will be applicable for all consumers, without any exception. Further, the Regulations provide for uniform charging of FAC for all consumers, as is evident from the formula specified for computation of FAC on per kWh basis, …*

34. As regards MSEDCL's first prayer to exempt certain consumer categories from levy of FAC charge and to levy FAC charge in proportion to the respective base tariff of the remaining consumer categories, it should be noted that the Commission, in its Tariff Orders, has determined the tariff based on the tariff philosophy adopted in the respective Tariff Orders and the provisions of law. The tariffs and tariff categorisation have been determined so that the cross-subsidy is reduced without subjecting any consumer category to a tariff shock to the extent possible, and also to consolidate the movement towards uniform tariff categorisation throughout the State of Maharashtra.

35. The FAC charge is being levied on the consumer categories on account of the change in the cost of power generation and power procured due to change in fuel cost, which comprises almost 70 to 80% of the Distribution Licensee's Aggregate Revenue Requirement, and any expense pertaining to the regulated business of the Distribution Licensee has to be recovered from all consumers in some manner. Since no consumer is given electricity free of cost, if any category is exempted from levy of FAC charges, it would amount to that category not having to share the incremental cost of fuel for own generation and power purchase. Moreover, it should be appreciated that prior to the approval of the FAC Formula by the Commission, in case of the erstwhile MSEB, the agricultural consumers were exempted from paying FAC charges, and the Commission has ruled that all consumers should pay the FAC charges without exception, after a lot of deliberation on this issue. Therefore, it will not be appropriate to exempt certain categories while levying FAC charge.

36. As regards MSEDCL's second prayer to levy FAC charges in proportion to the base tariff of the respective consumer category and the contentions put forth by MSEDCL to justify this prayer, the Commission's views are as under. Contrary to the interpretation of MSEDCL that uniform FAC charge amounts to cross-subsidy being given by the normally subsidised consumers to the subsidising consumers, the levy of uniform FAC charge to all consumer categories actually results in reducing the cross-subsidy to some extent, since the difference between the effective tariff of the subsidised and subsidising consumer categories is reduced vis-à-vis the average cost of supply. The reduction of cross-subsidy is in accordance with the provisions of the Electricity Act, 2003 and the Tariff Policy notified by the Government of India, which requires the cross-subsidy to be reduced progressively to + 20% of the average cost of supply by the year 2010-

11. Also, since the tariff of the subsidised consumer categories, viz., agricultural and BPL category, is significantly lower than the average cost of supply, there is no question of these categories cross-subsidising the subsidising categories due to the levy of uniform FAC charge. The issue of prevalent cross-subsidy has to be resolved by reducing the cross-subsidy in the base tariffs, rather than by increasing the cross-subsidy further by levying FAC charges in proportion to the base tariff applicable to the respective consumer category, as proposed by MSEDCL.

…

38. As regards the contention that proportionate FAC is in vogue in other States in the country, based on data submitted by MSEDCL, it is clear that the same has been adopted only in Jharkhand, since, in Chhattisgarh and Andhra Pradesh, the agricultural and BPL category are only exempted from paying FAC charges and there is no proportionate FAC charge. Thus, there is no clear regulatory precedence in the matter, even though the same would not be binding on MERC.

39. As regards MSEDCL's contention that the FAC charges should be levied in proportion to the respective base tariff since the already low collection efficiency would reduce further, the same is not substantiated by the data submitted by MSEDCL in this regard. MSEDCL's overall collection efficiency in FY 2007-08 has been around 96%, which is not too low. Moreover, if MSEDCL's rationale is to be accepted, then even the base tariff for the subsided categories should not be increased, which will result in further increase in cross-subsidy, which is against the principles specified in the EA 2003. Further, any inefficiency of MSEDCL in collecting its bills from its consumers cannot be a reason either for changing the present dispensation or charging the regularly paying consumer categories.

40. Accordingly, both the prayers of MSEDCL in this Petition are rejected."

The Commission, having thus, already ruled on this matter in Case No. 103 of 2008, does not find any merit in specifying proportionate recovery of FAC from different consumer categories.

(c) Removal of Load Factor Incentive and Time of Day Tariff Rebate

MSEDCL submitted that the Load Factor Incentive incorporated by the Commission in the existing tariff philosophy incentivises higher consumption. However, in an acute shortage scenario, there is a need to restrict the consumption rather than encouraging it, at least till the availability situation improves. Accordingly, MSEDCL requested the Commission to remove the load factor incentive.

As regards the incentive/rebate given for consumption during off peak hours, MSEDCL submitted that the main criteria for introduction of TOD incentive was for effective utilisation of generation and to prevent backing down of generation as well as removal of mismatch in demand supply during peak and off-peak hours. However, in the present situation, load shedding is being undertaken even in non-peak hours and the generation stations are not being backed down due to increase in demand in the non-peak hours.
MSEDCL submitted that the incentive being given for consumption in non-peak hours is not coherent with the present situation, when there is shortage even during non-peak hours.
MSEDCL submitted that the TOD incentive of 85 paise per unit provided for night off-peak consumption between 22:00 hours and 06:00 hours should be done away with for FY 2009-10.

Commission's Ruling

The Commission is of the view that contrary to MSEDCL's submission, the existence of load factor incentive does not incentivise higher consumption per se, rather, it incentivises better utilisation of the contract demand. In order to maximise the load factor incentive, the eligible consumers will have to plan their Contract Demand in such a fashion that they are able to maximise their utilisation of the same, which will eventually result in reducing the burden on MSEDCL's system, as the consumers will shift load to different hours of the day and thus, be able to reduce their Contract Demand. This will also enable MSEDCL to serve a steadier load, rather than a fluctuating one. Also, MSEDCL's contention that consumers will consume more electricity to maximise the load factor incentive appears to be simplistic, as the tariffs are not so low, and the consumers will have to pay for the electricity consumed, which will not be offset by the receipt of the load factor incentive. Hence, the Commission rejects MSEDCL's request to remove the load factor incentive.
As regards MSEDCL's proposal to remove the rebate given for ToD consumption during night off-peak hours, the Commission is of the view that Time of Day tariffs were introduced as a Demand Side Management measure, to flatten the load curve, and over the years, the tariff differential between peak and off-peak hours has been increased, which has achieved good results. The Commission is of the view that most of the load

that could have been shifted to off-peak hours would have already shifted. However, if the off-peak rebate during night off-peak hours is removed, then there is a danger of this load shifting either to day off-peak, where there is no penal tariff, or to evening peak hours, where there is peak tariff, depending on the economics of operation of the particular consumer. It should be appreciated that night operations do involve certain hardships for the consumers, and if sufficient incentive is not given/retained, the load may shift to other hours of the day. Further, the Commission is unable to appreciate MSEDCL's contention that night off-peak consumption should not be encouraged, since load shedding is being undertaken even during these hours. Firstly, the reduction/elimination of load shedding at all hours of the day is the responsibility and duty cast upon MSEDCL. Also, there is no denying that the load during night off-peak hours is the lowest as compared to other time periods of the day, even after the shift in the load on account of the ToD rebates. More importantly, the rates for power purchase during night off-peak hours are much lower than that prevailing for other time slots during the day. Hence, the Commission is of the view that night off-peak consumption should continue to be encouraged, and hence, the ToD rebate during night off-peak hours is retained at existing levels.

(d) Rationalisation of Fixed/Demand Charges

MSEDCL submitted that the Commission had reduced the fixed and demand charges in the APR Order for FY 2007-08. MSEDCL submitted that though it cannot be denied that the above decision to reduce fixed/demand charges has prima facie not resulted in any adverse impact on the revenue income of MSEDCL, the rationale behind the Commission's decision may not hold good for specific consumer categories like HT-I Industries (Express feeder), HT-PWW (Express feeder), etc., since these consumer categories are exempted from load shedding. Similarly, HT Industries (non-express feeder) and HT-PWW (non-express feeder) consumers are subjected to only limited duration of load shedding.

MSEDCL added that the Commission's decision to reduce the fixed/demand charges is contrary to the principles stated by the Commission in its Tariff Order dated May 5, 2000, wherein the Commission had ruled that the fixed charge component of tariff needs to be gradually increased over time. Hence, MSEDCL requested the Commission to increase fixed/demand charges for all the consumer categories at least to the level approved in the MYT Order dated May 18, 2007.

Commission's Ruling

In the previous APR Order for MSEDCL, the Commission had consciously reduced the fixed/demand charges, in response to the several objections submitted by stakeholders in this context. In the APR Order for FY 2007-08 for MSEDCL, the Commission observed as under:

> *"The Commission has reduced the fixed charges/demand charges applicable for different consumer categories, and correspondingly increased the energy charges, so that the bills are more directly linked to the consumption. Economic theory states that the recovery of fixed costs through fixed charges should be increased, so that a reasonable portion of the fixed costs are recovered through the fixed charges. However, the ability of the Licensees to supply reasonably priced power on continuous basis has been eroded due to the stressed demand-supply position in recent times, and hence, the Commission has reduced the fixed charges. This will provide certain relief to the consumers who have lower load factor, as the consumers will be billed more for their actual consumption rather than the load, and the licensees also have an incentive to ensure that continuous 24 hour supply is given to the consumers. As and when sufficient power is available and contracted by the licensees, the fixed charges can again be increased, and energy charges reduced correspondingly."*

As stated in the previous APR Order, the fixed/demand charges were reduced only as a measure to incentivise MSEDCL to contract for the necessary power requirement and ensure continuous supply of power to its consumers. MSEDCL has also admitted in the present APR Petition that there has been no adverse impact on the revenue of MSEDCL due to the reduction of fixed/demand charges. Since, MSEDCL claims that it is striving to contract for the necessary power to meet the demand requirements, there would be no loss to MSEDCL in future also. Hence, the Commission rejects MSEDCL's request to increase the fixed/demand charges. The Commission has retained the fixed/demand charges for all consumer categories at the existing level.

(e) Applicability of BPL Category Tariff

MSEDCL submitted that there being no specific or exhaustive eligibility criteria prescribed by the Commission for eligibility under BPL category, there is a possibility that the benefit of such tariff may get passed on to undeserving consumers. MSEDCL proposed that hence, the Commission may prescribe specific eligibility criteria for applicability of BPL Domestic tariff as under:

1. The BPL Domestic tariff shall be exclusively applicable to individual consumer / person and shall not be applicable to any institution, even though the Domestic tariff is applicable to such institution;
2. Procedure for determining applicability of BPL domestic category may please be specified by the Commission.

Commission's Ruling

In the existing Tariff Schedule approved by the Commission, the applicability of BPL category tariff has been stated as reproduced below:

> ***"BPL: Below Poverty Line***
>
> *Applicability*
>
> *Residential consumers who have a sanctioned load of upto and less than 0.1 kW, and who have consumed less than 360 units per annum in the previous financial year. The applicability of BPL category will have to be assessed at the end of each financial year. In case any BPL consumer has consumed more than 360 units in the previous financial year, then the consumer will henceforth, be considered under the LT-I residential category. Once a consumer is classified under the LT-I category, then he cannot be classified under BPL category.*
>
> *The categorisation of such BPL consumers will be reassessed at the end of the financial year, on a pro-rata basis. Similarly, the classification of BPL consumers who have been added during the previous year would be assessed on a pro-rata basis, i.e., 30 units per month.*
>
> *All the new consumers subsequently added in any month with consumption between 1 to 30 units (on pro rata basis 1 unit/day) in the first billing month will be considered in BPL Category."*

In this context, the Commission is of the view that MSEDCL's proposal that the BPL tariff shall be applicable exclusively to individual consumers and shall not be applicable to any institution, even though the Domestic tariff may be applicable to such institution, has merit, since the objective of the BPL category is to supply electricity at subsidised rates to the needy persons in society, and institutions should not be covered under BPL category, even though it is doubtful as to whether there are any institutions, which have a sanctioned load of upto and less than 0.1 kW, i.e., 100 Watts. **The Commission has accordingly made this change in the applicability of BPL category tariff**.

(f) Related to Consumer Categorisation

i. **Retain the tariff f**or LT BPL Domestic consumers, LT/HT Agricultural Consumers and LT/HT Public Water Works (PWW) at current level.

Commission's Ruling

The Commission's philosophy of cross-subsidy reduction and determination of category-wise tariffs are detailed subsequently in this Section.

ii. **Introduction of a separate category** covering the consumers of LT Flour Mills, LT Powerloom and LT cold storage (Agriculture produce) and the tariff fixed such that it is lower than the first tariff slab of LT-V Industrial. In its Supplementary Submission, MSEDCL submitted additional justification for its proposals as under:

<u>Power loom</u>: Power loom industry has always been looked at as an employment generation activity for the lower strata of society, and the Government has also been providing financial support, since it serves the larger interest of employment generation. Also, the conventional power loom activity still uses relatively less advanced machines compared to high tech industries in the same sector, hence, it is necessary to offer a level playing field to the power loom sector and hence, a separate category has been proposed for this sector.

<u>Flour Mills</u>: Flour mills may not be treated as an industry considering the nature of activity. Further, flour mills are a necessity of the society and the tariff will

also have an adverse impact on the lower strata of society. Hence, a separate category is necessary to cover up to 10 HP

LT Cold Storage: Consumers utilising pre-cooling and cold storage facilities to be provided supply under LT IV agricultural category in a manner similar to HT V agricultural category.

Commission's Ruling

MSEDCL had made a similar prayer in the previous APR Petition, and the Commission had rejected MSEDCL's request at that time, and had ruled as under:

> *"As regards MSEDCL's proposal to introduce two new sub-categories within LT V industrial category, viz., (a) Power looms, and (b) Flour mills below 10 HP sanctioned load, and levy a lower tariff for these two new sub-categories, the Commission has not created these two sub-categories, and has retained them under the LT V industrial category, as the Commission does not find merit in the proposed categorisation. The Commission has been rationalising the tariff categories over the years, and in fact, in an earlier Tariff Order, the existing separate categorisation for power looms was merged with the LT industrial category by the Commission. The Commission has, however, ensured that there is no tariff increase for the sub-category 0 to 20 kW, thereby protecting the smaller consumers from a tariff shock."*

As seen from the above, the Commission has already ruled on this prayer of MSEDCL. The Commission is of the view that creating additional sub-categories for specific industrial segments like power loom and flour mills is counter-productive to the Commission's overall philosophy of rationalisation of consumer categories, moreso, when the Commission has taken a conscious decision in the past to merge these categories into a single industrial category. However, as regards MSEDCL's proposal that consumers utilising pre-cooling and cold storage facilities should be provided supply under LT IV agricultural category in a manner similar to HT V agricultural category, the Commission is of the view that there is merit in the suggestion, since there should be some uniformity of applicability between HT and LT categories. Hence, **the Commission accepts this suggestion of MSEDCL**.

iii. Consumers on Express Feeders are proposed to be charged an **express feeder charge** which shall be calculated as 15% energy charge of the respective category for any of the HT tariff categories except HT III Railways, HT Agriculture (pumping), Govt (fully owned only) Hospitals and educational institutions and HT PWW (pumping). In its Supplementary Submission, MSEDCL submitted additional justification for its proposals as under:

The additional express feeder charge has been proposed since consumers on express feeders are getting continuous supply whereas consumers in the same category who are connected to non-express feeders are having a staggering day, which actually amounts to approximately 15% less energy input. Further, MSEDCL has proposed to exempt HT PWW on express feeders from the levy of the additional express feeder charge, since, PWW are essential services and affects larger public interest.

Commission's Ruling

The wording of this proposal by MSEDCL has created confusion in the minds of the consumers, and there were several objections to this proposal of MSEDCL. In fact, in case of HT Industrial consumers, MSEDCL has already proposed 20% differential in energy charges between consumers connected through express feeders and those connected through non-express feeders. Hence, there is no proposal for levy of additional express feeder charge in case of HT Industrial consumers. However, MSEDCL has proposed this additional charge for other HT consumers, with certain exceptions. The Commission's views in this regard are as under:

- MSEDCL's contention that consumers connected on non-express feeders having one-day staggering are effectively getting around 15% lower energy input is arithmetically incorrect, as one day staggering of 16 hours per week, amounts to load shedding of 9.5% of maximum available hours

- The Commission finds merit in MSEDCL's rationale that consumers who are getting preference in supply of electricity, i.e., 24 x 7 supply, when other consumers are being subjected either to daily load shedding or one-day staggered load shedding, should be charged a higher rate as compared to the other consumers. However, consumers connected through express feeders have incurred additional capital expenditure to avail this facility and the extent of premium charged for this preferential supply has to keep this aspect in mind.
- Internationally, there is a concept of 'interruptible tariff' and 'non-interruptible tariff', wherein, consumers opting for 'interruptible tariff' are entitled to a flat discount on their entire consumption, in exchange for offering their load for load shedding for a certain ceiling hours every month (with advance notice), in case the grid security situation requires the Utility to shed load. However, the situation in Maharashtra is different in that, load shedding has become a common phenomenon, and it is not that the load will be shed only on call.
- Keeping all these factors in mind, the Commission has determined the tariffs of HT industrial category in such a manner that HT I consumers connected on express feeders will be required to pay around 7% higher than HT I consumers connected on non-express feeders.
- The Commission has not introduced the concept of higher tariff for other HT consumers connected on express feeders, since MSEDCL has not submitted any data on the number of other HT consumers connected through express feeders, possible additional revenue on account of introduction of the higher tariffs, etc. In case, MSEDCL is desirous of introducing such a tariff differential for other HT consumer categories, then it should submit all the relevant data, including the revenue impact of such a move, at the time of the next tariff filing.

iv. The **IT and IT enabled industry** is classified by the Industry Department. It is proposed to classify the mobile towers and the commercial broadcasting towers and all other similar activities under commercial category.

Commission's Ruling

MSEDCL has not elaborated on the rationale for this specific proposal. The Commission had consciously included IT and IT enabled Services (IT & ITeS) under industrial category (HT and LT as applicable) in the Tariff Order for the erstwhile MSEB in 2004. Since then, the IT & ITeS category continues to be charged under industrial tariffs. In the existing Tariff Schedule of MSEDCL as well as the approved Tariff Schedule for the distribution licensees in Mumbai issued in June 2009, the Commission has included IT & ITeS category under industrial, as reproduced below:

"5. LT V: LT- Industrial

Applicability

Applicable for industrial use at LT voltage, excluding Agricultural Pumping Loads. This Tariff shall also be applicable to IT Industry & IT enabled services (as defined in the Government of Maharashtra policy)."

"1. HT I : HT- Industry

Applicability

This category includes consumers taking 3-phase electricity supply at High Voltage for industrial purpose. This Tariff shall also be applicable to IT Industry & IT enabled services (as defined in the Government of Maharashtra policy)."

In view of the above, **the Commission rules that IT & ITeS will be charged at industrial rates (HT and LT rates, as applicable),** without getting into the details of whether mobile towers and commercial broadcasting towers and all other similar activities are covered under the Government of Maharashtra Policy on IT & ITeS.

v. Consumers engaged in **Hi-Tech Agriculture activity** shall also be eligible for tariff applicable for agriculture pumping load, provided the power supply is exclusively utilized by such Hi-Tech Agriculture Consumers for purpose directly concerned with crop cultivation process and further provided that the power is not utilized for any engineering or industrial process.

Commission's Ruling

The Commission finds merit in MSEDCL's suggestion that consumers engaged in hi-tech agricultural activity should be eligible to be charged at agricultural tariffs, since this is in line with the Commission's philosophy in this regard as outlined in earlier Tariff Orders. MSEDCL's suggestion that the electricity supply should not be utilised for any engineering or industrial purposes is also logical, since if any industrial activity is being undertaken, then the industrial tariff would be applicable.

5.4 Commission's Tariff Philosophy

The Commission has been deeply concerned for the past few years, about the increasing tariffs to consumers of Maharashtra. While previously, the Commission has attempted to rationalise the categories and slabs, this year, the Commission has been able to reduce the tariffs in general, while at the same tine, reducing the cross-subsidy over that prevailing in the previous year.

As discussed in Section 5.2 of this Order, the Commission has determined the consolidated revenue gap for FY 2009-10 as Rs. 1099 Crore, thus, requiring an effective average tariff increase of around 4.2% vis-à-vis the revenue from existing tariffs in FY 2009-10 after considering the prevailing FAC of 25 paise/kWh.

The Commission has determined the tariffs in line with the tariff philosophy adopted by it in the past, and the provisions of law. The tariffs and tariff categorisation have been determined so that the cross-subsidy is reduced without subjecting any consumer category to a tariff shock, and also to consolidate the movement towards uniform tariff categorisation throughout the State of Maharashtra.

<u>Rationalisation of Tariff Categories</u>

As enunciated by the Commission in the previous APR Order, the Commission is of the view that it is not feasible to have uniform tariffs across different licensees, due to inherent differences, such as revenue requirement, consumer mix, consumption mix, LT:HT ratio, etc. It is also, not appropriate to compare category-wise tariffs across different licensees for the same reasons. However, in the APR Order for FY 2007-08, the Commission had initiated the move to gradually rationalise and make uniform the tariff categorisation and applicability of tariffs for licensees in the State, and these efforts have been continued in this Order also. The differences exist because of historical reasons and differences in management policies and approach across licensees. There will of course, be some differences, on account of certain consumer categories being present only in certain licence areas, such as agricultural category, power looms, etc., which will exist only in certain licence areas.

At the same time, the Commission has attempted to ensure that the changes due to rationalisation are such that the impact on consumer categories is minimised, to the extent possible, and also, that the modifications are undertaken in small incremental steps, rather than making wholesale changes to the tariff structure. Also, the fact that the consumers may not be aware of the modifications proposed to be undertaken by the Commission has also been kept in mind, in view of certain Judgments given by the ATE in this regard, though the ATE has also ruled that the Commission has all the powers to determine the tariff categories and category-wise tariffs, irrespective of whether the distribution licensee has specifically asked for the same in its Petition, which has been published for public comments. Hence, the categorisation has by and large, been retained in accordance with the prevailing consumer categories, save for any rationalisation required on account of differences prevailing in different licence areas, and in case the licensee has specifically asked for any category, the same has also been considered in accordance with the provisions of Section 62(3) of the EA 2003.

While undertaking the rationalisation of tariff categories, the Commission has borne in mind the provisions of Section 62(3) of the Electricity Act, 2003, which stipulates as under:

> *"The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption*

of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required."

It should be noted that it is not possible to apply all the above specified criteria at the same time, for designing the tariff categories; else, with many permutations and combinations, there will be too many categories. Perhaps, that is also not the intention behind the provision, which merely enables the Regulators to work within the criteria.

Thus, it will be seen from the elucidation given below, as to how different criteria have been used to categorise different types of consumers:

- The 'load factor' and 'power factor' criteria have been used to provide rebates and disincentives, such as load factor incentive for load factor above certain specified levels, and power factor rebates and disincentives are provided to consumers who are able to maintain their power factor above specified levels.
- The consumer categories are broadly classified under High Tension (HT) and Low Tension (LT) categories, in accordance with the 'voltage' criteria under Section 62(3) reproduced above.
- The 'time of supply' criteria has been used to specify time of day (ToD) tariffs, so that the consumers are incentivised to shift their consumption to off-peak periods and thus, reduce the burden on the system during peak hours.
- The 'nature' of supply criteria has been used to specify differential tariff for continuous (non-interruptible) and non-continuous supply (interruptible)
- The criteria of 'purpose' of supply has been used extensively to differentiate between consumer categories, with categories such as residential, non-residential/commercial purposes, industrial purpose, agricultural purpose, street lighting purpose, etc.

In this context, quite a few consumers have been representing before the Commission during and after the Public Hearings, stating that they are not undertaking any 'commercial' activity or activities for making 'profit' within their premises, and hence, they should not be classified under the 'commercial' category. It is clarified that the 'commercial' category actually refers to all 'non-residential, non-industrial' purpose, or which has not been classified under any other specific category. For instance, all office establishments (whether Government or private), hospitals, educational institutions, airports, bus-stands, multiplexes, shopping malls, small and big stores, automobile showrooms, etc., are all covered under this categorisation. Clearly, they cannot be termed as residential or industrial. In order to bring clarity in this regard, the Commission has renamed this category as 'non-residential or commercial' in this Order.

A similar impression is conveyed as regards the 'Industry' categorisation, with the Commission receiving several representations during and after the Public Hearings, from the hotel industry, leisure and travel industry, etc., stating that they have also been classified as 'industry' for the purpose of taxation and/or other benefits being extended by the Central Government or State Government, and hence, they should also be classified as 'industry' for the purpose of tariff determination. In this regard, it is clarified that classification under Industry for tax purposes and other purposes by the Central or State Government shall apply to matters within their jurisdiction and have no bearing on the tariffs determined by the Commission under the EA 2003, and the import of the categorisation under Industry under other specific laws cannot be applied to seek relief under other statutes. Broadly, the categorisation of 'Industry' is applicable to such activities, which entail 'manufacture'.

While appreciating the anxiety of different classes of consumers to reduce their payments on account of use of electricity, the reasonable costs incurred by the Utilities have to be met, and irrespective of the number of consumer categories or the sub-classification considered in accordance with the provisions of Section 62(3) of the EA 2003, the cross-subsidies have to be reduced gradually and the tariff differential between categories cannot be very significant in the long-run.

The Commission appreciates the concern expressed by the consumers engaged in construction activity that the nature of their connection is by no means 'temporary' and hence, it is inappropriate to classify construction activity under temporary. The Commission agrees with this rationale and rules that from hereon, temporary supply – HT or LT as applicable – will not include any construction activity, and will be limited to electricity used on temporary basis for any decorative lighting for exhibitions, circus, film shooting, marriages, etc., and the time period for consideration under temporary category will be one year. Further, all Construction activity, on infrastructure projects, buildings, hill station, etc., will be classified under 'Commercial Category' and be charged at HT Commercial or LT Commercial, as applicable. An illustrative Table, giving the applicability of tariff categories for various combinations of activities is given in the Table below.

After the issue of the APR Order for FY 2007-08, wherein the category-wise tariffs for FY 2008-09 were determined, MSEDCL had filed a Clarificatory Petition in Case No. 44 of 2008. In its Clarificatory Petition, MSEDCL inter-alia sought clarification on the applicability of temporary tariff for residential consumers, who are renovating their existing premises. In this regard, the Commission clarified as under:

> *"The Commission clarifies that the above stated applicability for LT VII – Temporary Connections was not intended to be applied to LT consumers who are renovating or undertaking minor construction activity at their existing premises. The Commission hence, clarifies that any LT consumer, having consumption upto 500 units per month, and who undertakes construction or renovation activity in his existing premises, does not require any separate temporary connection and this consumer should be billed at his existing tariff rate."*

In furtherance of the above clarification, certain situations have been envisaged, which have been described below, along with the tariff category to be applicable in each case:

Sl.	Activity	Need for new connection for construction activity	Tariff category applicable*	
			Existing Connection	New Connection
1	Residential consumer with consumption < 500 units, undertaking renovation/minor construction activity at existing premises	No	Residential	Not Applicable
2	Above, with consumption > 500 units	Yes	Residential	Commercial
3	Any kind of construction work – Infrastructure Projects, Buildings, Hill Station, etc.	No, since basic activity is construction	Commercial	
4	Temporary supply – less than 1 year	Not Applicable	Temporary	

Note: * - In above illustrations, the tariff category would be HT or LT as applicable

As regards applicability of tariff for consumers taking supply at HT voltage for residential purposes, in response to a clarification sought by MSEDCL, the Commission had clarified that individual residential consumers taking supply at HT voltage (large bungalows) should be charged at LT residential rates, since there was no HT residential tariff category. However, it appears that MSEDCL has extended this clarification to include those HT residential consumers, such as housing colonies of industries or educational institutions, who are taking supply at single point for further sub-distribution within their residential complex. As a result, due to the higher slab tariff for consumption above 500 units for LT residential category, the effective tariffs for such consumers are working out very high. It is clarified that 'HT VI Group Housing Society' tariff is also applicable for such Housing Colonies of industrial consumers or educational institutions, taking supply at HT with separate sub-meter, irrespective of whether metering is at HT side or LT side of the transformer so long as the supply is at HT voltage.

Similarly, for commercial load of industrial consumers or educational institutions taking supply at HT voltage with separate sub-meter, the HT II Commercial category tariff will be applicable, irrespective of whether metering is at HT side or LT side of the transformer. The HT VI Commercial category tariff will not be applicable in such cases, since the same is intended to be only an interim solution, since all such commercial category consumers taking supply at single point have to be converted either to franchisee or individual connections, in accordance with the detailed rationale given by the Commission in previous Tariff Orders.

The Commission has included electricity used for the purpose of Sewage Treatment under Public Water Works since these are offered by the same entity, viz., Municipal Corporation or Council, etc.

As regards increase in agricultural tariffs, the Commission is of the view that the tariffs will have to be increased gradually, in order to reduce the cross-subsidy; however, the tariffs have to be linked to the quality and reliability of supply being given to the agricultural consumers. There has been only marginal improvement in the quantum of electricity being supplied to agricultural consumers, since agricultural consumers continue to receive supply only for around 8 to 10 hours daily. Under such circumstances, the Commission is of the view that it may not be appropriate to increase the agricultural tariffs at this stage any further, and hence, the tariffs have been retained at the existing level, after merging the FAC of 25 paise/kWh, as proposed by MSEDCL.

In addition, the Commission has also made the following changes:

- 'HT VIII: HT Temporary Supply' has been created
- 'LT II: Non-domestic' has been renamed as 'LT II: Non-residential or Commercial'
- The applicability for different consumer categories has been addressed in the approved Tariff Schedule, which is annexed as a part of this Order (**Annexure II).**

Rationalisation of Tariff Components

The Commission has continued to determine the tariffs such that there is an in-built incentive to consumers to reduce their consumption, as the impact on the bills is designed to increase as the consumption increases, on account of the higher telescopic tariffs applicable for the higher consumption slabs, while at the same time ensuring that even the consumers falling in the higher consumption slabs are charged lower for the consumption corresponding to the lower consumption slab.

The Commission has retained the fixed charges/demand charges applicable for different consumer categories at the previous year's level.

The tariff differential between HT Industry and HT Railways has been retained at around 5 paise/kWh, with the objective of eventually bringing them under a single category.

The Commission has generally ensured that the HT tariffs are lower than the LT tariffs, as the cost of supply is lower than the cost of supply at lower voltages, due to the lower losses at higher voltages, and the lower network related costs since the electricity does not have to stepped down to lower voltages. However, there could be one or two exceptions, where the tariff differential in the existing categories is very high, and cannot be reduced overnight.

As regards the tariff applicable to MPECS, the Commission has elaborated its view point in the previous APR Order for MSEDCL. There has been no change in MPECS's situation or consumer mix. Hence, it is not correct to state that MPECS is being cross-subsidised by other consumer categories, since MPECS is also a distribution licensee and has got a consumer mix, which does not give it any significant cross-subsidy. Also, the issue of tariff applicable for MPECS is currently being agitated at various levels including the Honourable Supreme Court. Hence, the Commission has increased the tariffs by around 20 paise/kWh, in order to reduce the cross-subsidy slightly.

The Time of Day (ToD) tariffs will be applicable compulsorily to HT I, HT II, and HT IV categories among HT categories, and LT II (B), LT II (C), LT III, and LT V (B) category consumers having TOD meters, as well as optionally available to LT – II (A) and LT V (A) category consumers, who have TOD meters. The TOD tariffs have been retained at the existing levels as under:

- Five time slots, viz., (a) 2200 to 0600 hours, (b) 0600 to 0900 hours, (c) 0900 to 1200 hours, (d) 1200 to 1800 hours, and (e) 1800 to 2200 hours.
- Additional peak hour tariff will be payable for consumption during the peak hours in the State, viz., 0900 to 1200 hours – morning peak, and 1800 to 2200 hours – evening peak, in the following manner:
    - 0900 to 1200 hours : Additional 0.80 Rs/kWh
    - 1800 to 2200 hours : Additional 1.10 Rs/kWh
- For consumption during night off-peak hours, viz., 2200 to 0600 hours, a rebate of 0.85 Rs/kWh will be available
- Neither additional tariff nor rebate will be applicable for consumption during 0600 to 0900 hours and 1200 to 1800 hours

Additional demand charges of Rs 20 per kVA per month would be chargeable for the stand by component, for CPPs, only if the actual demand recorded exceeds the Contract Demand.

The **Billing Demand definition** has been retained at the existing levels, i.e.,

Monthly Billing Demand will be the higher of the following:

(a) Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;

(b) 75% of the highest billing demand/Contract Demand, whichever is lower, recorded during the preceding eleven months;

(c) 50% of the Contract Demand.

<u>Fuel Adjustment Charges</u>

The existing Fuel Adjustment Cost (FAC) Charge has been brought to zero, on account of the adoption of the existing fuel costs for projection of the fuel expenses. In case of any variation in the fuel prices with respect to these levels, MSEDCL will be able to pass on the corresponding increase to the consumers through the existing FAC mechanism, subject to the stipulated ceiling of 10% of average energy charge, which works out to 37 paise/kWh. The FAC will be charged on a monthly basis, and the details of the computation and recovery from the same will have to be submitted to the Commission for post-facto approval, on a quarterly basis, except for the first month after the issue of the Order, where the FAC submission will have to be made for prior approval.

<u>Average Cost of Supply, Tariffs proposed by MSEDCL, and tariffs approved by the Commission</u>

The computation of average cost of supply (CoS) is given below:

Table: Average Cost of Supply for FY 2009-10

Sl.	Particulars	Amount
1	Total Revenue Requirement (Rs. Crore)	27257
2	Total Sales (MU)	62696
3	**Average Cost of Supply (Rs/kWh)**	**4.35**

The comparison of the existing tariffs, tariffs proposed by MSEDCL and tariffs approved by the Commission as well as the percentage increase for each consumer category, are given in the Table below:

Category	Average Cost of Supply (Rs./unit)	Average Billing Rate (Rs./kWh)				
		Existing Tariff	Tariff Proposed by MSEDCL		Revised Tariff	
			ABR	% Increase	ABR	% Increase
LT Category						
LT I - Domestic	4.35	4.11	5.44	32%	4.17	1%
LT II - Non-Domestic or Commercial		6.05	8.86	46%	6.44	6%
(a) Upto 20 kW		5.51	7.95	44%	5.91	7%
(b) > 20 kW & <=50 kW		8.70	11.63	34%	9.04	4%
(c) Above 50 kW		10.86	13.59	25%	11.06	2%
LT III - Public Water Works		2.19	2.23	2%	2.27	4%

Category	Average Cost of Supply (Rs./unit)	Average Billing Rate (Rs./kWh)				
		Existing Tariff	Tariff Proposed by MSEDCL		Revised Tariff	
			ABR	% Increase	ABR	% Increase
LT IV - Agriculture		1.81	1.79	-1%	1.81	0%
LT V - Industrial		4.28	5.94	39%	4.34	1%
LT VI - Street Lighting		3.06	4.18	37%	3.20	4%
LT V III - Temporary Others		12.63	16.96	34%	11.14	-12%
HT Category						
HT I - Industry (Express Feeder)	4.35	4.99	7.17	44%	5.40	8%
HT I - Industry (Non-Express Feeder)		4.74	6.48	37%	5.06	7%
HT I - Seasonal Industry		6.06	9.67	60%	6.41	6%
HT II - Commercial		8.00	10.54	32%	7.76	-3%
HT III - Railways		5.04	6.52	29%	5.35	6%
HT IV - Public Water Works		3.64	3.43	-6%	3.73	2%
HT V - Agriculture		2.08	2.08	0%	2.15	3%
HT VI - Bulk Supply - Residential		3.67	8.20	123%	3.96	8%
HT VI - Bulk Supply - Commercial		5.76	11.07	92%	6.16	7%
HT VII - MPECS		2.55	2.55	0%	2.76	8%

The prevailing cross-subsidy and the reduction in cross-subsidy considered by the Commission are given in the Table below:

Category	Average Cost of Supply (Rs./unit)	Ratio of Average Billing Rate to Average Cost of Supply (%)		
		APR Order for FY08	Existing Tariff to current ACOS	Revised Tariff to current ACOS
LT Category				
LT I - Domestic	4.35	104%	95%	96%
LT II - Non-Domestic or Commercial		173%	139%	148%
LT III - Public Water Works		47%	50%	52%
LT IV - Agriculture		39%	42%	42%
LT V - Industrial		114%	98%	100%

Category	Average Cost of Supply (Rs./unit)	Ratio of Average Billing Rate to Average Cost of Supply (%)		
		APR Order for FY08	Existing Tariff to current ACOS	Revised Tariff to current ACOS
LT VI - Street Lighting		77%	70%	74%
LT V III - Temporary Others		335%	291%	256%
HT Category				
HT I - Industry (Express Feeder)		127%	115%	124%
HT I - Industry (Non-Express Feeder)		123%	109%	116%
HT I - Seasonal Industry		155%	139%	147%
HT II - Commercial			184%	179%
HT III - Railways	4.35	130%	116%	123%
HT IV - Public Water Works		94%	84%	86%
HT V - Agriculture		49%	48%	49%
HT VI - Bulk Supply - Residential		91%	84%	91%
HT VI - Bulk Supply - Commercial		150%	132%	142%
HT VII - MPECS		62%	59%	63%

In the above Tables,

(a) 'Existing Tariff' refers to the tariff approved by the Commission in the APR Order dated June 20, 2008

(b) 'Revised Tariff' refers to the tariff approved by the Commission in the present APR Order

(c) Ratio of Average Billing Rate (ABR) to Average Cost of Supply (ACOS)

i) 'APR Order for FY08' refers to the ratio of ABR to ACOS as envisaged in the APR Order for FY 2007-08

ii) 'Existing Tariff to current ACOS' refers to the ratio of ABR approved in the APR Order for FY 2007-08 to the ACOS approved in the present APR Order, i.e., Rs. 4.35 per kWh

iii) 'Revised Tariff to current ACOS' refers to the ratio of ABR approved in this APR Order for FY 2008-09 to the ACOS approved in the present APR Order, i.e., Rs. 4.35 per kWh

The above Tables clearly shows that the Commission has reduced the cross-subsidy levels for most consumer categories, since the reference tariff and cross-subsidy levels have to be considered based on the APR Order for FY 2007-08, and will strive to achieve the target of ± 20% of ACOS specified by the Tariff Policy to be achieved by the year 2010-11. At the same time, the Commission has ensured that no tariff category is subjected to tariff shock.

While the tariffs have been determined such that the revenue gap considered for the year is met entirely through the revision in tariffs, it is possible that the actual revenue earned by MSEDCL may be higher or lower than that considered by the Commission, on account of the re-categorisation and creation of new consumer categories. The revenue shortfall/surplus if any, will be trued up at the time of provisional truing up for FY 2009-10.

5.5 Revised Tariffs with effect from August 1, 2009

Summary of LT Tariffs effective from August 1, 2009

Sl.	Consumer category & Consumption Slab	Tariffs	
		Fixed/ Demand Charge	Energy Charge (Rs/kWh)
1	**LT I - Residential (BPL)**	Rs. 3 per month	0.66
	LT I – Residential		
	0-100 units	Single Phase: Rs. 30 per month Three Phase: Rs. 100 per month[$$]	2.35
	101-300 units		4.25
	301 to 500 units		5.85
	Above 500 units (balance units)		6.85
2	**LT II - LT Non-residential or Commercial**		
(A)	0-20 kW		
	0 – 200 units per month	Rs. 150 per month	4.20
	Above 200 units per month (only balance consumption)	Rs. 150 per month	5.90
(B)	> 20 kW and ≤ 50 kW	Rs. 150 per kVA per month	6.20
(C)	> 50 kW		8.10
3	**LT III – Public Water**		

Sl.	Consumer category & Consumption Slab	Tariffs	
		Fixed/ Demand Charge	Energy Charge (Rs/kWh)
	Works & Sewage Treatment Plants		
(A)	0-20 kW	Rs. 40 per kVA per month	1.60
(B)	> 20 kW and ≤ 40 kW	Rs. 50 per kVA per month	2.10
(C)	> 40 kW and < 50 kW	Rs. 70 per kVA per month	2.90
4	**LT IV - Agriculture**		
	Un-metered Tariff		
	Category 1 Zones*	Rs. 276 per kW per month- (Rs 206 per HP per month)	0.00
	Category 2 Zones#	Rs 237 per kW per month- (Rs. 176 per HP per month)	0.00
	Metered Tariff (incl Poultry Farms)	Rs. 15 per HP per month	1.37
5	**LT V -** LT Industry		
(A)	0-20 kW	Rs. 150 per month	3.50
(B)	Above 20 kW	Rs. 100 per kVA per month for 65% of maximum demand or 40% of Contract Demand, whichever is higher	4.75
6	**LT VI – Streetlights**		
(A)	Grampanchayat, A, B, & C Class Municipal Council	Rs. 30 per kW per month	2.80
(B)	Municipal Corporation Areas		3.40
7	**LT VII – Temporary Supply**		
(A)	TSR – Temporary Supply Religious	Rs 200 per connection per month	2.40
(B)	TSO – Temporary Supply Others	Rs 250 per connection per month	11.00
8	**LT VIII – Advertisement & Hoardings**	Rs 400 per connection per month	13.00
9	**LT IX – Crematoriums and Burial Grounds**	Rs 200 per connection per month	2.40

Sl.	Consumer category & Consumption Slab	Tariffs	
		Fixed/ Demand Charge	Energy Charge (Rs/kWh)
	TOD Tariffs (in addition to above base tariffs) – compulsory for LT II (B) and (C), LT III, LT V (B), and optional for LT II (A) and LT V (A) category		
	0600 hours to 0900 hours		0.00
	0900 hours to 1200 hours		0.80
	1200 hours to 1800 hours		0.00
	1800 hours to 2200 hours		1.10
	2200 hours to 0600 hours		-0.85

***Category 1 Zones (with consumption norm above 1318 hours/HP/year)**					
1	Bhandup (U)	2	Pune	3	Nashik

#Category 2 Zones (with consumption norm below 1318 hours/HP/year)					
1	Amravati	2	Aurangabad	3	Kalyan
4	Konkan	5	Kolhapur	6	Latur
7	Nagpur(U)	8	Nagpur		

Notes:

1. Fuel Adjustment Cost (FAC) will be applicable to all consumers and will be charged over the above tariffs, on the basis of the FAC formula prescribed by the Commission, and computed on a monthly basis.
2. $$: Additional Fixed Charge of Rs. 100 per 10 kW load or part thereof above 10 kW load shall be payable.
3. Billing Demand for all LT categories where MD based tariff is applicable:

   Monthly Billing Demand will be the higher of the following:

   (A. 65% of the Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
   (B. 40% of the Contract Demand

Summary of HT Tariffs effective from August 1, 2009

Sl.	Consumer category & Consumption Slab	Tariffs	
		Fixed/ Demand Charge	Energy Charge (Rs/kWh)
1	**HT I – Industry**		
(A)	Express Feeders	Rs 150 per kVA per month	5.05
(B)	Non-express Feeders		4.60
(C)	Seasonal Industry		5.70
2	**HT II – Commercial**	Rs 150 per kVA per month	7.15
3	**HT III – Railways**		5.35
4	**HT IV – Public Water Works & Sewage Treatment Plants**		
(A)	Express Feeders	Rs 150 per kVA per month	3.50
(B)	Non-express Feeders		3.40
5	**HT V - Agriculture**	Rs. 25 per kVA per month	1.95
6	**HT VI**		
(A)	Group Housing Society	Rs 125 per kVA per month	3.60
(B)	Commercial Complex		6.00
7	**HT VII – Mula Pravara Electric Co-op Society**	Rs 100 per kVA per month	2.50
8	**HT VIII – Temporary Supply**	Rs 200 per connection per month	10.00
	TOD Tariffs (in addition to above base tariffs) for HT I, HT II and HT IV categories		
	0600 hours to 0900 hours		0.00
	0900 hours to 1200 hours		0.80
	1200 hours to 1800 hours		0.00
	1800 hours to 2200 hours		1.10
	2200 hours to 0600 hours		-0.85

Notes:

1. HT V category includes HT Lift Irrigation Schemes irrespective of ownership.
2. FAC will be determined every month based on the FAC Formula approved by the Commission
3. <u>Billing Demand for all HT categories (except HT II seasonal category)</u>

   Monthly Billing Demand will be the higher of the following:

   i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

   ii. 75% of the highest billing demand recorded during preceding eleven months

   iii. 50% of the Contract Demand.
4. <u>Billing Demand for HT Seasonal Category (HT II)</u>

   <u>During Declared Season</u> Monthly Billing Demand will be the higher of the following:

   i. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

   ii. 75% of the Contract Demand

   iii. 50 kVA.

   <u>During Declared Off-season</u>

   Monthly Billing Demand will be the following:

   i) Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
5. HT Industrial consumers having captive generation facilities synchronized with the grid will pay additional demand charges of Rs. 20 per kVA per month only for the standby contract demand component.

The detailed computation of category-wise revenue with revised tariffs has been given as **Annexure I** to this Order.

The approved Tariff Schedule has been given as **Annexure II** to this Order

5.6 Wheeling Charges and Loss Compensation

In the APR Order for MSEDCL, the Commission approved wheeling charges and wheeling losses for FY 2008-09 as under:

Voltage Level	Approved for FY 2008-09	
	Wheeling Charge (Rs/kW/month)	Wheeling Loss (%)
33 kV	20	6%
22 kV / 11 kV	110	9%
LT level	191	14%

In the MYT Order for MSEDCL, the Commission observed that separate accounting of network related costs and supply related costs is essential for un-bundling of cost and tariff components and is a pre-requisite for appropriate determination of wheeling charges. Also, network costs needs to be further segregated in terms of voltage level (33 kV, 22 kV/11 kV, and LT). The Commission had directed MSEDCL to submit voltage-wise segregated wire cost component of ARR during Annual Performance Review. The Commission had also directed MSEDCL to maintain the accounts for expenses incurred on wires business and supply business separately, and submit the same during Annual Performance Review for FY 2007-08 and FY 2008-09.

However, MSEDCL has not maintained network related and supply related costs separately. MSEDCL, under its APR Petition, submitted that it has applied the same ratio of Network and Supply cost segregation as approved by the Commission in its MYT Order dated May 18, 2007 to arrive at Network related costs. MSEDCL further submitted that MSEDCL does not maintain audited accounts for voltage-wise assets. However, based on engineering estimate of its assets, MSEDCL has arrived at the voltage-wise segregation of GFA and costs. The value of assets considered here is as per the opening gross block at the beginning of the year. Opening GFA of MSEDCL for FY 2008-09 has been segregated in terms of various voltage levels as under: 33 kV – 14%, 22 kV/11 kV – 56%, and LT level – 30%.

Based on contract demand at various voltage levels, MSEDCL projected the wheeling charges and wheeling losses as under:

Item Description	MSEDCL Projection for FY 2009-10	
	Wheeling Charge (Rs/kW/month)	Wheeling Loss (%)
33 kV	152	6%
22 kV / 11 kV	202	9%
LT level	224	22.2%

In the absence of accounting information for wire related costs, the Commission has considered allocation of various cost components of Aggregate Revenue Requirement (ARR) between network related costs and supply related costs, in line with the principles outlined under MYT Order for MSEDCL. Accordingly, approved network related ARR of MSEDCL for FY 2009-10 amounts to Rs 2141 Crore. The Commission directs MSEDCL to maintain the accounts for expenses incurred on wires business and supply business separately, and submit the same during Annual Performance Review for FY 2009-10.

The Commission has determined the wheeling charges for 33 kV, 22 kV/11 kV and LT level, based on the allocation of asset base and considering sales at respective voltage levels. The ARR has been segregated between wheeling business and retail supply business based on the submissions made by MSEDCL. Consumers connected directly to the transmission network would not be required to pay the wheeling charges.

The total ARR of the Wires business as computed above has been apportioned to various voltage levels (i.e., 33 kV, 22kV/11 kV and LT) in the ratio of sales at respective voltage levels, and the wire costs at higher voltage levels has been further apportioned to lower voltage levels, since the HT system is also being used for supply to the LT consumers. Thus, the wheeling charge applicable to consumers connected at the various voltage levels on the distribution network during FY 2009-10 is summarized under following table. Further, so far the Commission has been denominating wheeling charges in Rs/kW/month terms in line with the Tariff Policy recommendations, so as to achieve uniformity in transmission pricing and wheeling charges. However, the Commission is of the view that in order to simplify the operationalisation of open access transactions, it is beneficial to denominate the wheeling charges in terms of energy units (i.e., Rs/kWh).

The denomination of wheeling charges (in Rs/kWh) has also assumed significance as open access transactions through 'power exchange' have been enabled and more open access transactions are likely to take place at LT level with phasing criteria brought down to 1 MVA. Recently, the Commission has also stipulated wheeling charges in respect of other distribution licensees such as TPC-D and RInfra-D in terms of Rs/kWh. Accordingly, the Commission has stipulated wheeling charges for use of wire network of MSEDCL for FY 2009-10 in terms of Rs/kWh at various voltage levels as summarized below. Such wheeling charges shall come into effect from date of issuance of this Tariff Order. The per unit wheeling charge (Rs/kWh) at each voltage level has been derived as the ratio of apportioned network wheeling cost at each voltage level and energy units handled at respective voltage level.

In addition, wheeling loss in kind shall also be applicable for wheeling transactions. MSEDCL has not submitted the voltage-level loss data, despite being queried by the Commission on several occasions. In the absence of this data, the Commission has used its best judgement to assess the voltage level losses. It is also logical that the open access consumers have to bear only the technical losses in the system, and should not be asked to bear any part of the commercial losses.

The technical losses at higher voltages will be lower than the technical losses at lower voltages. The Commission has considered the technical losses at 33 kV as 6% and the technical losses at 22 kV/11 kV at 9%, as projected by MSEDCL. However, as regards technical losses at LT level, the Commission does not agree with MSEDCL proposal to apply overall distribution loss of 22.2% (i.e., opening distribution loss at FY 2009-10 as projected by MSEDCL) which includes commercial loss component as well. The Commission hence, rules that the wheeling loss applicable is 6% for open access transactions entailing drawal at 33 kV level, 9% for drawal at 22 kV/11 kV level, and 14% for drawal at LT level equivalent to estimated technical loss at LT level, considering that the overall distribution loss allowed for FY 2009-10 is 18.2%.

Accordingly, approved Wheeling Charges and Wheeling Loss at HT and LT level for FY 2009-10 is summarised in the following Table:

Item Description	**Approved for FY 2009-10**

	Wheeling Charge (Rs/kWh)	Wheeling Loss (%)
33 kV	0.05	6%
22 kV / 11 kV	0.25	9%
LT level	0.43	14%

In addition, the Commission reiterates that all other conditions and principles as regards Applicability of Wheeling Charges and Wheeling Losses (Ref. Cl. 6.6) and Cross-subsidy surcharge (Ref. Cl. 6.7) for open access transactions as outlined under MYT Order (Case No. 65 of 2006) and further elaborated vide Commission's Order dated November 20, 2007 (Case No. 33 of 2007) shall continue to be applicable under this Order for Wheeling Charges as approved for FY 2009-10.

5.7 Cross-subsidy Surcharge

The cross-subsidy surcharge for eligible open access consumers will continue to be zero, in continuation of the Commission's decision in this regard in the previous Tariff Order.

5.8 Incentives and Disincentives

Power Factor Incentive (Applicable for HT I, HT II, HT IV, HT V and HT VI categories, as well as LT II (B), LT II (C), LT III, and LT V (B) categories)
Whenever the average power factor is more than 0.95, an incentive shall be given at the rate of 1% (one percent) of the amount of the monthly bill including energy charges, reliability charges, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for every 1% (one percent) improvement in the power factor (PF) above 0.95. For PF of 0.99, the effective incentive will amount to 5% (five percent) reduction in the monthly bill and for unity PF, the effective incentive will amount to 7% (seven percent) reduction in the monthly bill.

Power Factor Penalty (Applicable for HT I, HT II, HT IV, HT V and HT VI categories, as well as LT II (B), LT II (C), LT III, and LT V (B) categories)

Whenever the average PF is less than 0.9, penal charges shall be levied at the rate of 2% (two percent) of the amount of the monthly bill including energy charges, reliability charges, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for the first 1% (one percent) fall in the power factor below 0.9, beyond which the penal charges shall be levied at the rate of 1% (one percent) for each percentage point fall in the PF below 0.89.

Prompt Payment Discount

A prompt payment discount of one percent on the monthly bill (excluding Taxes and Duties) shall be available to the consumers if the bills are paid within a period of 7 days from the date of issue of the bill, or within 5 days of the receipt of the bill, whichever is later.

Delayed Payment Charges (DPC)

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 2 percent on the total electricity bill (including Taxes and Duties) shall be levied on the bill amount. For the purpose of computation of time limit for payment of bills, "the day of presentation of bill" or "the date of the bill" or "the date of issue of the bill", etc. as the case may be, will not be excluded.

Rate of Interest on Arrears

The rate of interest chargeable on arrears will be as given below for payment of arrears-

Sr. No.	Delay in Payment (months)	Interest Rate p.a. (%)
1	Payment after due date upto 3 months (0 - 3)	12%
2	Payment made after 3 months and before 6 months (3 - 6)	15%
3	Payment made after 6 months (> 6)	18%

Load Factor Incentive

Consumers having load factor over 75% upto 85% will be entitled to a rebate of 0.75% on the energy charges for every percentage point increase in load factor from 75% to 85%. Consumers having a load factor over 85 % will be entitled to rebate of 1% on the energy charges for every percentage point increase in load factor from 85%. The total rebate under this head will be subject to a ceiling of 15% of the energy charges for that consumer. This incentive is limited to HT I and HT II categories only. Further, the load factor rebate will be available only if the consumer has no arrears with MSEDCL, and payment is made within seven days from the date of the bill. However, this incentive will be applicable to consumers where payment of arrears in instalments has been granted by MSEDCL, and the same is being made as scheduled. MSEDCL has to take a commercial decision on the issue of how to determine the time frame for which the payments should have been made as scheduled, in order to be eligible for the Load Factor incentive.

The Load Factor has been defined below:

$$\text{Load Factor} = \frac{\text{Consumption during the month in MU}}{\text{Maximum Consumption Possible during the month in MU}}$$

Maximum consumption possible = Contract Demand (kVA) x Actual Power Factor x (Total no. of hrs during the month less planned load shedding hours*)

* - Interruption/non-supply to the extent of 60 hours in a 30 day month has been built in the scheme.

In case the billing demand exceeds the contract demand in any particular month, then the load factor incentive will not be payable in that month. (The billing demand definition excludes the demand recorded during the non-peak hours i.e. 22:00 hrs to 06:00 hrs and therefore, even if the maximum demand exceeds the contract demand in that duration, load factor incentives would be applicable. However, the consumer would be subjected to the penal charges for exceeding the contract demand and has to pay the applicable penal charges).

5.9 APPLICABILITY OF ORDER

This Order for the third year of the first Control Period, i.e., for FY 2009-10, shall come into force with effect from August 1, 2009. The Commission will undertake the Annual Review of MSEDCL's performance during the last quarter of FY 2009-10. MSEDCL is directed to submit its Petition for Annual Review of its performance during the first half of FY 2009-10, as well as truing up of revenue and expenses for FY 2008-09 based on audited accounts, with detailed reasons for deviation in performance, latest by November 30, 2009.

The Commission acknowledges the efforts taken by the Consumer Representatives and other individuals and organisations for their valuable contribution to the APR process for MSEDCL for FY 2008-09 and determination of revised revenue requirement for FY 2009-10.

Sd/-	Sd/-	Sd/-
(S. B. Kulkarni) Member	(A. Velayutham) Member	(V.P. Raja) Chairman

(P.B. Patil)
Secretary, MERC

Annexure I

Detailed computation of category-wise revenue with revised tariffs

Categories	Components of tariff		Relevant sales & load/demand data		Full year revenue (Rs. Crore)		
	Fixed / Demand Charge (Rs /service connection/ month or Rs /kVA/ month or Rs /HP/ month)	Energy Charge (paise/ kWh)	Annual Sales (MU)	Connected Load/ Contract Demand (HP/kVA)	Revenue from Fixed/ Demand Charge	Revenue from Energy Charge	Total
HT Category							
HT I - Industries			**22,646**	**6,586,777**	**904**	**11060**	**11964**
HT I-Cont (Express Feeders)	150	505	14086	3538366	503	7109	
HT I-Non Cont (Non Express Feeders)	150	460	8435	2943773	392	3880	
HT I - Seasonal Category	150	570	125	104638	**9**	**71**	
TOD Consumption							
2200 Hrs-0600 Hrs		-85	7321			**-622**	
0600 Hrs-0900Hrs & 1200 Hrs- 1800Hrs		0	8550			**0**	
0900 Hrs-1200 Hrs		80	2959			**237**	
1800 Hrs-2200 Hrs		110	3816			**420**	**34**
HT I Industrial			**22,646**	**6,586,777**	**904**	**11094**	**11999**
HT II Commercial	**150**	715	**1005**	**550288**	**61**	**718**	**780**
HT III Railways	**0**	535	**1355**			**725**	**725**
HT IV- Public Water Works (PWW)			**1353**	**235911**	**34**	**470**	**504**
Express Feeders	150	350	982	131423	19	344	
Non-Express Feeders	150	340	371	104488	15	126	
TOD Consumption							
2200 Hrs-0600 Hrs		-85	437			**-37**	
0600 Hrs-0900Hrs & 1200 Hrs- 1800Hrs		0	532			**0**	
0900 Hrs-1200 Hrs		80	168			**13**	
1800 Hrs-2200 Hrs		110	216			**24**	
HTV - Agricultural	**25**	195	**551**	**361990**	**11**	**108**	**118**
HT VI - Bulk Supply			**484**	**145387**	**16**	**198**	**213**
Residential Complex	125	360	385	131351	14	139	153
Commercial Complex	125	600	98	14036	2	59	61
Mula Pravara Electric Co-op Society (MPECS)	**100**	250	**655**	**140000**	**17**	**164**	**181**
TOTAL HT Category			**28048**	**8020353**	**1043**	**13477**	**14520**

Categories	No of consumers	Components of tariff		Relevant sales & load/demand data		Full year revenue (Rs. Crore)		
		Fixed / Demand Charge (Rs /service connection/ month or Rs /kVA/ month or Rs /HP/ month)	Energy Charge (paise/ kWh)	Annual Sales (MU)	Connected Load/ Contract Demand (HP/kVA)	Revenue from Fixed/ Demand Charge	Revenue from Energy Charge	Total
LT Category								
Domestic (LT 1)								
BPL (0-30 Units)	146421	3	66	53		0.53	4	**4**
Consumption > 30 Units Per Month								
0-100 Units	8401259	30	235	4911		302	1154	1456
101-300 Units	2762058	30	425	4353		99	1849	1948
301-500 Units	230172	30	585	893		8	522	531
Above 500 Units	120840	100	685	1116		15	765	779
Three Phase Connection								
Sub Total Domestic				**11327**		**425**	**4293**	**4718**
Non Domestic (LT 2)								
0-20 kW	**1142943**			**2601**	**1686693**			
0-200 Units	525754	150	420	1196		95	502	597
Above 200 units	617189	150	590	1404		111	828	939
>20- 50 kW	**11204**	**150**	620	**367**	**723382**	**104**	**227**	331
>50 kW	**1276**	**150**	810	**95**	**194757**	**28**	**77**	105
Sub Total Non-Domestic				**3062**		**338**	**1634**	**1972**
LT VIII Advertisement and Hoarding	1675	400	1,300	**3**		0.80	4	**4**
LT Industries (LT V)								
0-20 KW	223475	150	350	3194	1929942	40	1118	1158
Above 20 KW		100	475	2635	2339545	112	1251	1364
TOD Consumption								
2200 Hrs-0600 Hrs			-85	1885			**-160**	
0600 Hrs-0900Hrs & 1200 Hrs- 1800Hrs			0	2200			**0**	
0900 Hrs-1200 Hrs			80	761			**61**	
1800 Hrs-2200 Hrs			110	982			**108**	**9**
Sub Total General Motive Power				**5828**	**4269487**	**153**	**2378**	**2530**

Categories	No of consumers	Components of tariff		Relevant sales & load/demand data		Full year revenue (Rs. Crore)		
		Fixed / Demand Charge (Rs /service connection/ month or Rs /kVA/ month or Rs /HP/ month)	Energy Charge (paise/ kWh)	Annual Sales (MU)	Connected Load/ Contract Demand (HP/kVA)	Revenue from Fixed/ Demand Charge	Revenue from Energy Charge	Total
LT III Public Water Works								
0-20 kW		40	160	335	282550	14	54	67
20-40 kW		50	210	98	30430	2	21	22
40-50 kW		70	290	54	58929	5	16	21
Sub Total PWW				**487**		**20**	**90**	**110**
Agriculture (LT 4)								
Unmetered Tariff				7097				
Zones with Consumption norm <1318 hrs/HP annum		176			2363952	501		
Zones with Consumption norm >1318 hrs/HP/annum		206			3856975	953		
Metered Tariff (Including Poultry Farms)		15	137	5845	4804782	86	803	889
Sub Total Agriculture				**12941.831**		**1540**	**803**	**2343**
Street Light (LT 6)								
Grampanchayat, A, B & C Class Municipal Council		30	280	437	233113	8	122	131
Municipal Corporation Areas		30	340	295	89398	3	100	104
Sub Total Street Light				**732**	322511	**12**	**223**	**234**
Temporary Connection								
Temporary Connections (Other Purposes)	12,437	250	1,100	264		4	291	294
Temporary Connections (Religious)		200	240	2			0	0
				266		**4**	**291**	**295**
Crematorium & Burial Grounds		200	240	**1**		0.0	0.1	**0.1**
TOTAL LT CATEGORY				**34648**		**2493**	**9716**	**12208**
Total MSEDCL				**62696**		**3535**	**23193**	**26728**
Standby Charges								396
Total MSEDCL Sales				**62696**		**3535**	**23193**	**27124**

Annexure II: Approved Tariff Schedule

MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.

(WITH EFFECT FROM August 1, 2009)

The Maharashtra Electricity Regulatory Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 and all other powers enabling it in this behalf, has determined, by its Order dated August 17, 2009 in the matter of Case No.116 of 2008, the retail tariff for supply of electricity by Maharashtra State Electricity Distribution Company Limited (MSEDCL) for various classes of consumers as applicable from August 1, 2009.

GENERAL:

1. These tariffs supersede all tariffs so far in force including in the case where any agreement provides specifically for continuance of old agreemental tariff, or any modifications thereof as may have been already agreed upon.
2. Tariffs are subject to revision and/or surcharge that may be levied by MSEDCL from time to time as per the directives of the Commission.
3. The tariffs are exclusive of Electricity Duty, Tax on Sale of Electricity (ToSE) and other charges as levied by Government or other competent authorities and the same, will be payable by the consumers in addition to the charges levied as per the tariffs hereunder.
4. The tariffs are applicable for supply at one point only.
5. MSEDCL reserves the right to measure the Maximum Demand for any period shorter than 30 minutes period of maximum use, subject to conformity with the prevalent Supply Code, in cases where MSEDCL considers that there are considerable load fluctuations in operation.
6. The tariffs are subject to the provisions of the MERC (Electricity Supply Code and Other Conditions of Supply) Regulations, 2005 in force (i.e., as on August 1, 2009) and directions, if any that may be issued by the Commission from time to time.
7. Unless specifically stated to the contrary, the figures of Energy Charge relate to Rupees per unit (kWh) charge for energy consumed during the month.
8. Fuel Adjustment Costs (FAC) Charge as may be approved by the Commission from time to time shall be applicable to all categories of consumers and will be charged over

and above the tariffs on the basis of FAC formula specified by the Commission and computed on a monthly basis.

LOW TENSION (LT) – TARIFF

LT I: LT – Residential (BPL)

Applicability

Residential consumers who have a sanctioned load of up to and less than 0.1 kW, and who have consumed less than 360 units per annum in the previous financial year. The applicability of BPL category will have to be assessed at the end of each financial year. In case any BPL consumer has consumed more than 360 units in the previous financial year, then the consumer will henceforth, be considered under the LT-I residential category. Once a consumer is classified under the LT-I category, then he cannot be classified under BPL category.

The categorisation of such BPL consumers will be reassessed at the end of the financial year, on a pro-rata basis. Similarly, the classification of BPL consumers who have been added during the previous year would be assessed on a pro-rata basis, i.e., 30 units per month.

All the new consumers subsequently added in any month with sanctioned load of upto and less than 0.1 kW and consumption between 1 to 30 units (on pro rata basis of 1 unit/day) in the first billing month, will be considered in BPL Category.

No Institutions will be covered under BPL category.

Rate Schedule

Consumption Slab (kWh)	**Fixed /Demand Charge**	**Energy Charge (Rs./kWh)**
BPL Category	Rs. 3 per month	0.66

LT I: LT – Residential

Applicability

Electricity used at Low/Medium Voltage for operating various appliances used for purposes like lighting, heating, cooling, cooking, washing/cleaning, entertainment/leisure, pumping in the following places:

a) Private residential premises,
b) Premises exclusively used for worship such as temples, gurudwaras, churches, mosques, etc. Provided that Halls, Gardens or any other portion of the premises that

may be let out for consideration or used for commercial activities would be charged at LT-II tariff as applicable.

c) All Students Hostels affiliated to Educational Institutions.

d) All Ladies Hostels, such as Students (Girls) Hostels, Working Women Hostels, etc.

e) Other type of Hostels, like (i) Homes/Hostels for Destitute, Handicap or Mentally deranged persons (ii) Remand Homes (iii) Dharamshalas, etc., subject to verification and confirmation by MSEDCL's concerned Zonal Chief Engineer.

f) Telephone booth owned/operated by handicapped person subject to verification and confirmation by MSEDCL's concerned Zonal Chief Engineer.

g) Residential premises used by professionals like Lawyers, Doctors, Professional Engineers, Chartered Accountants, etc., in furtherance of their professional activity in their residences but shall not include Nursing Homes and any Surgical Wards or Hospitals.

Rate Schedule

Consumption Slab (kWh)	**Fixed/Demand Charge**	**Energy Charge (Rs./kWh)**
0-100 units	Single Phase : Rs. 30 per month Three Phase : Rs. 100 per month $^{\$\$}$	2.35
101 – 300 units		4.25
301 – 500 units		5.85
Above 500 units (balance units)		6.85

Note:

a) $^{\$\$}$:. Additional Fixed Charge of Rs. 100 per 10 kW load or part thereof above 10 kW load shall be payable.

b) Professionals like Lawyers, Doctors, Professional Engineers, Chartered Accountants, etc., occupying premises exclusively for conducting his profession, shall not be eligible for this tariff.

LT II: LT– Non-Residential or Commercial

Applicability

Electricity used at Low/Medium Voltage in all non-residential, non-industrial premises and/or commercial premises for commercial consumption meant for operating various appliances used for purposes such as lighting, heating, cooling, cooking, washing/cleaning, entertainment/leisure, pumping in following places:

a) Non-Residential, Commercial and Business premises, including Shopping malls

b) All Educational Institutions, Hospitals and Dispensaries

c) Combined lighting and power services for Entertainment including film studios, cinemas and theatres, including multiplexes, Hospitality, Leisure, Meeting Halls and Recreation places.

d) Electricity used for the external illumination of monumental/historical/heritage buildings approved by MTDC.

e) Construction purposes

Rate Schedule

<table>
<tr><th>Consumption Slab
(kWh)</th><th>Fixed/ Demand Charge</th><th>Energy Charge
(Rs./kWh)</th></tr>
<tr><td>(A) 0-20 kW</td><td></td><td></td></tr>
<tr><td>0 to 200 units per month</td><td>Rs. 150 per month</td><td>4.20</td></tr>
<tr><td>Above 200 units per month (only balance consumption)</td><td>Rs. 150 per month</td><td>5.90</td></tr>
<tr><td>(B) > 20 kW and ≤ 50 kW</td><td rowspan="2"><u>Rs. 150 per kVA per month</u></td><td>6.20</td></tr>
<tr><td>(C) > 50 kW</td><td>8.10</td></tr>
<tr><td colspan="3">TOD Tariffs (in addition to above base tariffs)</td></tr>
<tr><td>0600 to 0900 hours</td><td></td><td>0.00</td></tr>
<tr><td>0900 to 1200 hours</td><td></td><td>0.80</td></tr>
<tr><td>1200 to 1800 hours</td><td></td><td>0.00</td></tr>
<tr><td>1800 to 2200 hours</td><td></td><td>1.10</td></tr>
<tr><td>2200 to 0600 hours</td><td></td><td>-0.85</td></tr>
</table>

Note:

The ToD tariff is applicable for LT-II (B) and (C) category, and optionally available to LT- II (A) having ToD meter installed.

LT III: LT - Public Water Works and Sewage Treatment Plants

Applicability

Applicable for LT Power Supply to Public Water Supply Schemes and Sewage Treatment Plants.

Rate Schedule

Consumer Category	Fixed/Demand Charge	Energy Charge (Rs./kWh)

(A) 0 - 20 kW	Rs 40 per kVA per month	1.60
(B) >20 kW and ≤ 40 kW	Rs 50 per kVA per month	2.10
(C) >40 kW and ≤ 50 kW	Rs 70 per kVA per month	2.90
TOD Tariffs (in addition to above base tariffs)		
0600 to 0900 hours		0.00
0900 to 1200 hours		0.80
1200 to 1800 hours		0.00
1800 to 2200 hours		1.10
2200 to 0600 hours		-0.85

LT IV: LT- Agricultural

Applicability

Applicable for motive power services exclusively for Agricultural pumping loads and pre-cooling & cold storage on LT Supply.

Rate Schedule

Consumer Category	**Fixed/Demand Charge**	**Energy Charge (Rs./kWh)**
LT IV – Agriculture		
Un-metered Tariff		
Category 1 Zones*	Rs. 276 per kW per month- (Rs 206 per HP per month)	Nil
Category 2 Zones#	Rs 237 per kW per month- (Rs. 176 per HP per month)	Nil
Metered Tariff (including Poultry Farms)	Rs 20 per kW per month- (Rs 15 per HP per month)	1.37

***Category 1 Zones (with consumption norm above 1318 hours/HP/year)**		
1) Bhandup (U)	2) Pune	3) Nashik

#Category 2 Zones (with consumption norm below 1318 hours/HP/year)		
1) Amravati	2) Aurangabad	3) Kalyan
4) Konkan	5) Kolhapur	6) Latur
7) Nagpur (U)	8) Nagpur	

Note:

i. The Flat Rate tariff as above will remain in force only till meters are installed, and once meter is installed; the consumer will be billed as per the tariff applicable to metered agricultural consumers.

ii. The list of Category 1 Zones (with consumption norm above 1318 hours/ HP/year) & Category 2 Zones (with consumption norm below 1318 hours/HP/year) is given above.

iii. The Poultry (exclusively undertaking Layer & Broiler activities) consumers as well as High Tech Agricultural (i.e. Tissue Culture, Green House, Mushroom activities) consumers will be billed as per agricultural metered tariff.

iv. Supply under this tariff will be given for minimum load of 2 HP. If any consumer requires any load of less than 2 HP for agricultural purposes, he shall be required to pay the Fixed Charge/Energy Charge on this basis as if a load of 2 HP is connected.

v. This tariff is also available for purpose of operating a cane crusher and/or fodder cutter, etc., for self use for agricultural processing purpose, but not for operating a flour mill, oil mill or expeller in the same premises, either operated by a separate motor or change of belt drive.

vi. One lamp of wattage up to 40 watts will be allowed to be connected to the motive power circuit for use in the pump house.

LT V: LT- Industry

Applicability

Applicable for industrial use at Low/Medium Voltage in premises for purpose of manufacturing, including that used within these premises for general lighting, heating/cooling, etc., excluding Agricultural Pumping Loads. This consumer category also includes IT industry and IT enabled services (as defined in the Government of Maharashtra Policy).

Rate Schedule

Consumer Category	Fixed/Demand Charge	Energy Charge (Paise/kWh)
LT V - Industrial		

(A) 0 - 20 kW (upto and including 27 HP)	Rs. 150 per connection per month	3.50
(B) Above 20 kW (above 27 HP)	Rs. 100 per kVA per month for 65% of maximum demand or 40% of contract demand, whichever is higher	4.75
TOD Tariff (In addition to above base tariffs)		
0600 hrs - 0900 hrs		0.00
0900 hrs - 1200 hrs		0.80
1200 hrs - 1800 hrs		0.00
1800 hrs - 2200 hrs		1.10
2200 hrs - 0600 hrs		-0.85

Note:

a) The ToD tariff is applicable for LT V (B) and optionally available to LT- V (A) having ToD meter installed.

LT VI: LT- Street Lights

Applicability

Electricity used at Low/Medium Voltage for purpose of public street lighting, lighting in public gardens, traffic island, bus shelters, public sanitary conveniences, police chowkies, traffic lights, public fountains, and other such common public places irrespective of whether such facilities are being provided by the Government or other private parties.

Rate Schedule

Consumer Category	**Fixed/Demand Charge**	**Energy Charge (Rs./kWh)**
LT VI - Street Light		
(A) Grampanchayat, A, B & C Class Municipal Council	Rs 30 per KW per month	2.80
(B) Municipal Corporation Areas		3.40

LT VII: LT-Temporary Supply

Applicability

LT VII (A) – Temporary Supply Religious (TSR)

Electricity supplied at Low/Medium Voltage for temporary purposes during public religious functions like Ganesh Utsav, Navaratri, Eid, Moharam, Ram Lila, Ambedkar Jayanti, Diwali, Christmas, Guru Nanak Jayanti, etc., or areas where community prayers are held, for a period of up to one (1) year.

LT VII (B) - Temporary Supply Others (TSO)

Electricity used at Low/Medium Voltage on a temporary basis for decorative lighting for exhibitions, circus, film shooting, marriages, etc. and any activity not covered under tariff LT VII (A), and electricity used at low/medium voltage on an emergency basis for purpose of fire fighting activity by the fire department in residential/other premises, for a period of up to one (1) year.

Rate Schedule

Consumption Slab (kWh)	**Fixed/Demand Charge**	**Energy Charge (Rs./kWh)**
LT VII (A) – All Units	Rs. 200 per connection per month	2.40
LT VII (B) – All Units	Rs. 250 per connection month	11.00

Note

In case of LT VII (B), Additional fixed charges of Rs. 150 per 10 kW load or part thereof above 10 kW load shall be payable

LT VIII: LT - Advertisements and Hoardings

Applicability

Electricity used for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at departmental stores, malls, multiplexes, theatres, clubs, hotels and other such entertainment/leisure establishments except those specifically covered under LT-II as well as electricity used for the external illumination of monumental, historical/heritage buildings approved by MTDC, which shall be covered under LT-II category depending upon Sanctioned Load.

Rate Schedule

Consumption Slab (kWh)	**Fixed / Demand Charge**	**Energy Charge (Rs./kWh)**
All Units	Rs. 400 per connection month	13.00

Note:

The electricity, that is used for the purpose of indicating/displaying the name and other details of the shops or Commercial premises, for which electric supply is rendered, shall not be under LT VIII tariff Category. Such usage of electricity shall be covered under the prevailing tariff of such shops or commercial premises.

LT IX: LT- Crematorium and Burial Grounds

Applicability

Electricity used at Low/Medium Voltage in Crematorium and Burial Grounds for all purposes including lighting, and will be applicable only to the portion catering to such activities, and in case part of the area is being used for other commercial purposes, then a separate meter will have to be provided for the same, and the consumption in this meter will be chargeable under LT-II Commercial rates as applicable.

Rate Schedule

Consumption Slab (kWh)	**Fixed/Demand Charge**	**Energy Charge (Rs./kWh)**
All Units	Rs. 200 per connection per month	2.40

HIGH TENSION (HT) – TARIFF

1. HT I : HT- Industry

Applicability

This category includes consumers taking 3-phase electricity supply at High Voltage for industrial purpose. This Tariff shall also be applicable to IT Industry & IT enabled services (as defined in the Government of Maharashtra policy).

Seasonal Industry

Applicable to Seasonal consumers, who are defined as "One who works normally during a part of the year up to a maximum of 9 months, such as Cotton Ginning Factories, Cotton Seed Oil Mills, Cotton Pressing Factories, Salt Manufacturers, Khandsari/Jaggery Manufacturing Units, or such other consumers who opt for a seasonal pattern of consumption, such that the electricity requirement is seasonal in nature.

Rate Schedule

Consumer Category	**Demand Charge**	**Energy Charge (Rs./kWh)**
HT I - Industry		
Continuous Industry (on express feeder)	Rs.150 per kVA per month	5.05
Non-continuous Industry (not on express feeder)	Rs.150 per kVA per month	4.60
Seasonal Industry	Rs.150 per kVA per month	5.70
TOD Tariff (In addition to above base tariff)		
0600 to 0900 hours		0.00
0900 to 1200 hours		0.80
1200 to 1800 hours		0.00
1800 to 2200 hours		1.10
2200 to 0600 hours		-0.85

Note:

i. High Tension Industrial consumers having captive generation facility synchronised with the grid, will pay additional demand charges of Rs.

20/kVA/Month only on the extent of standby contract demand component and not on the entire Contract Demand (Standby Contract demand component).

ii. Standby Charges will be levied on such consumers on the standby component, only if the consumer's demand exceeds the Contract Demand.

iii. This additional Demand Charge will not be applicable, if there is no standby demand & the Captive Unit is synchronised with the Grid only for the export of power.

iv. Only HT industries connected on express feeders and demanding continuous supply will be deemed as HT continuous industry and given continuous supply, while all other HT industrial consumers will be deemed as HT non-continuous industry.

HT II: HT- Commercial

Applicability

This category includes consumers of electricity such as all Educational Institutions, all Hospitals taking supply at High Voltage.

This category also includes consumers taking electricity supply at High Voltage for commercial purposes, including Hotels, Shopping Malls, film studios, cinemas and theatres, including multiplexes.

This category includes consumers taking supply for Construction purposes at HT voltages, including Infrastructure Projects, Buildings, Hill Station, etc.

The Consumers belonging to HT II requiring a single point supply for the purpose of downstream consumption by separately identifiable entities will have to either operate through a franchisee route or such entities will have to take individual connections under relevant category. These downstream entities will pay appropriate tariff as applicable as per MSEDCL Tariff Schedule, i.e., LT II.

Rate Schedule

Consumption Slab (kWh)	**Fixed/ Demand Charge**	**Energy Charge (Rs./kWh)**
All Units	Rs. 150 per kVA per month	7.15
TOD Tariffs (in addition to above base tariffs)		

Consumption Slab (kWh)	Fixed/ Demand Charge	Energy Charge (Rs./kWh)
0600 to 0900 hours		0.00
0900 to 1200 hours		0.80
1200 to 1800 hours		0.00
1800 to 2200 hours		1.10
2200 to 0600 hours		-0.85

HT III: HT - Railway Traction

Applicability

This tariff is applicable to Railway Traction only.

Rate Schedule

Consumer Category	Demand Charge (Rs/kVA/month)	Energy Charge (Rs./kWh)
HT III - Railway Traction	Nil	5.35

HT IV: HT - Public Water Works and Sewage Treatment Plants

Applicability

This tariff will be applicable for all Public Water Supply scheme consumers and Sewage Treatment Plants taking supply at High Voltage.

Rate Schedule

Consumer Category	Demand Charge	Energy Charge (Rs./kWh)
HT IV - Public Water Works		
Express Feeders	Rs. 150 per kVA per month	3.50
Non- Express Feeders		3.40
TOD Tariff (In addition to above base tariff)		
0600 to 0900 hours		0.00
0900 to 1200 hours		0.80
1200 to 1800 hours		0.00
1800 to 2200 hours		1.10
2200 to 0600 hours		-0.85

HT V: HT – Agricultural

Applicability

Applicable for High Tension Agricultural Pumping loads, including HT Lift Irrigation Schemes (LIS) irrespective of ownership and also for

(i) Poultry (exclusively for Layer & Broiler Activities),

(ii) High Tech Agricultural (i.e. Green Houses, Tissue Culture, Mushroom, etc) purpose;

(iii) Pre-cooling & Cold Storage for Agricultural Produce of Farmer's Co-operative Societies.

Rate Schedule

Consumption Slab (kWh)	**Demand Charge**	**Energy Charge (Rs./kWh)**
All Units	Rs. 25 per kVA per month	1.95

HT VI:

Applicability

Applicable for consumers taking supply at HT voltages at single point for consumption within HT Residential Complexes, viz., Group Housing Societies, Colonies of industrial consumers and educational institutions, and Commercial Complexes only.

Rate Schedule

Consumer Category	**Demand Charge**	**Energy Charge (Rs./kWh)**
HT VI		
Group Housing Society	Rs. 125 per kVA per month	3.60
Commercial Complex		6.00

NOTE:

i. Demand Charges as above will however be applicable only when the power supply to such Residential/Commercial Complexes is given through independent point of supply. In case of mixed complexes, use of sub-meters is essential for arriving at energy charges for type of category. HT VI tariff will be applicable only for Group Housing Societies and Colonies of industrial consumers and educational institutions.

ii. MSEDCL is directed to ensure metering arrangements so that consumers currently classified under HT-VI Commercial Category, and requiring a single point supply, will have to either operate through a franchise route or take individual connections under relevant category.

HT VII: HT- Mula Pravara Electric Co-op Society

Applicability

Applicable to Mula Pravara Electric Co-op Society only.

Rate Schedule

Consumption Slab (kWh)	Demand Charge	Energy Charge (Rs./kWh)
All Units	Rs. 100 per kVA per month	2.50

HT VIII - HT - Temporary Supply

Applicability

Electricity used at High Voltage on a temporary basis of supply for any decorative lighting for exhibitions, circus, film shooting, marriages, etc., , for a period of up to one (1) year

This category also includes electricity supplied at High Voltage for temporary purposes during public religious functions like Ganesh Utsav, Navaratri, Eid, Moharam, Ram Lila, Ambedkar Jayanti, Diwali, Christmas, Guru Nanak Jayanti, etc. or areas where community prayers are held.

Rate Schedule

Consumption Slab (kWh)	Fixed/Demand Charge	Energy Charge (Rs./kWh)
Temporary Supply - All units	Rs. 200 per connection per month	10.00

Note:

Additional fixed charges of Rs. 150 per 10 kW load or part thereof above 10 kW load shall be payable.

MISCELLANEOUS AND GENERAL CHARGES

Fuel Adjustment Cost (FAC) Charges

The FAC charge will be determined based on the approved Formula and relevant directions, as may be given by the Commission from time to time and will be applicable to all consumer categories for their entire consumption. The FAC Formula takes into account any change in the cost of own generation and power purchase due to variations in the fuel cost. Fuel Price shall mean the landed cost of fuel at power station battery limits and will consist of only following components:

a) Basic Fuel Price including statutory taxes, duties, royalty as applicable

b) Transportation (freight) cost by rail/road/pipeline or any other means including transportation service charges for bringing fuel up to the Power Station boundary.

c) Fuel Treatment Charges such as washing / cleaning charges, Sizing Crushing Charges, Fuel Analysis Charges etc. for making fuel up to the required grade / quality

d) Fuel Handling Charges, including that towards loading and unloading charges for bringing fuel to the power station boundary.

Besides above, the Commission specifies a ceiling on 'transportation service charge', at 2% of the freight charge.

The FAC charge shall be computed and levied/refunded, as the case may be, on a monthly basis. The following Formula shall be used for computing FAC:

FAC = C + I + B where,
FAC = Total Fuel Cost and Power Purchase Cost Adjustment
C = Change in cost of own generation and power purchase due to variation in the fuel cost,

I = Interest on Working Capital,

B = Adjustment Factor for over-recovery/under-recovery.

The details for each month shall be available on MSEDCL website at www.mahadiscom.in.

Electricity Duty

The Electricity Duty and Tax on Sale of Electricity will be charged in addition to charges levied as per the tariffs mentioned hereunder (as approved by the Commission) as per the Government guidelines from time to time. However, the rate and the reference number of the Government Resolution/ Order vide which the Electricity Duty and Tax on Sale of Electricity is made effective, shall be stated in the bill. A copy of the said Resolution/Order shall be made available on MSEDCL website at www.mahadiscom.in.

Power Factor Calculation

Wherever, the average power factor measurement is not possible through the installed meter, the following method for calculating the average power factor during the billing period shall be adopted-

$$\text{Average Power Factor} = \frac{Total(kWH)}{Total(kVAh)}$$

$$\text{Wherein the kVAh is} = \sqrt{\sum(kWh)^2 + \sum(RkVAh)^2}$$

(i.e., Square Root of the summation of the squares of kWh and RkVAh)

Power Factor Incentive

(Applicable for HT I, HT II, HT IV, HT V and HT VI categories, as well as LT II (B), LT II (C), LT III, and LT V (B) categories)

Whenever the average power factor is more than 0.95, an incentive shall be given at the rate of 1% (one percent) of the amount of the monthly bill including energy charges, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for every 1% (one percent) improvement in the power factor (PF) above 0.95. For PF of 0.99, the effective incentive will amount to 5% (five percent) reduction in the monthly bill and for unity PF, the effective incentive will amount to 7% (seven percent) reduction in the monthly bill.

Power Factor Penalty

(Applicable for HT I, HT II, HT IV, HT V and HT VI categories, as well as LT II (B), LT II (C), LT III, and LT V (B) categories)

Whenever the average PF is less than 0.9, penal charges shall be levied at the rate of 2% (two percent) of the amount of the monthly bill including energy charges, FAC, and Fixed/Demand Charges, but excluding Taxes and Duties for the first 1% (one percent) fall in the power factor below 0.9, beyond which the penal charges shall be levied at the rate of 1% (one percent) for each percentage point fall in the PF below 0.89.

Prompt Payment Discount

A prompt payment discount of one percent on the monthly bill (excluding Taxes and Duties) shall be available to the consumers if the bills are paid within a period of 7 days from the date of issue of the bill, or within 5 days of the receipt of the bill, whichever is later.

Delayed Payment Charges (DPC)

In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 2 percent on the total electricity bill (including Taxes and Duties) shall be levied on the bill amount. For the purpose of computation of time limit for payment of bills, “the day of presentation of bill” or “the date of the bill” or "the date of issue of the bill", etc. as the case may be, will not be excluded.

Rate of Interest on Arrears

The rate of interest chargeable on arrears will be as given below for payment of arrears-

Sl.	**Delay in Payment (months)**	**Interest Rate per annum (%)**
1	Payment after due date up to 3 months (0-3)	12
2	Payment made after 3 months and before 6 months (3-6)	15

3	Payment made after 6 months (>6)	18

Load Factor Incentive

The Commission has retained the Load factor incentive for consumers having Load Factor above 75% based on contract demand. Consumers having load factor over 75% upto 85% will be entitled to a rebate of 0.75% on the energy charges for every percentage point increase in load factor from 75% to 85%. Consumers having a load factor over 85 % will be entitled to rebate of 1% on the energy charges for every percentage point increase in load factor from 85%. The total rebate under this head will be subject to a ceiling of 15% of the energy charges for that consumer. This incentive is limited to HT-I and HT-II consumer category only. Further, the load factor rebate will be available only if the consumer has no arrears with the MSEDCL, and payment is made within seven days from the date of the bill or within 5 days of the receipt of the bill, whichever is later. However, this incentive will be applicable to consumers where payment of arrears in instalments has been granted by the MSEDCL, and the same is being made as scheduled. The MSEDCL has to take a commercial decision on the issue of how to determine the time frame for which the payments should have been made as scheduled, in order to be eligible for the Load Factor incentive.

Load Factor means the ratio of total number of units (kWh) consumed during a given period to the total number of units (kWh) which may have been consumed had the Contract Demand / Sanctioned Load been maintained throughout the same period, subject to availability of power supply from MSEDCL and shall usually be expressed as a percentage.

The Load Factor has been defined below:

$$\text{Load Factor} = \frac{\text{Consumption during the month in MU}}{\text{Maximum Consumption Possible during the month in MU}}$$

Maximum consumption possible = Contract Demand (kVA) x Actual Power Factor x (Total no. of hrs during the month less planned load shedding hours*)

* - Interruption/non-supply to the extent of 60 hours in a 30 day month has been built in the scheme.

In case the billing demand exceeds the contract demand in any particular month, then the load factor incentive will not be payable in that month. (The billing demand definition excludes the demand recorded during the non-peak hours i.e. 22:00 hrs to 06:00 hrs and therefore, even if the maximum demand exceeds the contract demand in that duration, load factor incentives would be applicable. However, the consumer would be subjected to the penal charges for exceeding the contract demand and has to pay the applicable penal charges).

Penalty for exceeding Contract Demand

In case, a consumer (availing Demand based Tariff) exceeds his Contract Demand, he will be billed at the appropriate Demand Charge rate for the Demand actually recorded and will be additionally charged at the rate of 150% of the prevailing Demand Charges (only for the excess Demand over the Contract Demand).

In case any consumer exceeds the Contract Demand on more than three occasions in a calendar year, the action taken in such cases would be governed by the Supply Code.

Additional Demand Charges for Consumers having Captive Power Plant

For customers having Captive Power Plant (CPP), the additional demand charges would be at a rate of Rs. 20/ kVA/month only on extent of Stand-by demand component, and not on the entire Contract Demand. Additional Demand Charges will be levied on such consumers on the Stand-by component, only if the consumer's demand exceeds the Contract Demand.

Security Deposit

1) Subject to the provisions of sub-section (5) of Section 47 of the Act, the Distribution Licensee may require any person to whom supply of electricity has been sanctioned to deposit a security in accordance with the provisions of clause (a) of sub-section (1) of Section 47 of the Electricity Act, 2003.
2) The amount of the security shall be an equivalent of the average of three months of billing or the billing cycle period, whichever is lesser. For the purpose of determining the average billing, the average of the billing to the consumer for the last twelve months, or in cases where supply has been provided for a shorter period, the average of the billing of such shorter period, shall be considered:

   Provided that in the case of seasonal consumers, the billing for the season for which supply is provided shall be used to calculate the average billing.

3) Where the Distribution Licensee requires security from a consumer at the time of commencement of service, the amount of such security shall be estimated by the Distribution Licensee based on the tariff category and contract demand / sanctioned load, load factor, diversity factor and number of working shifts of the consumer.
4) The Distribution Licensee shall re-calculate the amount of security based on the actual billing of the consumer once in each financial year.
5) Where the amount of security deposit maintained by the consumer is higher than the security required to be maintained under MERC (Supply Code) Regulation, 2005, the Distribution Licensee shall refund the excess amount of such security deposit in a single payment:

   Provided that such refund shall be made upon request of the person who gave the security and with an intimation to the consumer, if different from such person, shall be, at the option of such person, either by way of adjustment in the next bill or by way of a separate cheque payment within a period of thirty (30) days from the receipt of such request:

   Provided further that such refund shall not be required where the amount of refund does not exceed the higher of ten (10) per cent of the amount of security deposit required to be maintained by the consumer or Rupees Three Hundred.
6) Where the amount of security re-calculated pursuant as above, is higher than the security deposit of the consumer, the Distribution Licensee shall be entitled to raise a demand for additional security on the consumer.

   Provided that the consumer shall be given a time period of not less than thirty days to deposit the additional security pursuant to such demand.
7) Upon termination of supply, the Distribution Licensee shall, after recovery of all amounts due, refund the remainder amount held by the Distribution Licensee to the person who deposited the security, with an intimation to the consumer, if different from such person.
8) A consumer - (i) with a consumption of electricity of not less than one lac (1,00,000) kilo-watt hours per month; and (ii) with no undisputed sums payable to the Distribution Licensee under Section 56 of the Act may, at the option of such consumer, deposit security, by way of cash, irrevocable letter of credit or unconditional bank guarantee issued by a scheduled commercial bank.
9) The Distribution Licensee shall pay interest on the amount of security deposited in cash (including cheque and demand draft) by the consumer at a rate equivalent to the bank rate of the Reserve Bank of India:

Provided that such interest shall be paid where the amount of security deposited in cash under the Regulation 11 of Supply Code of is equal to or more than Rupees Fifty.

10) Interest on cash security deposit shall be payable from the date of deposit by the consumer till the date of dispatch of the refund by the Distribution Licensee.

Definitions:

<u>Billing Demand for LT Consumer Categories</u>

Billing Demand for LT II (B), LT II (C), LT III and LT V (B) category having MD based tariff:-

Monthly Billing Demand will be the higher of the following:

a) 65% of the Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours
b) 40% of the Contract Demand

Note:

- Demand registered during the period 0600 to 2200 hrs. will only be considered for determination of the Billing demand.
- In case of change in Contract Demand, the period specified in Clause (a) above will be reckoned from the month following the month in which the change of Contract Demand takes place.

<u>Billing Demand for HT Consumer Categories</u>

Billing Demand for HT I, HT II, HT III, HT IV, HT V, HT VI, and HT VII)

Monthly Billing Demand will be the higher of the following:

iv. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

v. 75% of the highest billing demand recorded during the preceding eleven months, subject to the limit of Contract Demand

vi. 50% of the Contract Demand.

Note:

- Demand registered during the period 0600 to 2200 hrs will only be considered for determination of the Billing demand.
- In case of change in Contract Demand, the period specified in Clause (i) above will be reckoned from the month following the month in which the change of Contract Demand takes place.

HT Seasonal Category (HT I)

During Declared Season, Monthly Billing Demand will be the higher of the following:

iv. Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

v. 75% of the Contract Demand

vi. 50 kVA.

During Declared Off-season

Monthly Billing Demand will be the following:

i) Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours

The Billing Demand for the consumers with CPP will be governed as per the CPP order in case No. 55 and 56 of 2003

Contract Demand

Contract Demand means demand in Kilowatt (kW) / Kilo –Volt Ampere (kVA), mutually agreed between MSEDCL and the consumer as entered into in the agreement or agreed through other written communication (For conversion of kW into kVA, Power Factor of 0.80 shall be considered).

Sanctioned Load

Sanctioned Load means load in Kilowatt (kW) mutually agreed between MSEDCL and the consumer.

In case the meter is installed on the LV/MV side, the methodology to be followed for billing purpose is as follows

- 2% to be added to MV demand reading, to determine the kW or kVA billing demand, and
- 'X' units to the MVA reading to determine the total energy compensation to compensate the transformation losses, where is calculated as follows
  'X' = (730 * KVA rating of transformer)/500 Units/month, to compensate for the

iron losses, plus one percent of units registered on the LT side for copper losses.

APPENDIX I

List of persons who attended the Technical Validation Session held on February 26, 2009

Sl.	Name
MSEDCL Officials	
1	Shri M. K. Deore
2	Shri Vijay L Sonavane
3	Shri R. N. Sonar
4	Shri M. M. Digraskar
5	Smt R. B. Gautam
6	Shri S. V. Ramakrishnan
7	Shri S. W. Khandekar
8	Shri Arijit Gosh
9	Shri D. N. Sangelkar
10	Shri A. A. More
11	Shri R. B. Gowardhan
12	Shri S. S. Katkar
13	Shri G. C. Nistani
14	Shri P. S. Ambore
15	Shri P. S. Nirmale
16	Shri G. S. Trimukhe
17	Shri S. M. Rathor
18	Shri Ajay Mehta
19	Shri Abhijeet Despande
20	Shri V. M. Fulzele
21	Shri D. Chatterjeer
22	Shri N. C. Amzare
23	Shri Amit Mittal
24	Shri Sanjay Kumar Jha

Consumer Representatives	
25	Shri Ashok Pendse
26	Shri R. B. Goenka
27	Shri M. Balachandran
28	Shri Shantanu Dixit
29	Shri Ashwini
Consultants to Commission	
30	Shri Palaniappan M
31	Shri S. R. Karkhanis
32	Shri M. N. Bapat
33	Shri Santosh Kumar Singh
34	Shri Saurabh Gupta

APPENDIX II

List of Objectors

Annexed as a separate file