Before the

MAHARASHTRA ELECTRICITY REGULATORY COMMISSION

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Case No. 70 of 2006

IN THE MATTER OF

The Tata Power Company Ltd. (TPC) Multi Year Tariff Petition for its Distribution Business for the Control Period from FY 2007-08 to FY 2009-10

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

Date of Order: April 30, 2007

O R D E R

Upon directions from the Maharashtra Electricity Regulatory Commission (Commission), The Tata Power Company Limited (TPC-D), submitted its application for approval of Multi Year Tariff for its Distribution Business for the first Control Period from FY 2007-08 to FY 2009-10, under affidavit. The Commission, in exercise of the powers vested in it under Section 61 and Section 62 of the Electricity Act, 2003 (EA 2003) and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by TPC-D, all the objections, responses of TPC-D, issues raised during the Public Hearing, and all other relevant material, determines the ARR and Tariff for Distribution Business of TPC as under.

List of Abbreviations

ATE	Appellate Tribunal for Electricity
A&G	Administrative and General
ARR	Annual Revenue Requirement
BEST	Brihanmumbai Electric Supply & Transport Undertaking
CAPEX	Capital Expenditure
CAGR	Compounded Annual Growth
DPR	Detailed Project Report
EA 2003	Electricity Act, 2003
FY	Financial Year
GFA	Gross Fixed Assets
GOM	Government of Maharashtra
HP	Horse Power
kVA	Kilo-Volt Ampere
kW	Kilo Watt
kWh	Kilowatt hour
MERC	Maharashtra Electricity Regulatory Commission
MSETCL	Maharashtra State Electricity Transmission Company Limited
MT	Metric Tonnes
MU	Million Units
MW	MegaWatt
MYT	Multi Year Tariff
O&M	Operations and Maintenance
REL	Reliance Energy Limited
R&M	Repair and Maintenance
TOD	Time of Day
TPC	The Tata Power Company Limited

1 BACKGROUND AND BRIEF HISTORY

TPC is a Company established in 1919. On April 1, 2000, The Tata Hydro-Electric Power Supply Company Limited (established in 1910) and The Andhra Valley Power Supply Company Limited (established in 1916), were merged into TPC to form one unified entity.

1.1 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 26th August, 2005. These Regulations superseded the earlier MERC (Terms and Conditions of Tariff) Regulations, 2004.

1.2 MULTI YEAR TARIFF FRAMEWORK

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

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

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

> *"The applicant shall submit a forecast of his aggregate revenue requirement and expected revenue from tariff and charges for the approval of the Commission for each financial year within a control period of five (5) financial years. Provided that for the first application made to the Commission under this Part, the control period shall be three (3) financial years i.e. April 1, 2006 to March 31, 2009."*

The Commission, considering the requests made by the Utilities, vide its Order dated December 20, 2005 in the matter of Applicability of Multi Year Tariff Framework granted exemption to all the Utilities in Maharashtra from implementation of MYT framework for FY 2006-07. The Commission, in its Order, stated that the Commission would determine the tariff under a multi year tariff framework with effect from April 1, 2007 instead of April 1, 2006 as stipulated in

MERC (Terms and Conditions of Tariff) Regulations, 2005 and accordingly, the first Control Period for MYT framework shall be the three financial years from April 1, 2007 to March 31, 2010. The Commission in the same Order directed the Utilities to submit the ARR and Tariff Petitions for FY 2006-07 by December 31, 2005.

1.3 COMMISSION'S ORDER ON ARR AND TARIFF PETITION FOR FY 2005-06 AND FY 206-07

TPC submitted its ARR and Tariff Petition for FY 2006-07 on February 9, 2006. The Commission, in exercise of the power vested in it under Section 61 and 62 of the Electricity Act, 2003, and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by TPC, all the objections, responses of TPC, issues raised during the Public Hearing, and all other relevant material, issued the Order on the ARR Petition of TPC for FY 2005-06 and ARR and Tariff Petition of TPC for FY 2006-07 on October 3, 2006.

1.4 REVIEW PEITION ON TARIFF ORDER FOR FY 2006-07

TPC filed a Review Petition on the Commission's Order dated October 3, 2006, on TPC's ARR and Tariff Petitions for FY 2005-06 and FY 2006-07 with the Commission. The Commission disposed off the Review Petition through its Order dated March 22, 2007.

1.5 MULTI YEAR TARIFF PETITIONS

As per the MERC Tariff Regulations, the application for the determination of Tariff shall be made to Commission not less than 120 days before the date from when the tariff is intended to be made effective.

The Commission had directed TPC to submit the MYT Petition for the first Control Period by November 30, 2006, so that the Commission could issue the Order before the commencement of the next financial year, such that the revised tariffs are applicable for the entire financial year.

TPC submitted its ARR and Multi Year Tariff Petitions for the first Control period FY 2007-08, FY 2008-09 and FY 2009-10 for its three functions, i.e., Generation, Transmission, and Distribution on 3rd, 9th and 15th January 2007, respectively, and requested the Commission to condone the delay in filing the MYT Petitions.

The retail tariff determined by the Commission through its Tariff Order dated October 3, 2006 for FY 2006-07 in Case 22 and 56 of 2005 was valid till March 31, 2007. TPC filed a Petition seeking extension of the applicability of the tariff stipulated in the aforesaid Order, till such time the Commission's Order determining the tariff for FY 2007-08 is issued. The Commission has issued an Order in Case 2 of 2007 dated April 23, 2006, in this regard, extending the applicability of the existing tariff till such time as the MYT Order is issued, with certain conditionalities.

The previous Tariff Order for TPC was issued in October 2006. Prior to the issue of this Order, TPC was maintaining combined revenue accounts for the three functions of Generation, Transmission and Distribution. After the issue of Tariff Order for FY 2006-07 in October 2006 the Revenue principles were separated in two parts as given below:

> Part 1- April 06 to Sept 06- Revenue based on integrated tariff for TPC consumers as per Tariff Order dated June 11, 2004
>
> Part 2 – Oct 2006 onwards- Revenue based on independent tariff for Generation, Transmission, and Distribution business of TPC as per Tariff Order dated October 3, 2006

TPC, in its Petitions, also requested the Commission to undertake truing up for FY 2006-07 based on half year actual data and revised estimates for the second half of the FY 2006-07.

The Commission vide its letter dated January 24, 2007 forwarded the preliminary data gaps and information required from TPC. TPC submitted its replies to preliminary data gaps and information requirement on January 31, 2007. Thereafter, the Commission held a Technical Validation Session on TPC's MYT Petitions for the first Control Period from FY 2007-08 to FY 2009-10, on February 8, 2007. The list of individuals, who participated in the Technical Validation Session is provided at **Appendix-1**. The Commission, on February 13, 2007, directed TPC to provide additional information and clarifications on various issues raised during the Technical Validation session. The Commission also directed TPC to submit the Public Notice in English and Marathi in the format prescribed by the Commission.

1.6 ADMISSION OF PETITIONS AND PUBLIC PROCESS

TPC submitted its responses to the queries raised during the Technical Validation sessions, on February 20, 2007. The Commission admitted the MYT Petitions of TPC on February 25, 2007.

In accordance with Section 64 of the EA 2003, the Commission directed TPC to publish its application in the prescribed abridged form and manner, to ensure public participation. The Commission also directed TPC to reply expeditiously to all the suggestions and comments from stakeholders on the MYT Petitions. TPC issued the public notices in newspapers inviting comments/suggestions from stakeholders on its MYT Petitions. The Public Notice was published in The Times of India, Indian Express, Loksatta and Saamna newspapers on February 28, 2007. The copies of TPC's Petitions and its summary were made available for inspection/purchase to members of the public at TPC's offices and on TPC's website (www.tatapower.com), and on the web site of the Commission (www.mercindia.org.in) in downloadable format. The Public Notice specified that the suggestions/objections, either in English or Marathi, may be filed in the form of affidavits along with proof of service on TPC. The Public Notice also informed the consumers about the date and venue of the Public Hearing, i.e., March 20, 2007, at 11:00 hours at Indian Merchants Chamber Hall, IMC Marg, Churchgate, Mumbai-400 020.

For more clarity on the principles and philosophy of Multi Year Tariff, the Commission also issued a concept paper on the TPC's Multi Year Tariff which was available in a downloadable format on the Commission's website.

The Commission received written objections expressing concerns on increase in tariff, cross-subsidy, rebates and a host of other issues. Those objectors, who submitted that they would like to be heard in person, were invited for the Public Hearing at Mumbai. The Public Hearing was conducted in Mumbai on March 20, 2007. The list of objectors, who participated in the Public Hearing, is provided in **Appendix 2.**

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

Though a common public process was held for processing the Multi Year Tariff Petitions filed by TPC-G, TPC-T and TPC-D, the Commission is issuing separate Orders on the three Petitions filed by TPC. This Order deals with the Multi Year Tariff Petition of TPC-Distribution Business. Various objections that were raised and discussed after issuing the public notice both in writing as well as during the public hearing related to TPC-D MYT Petition, along with TPC's response and Commission's Rulings have been detailed in Section 2 of this Order.

1.7 ORGANISATION OF THE ORDER

The Order of the Commission regarding the determination of ARR of TPC-Distribution Business over the first Control Period from FY 2007-08 to FY 2009-10 and Tariff for FY 2007-08, is broadly divided into six Sections.

Section 1 of the Order, given in the previous pages, consists of a brief history of the ARR determination process and the subsequent quasi-judicial process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms is appended 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. They have been broadly categorized into 4 issues. The various objections have been summarized, followed by the response of TPC and the rulings of the Commission on each of the points.

Section 3 of the Order comprises the Review of Performance for FY 2006-07.

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

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

Section 6 of the Order comprises the Commission's analysis and its decisions on tariff philosophy and approved category-wise tariffs for FY 2007-08.

2 OBJECTIONS RECEIVED, TPC'S RESPONSE AND COMMISSION'S RULING

2.1 RESERVES AND SPECIAL APPROPRIATIONS

The Millowners' Association submitted that in the Tariff Order for TPC for FY 2003-04 and FY 2004-05, the Commission had ruled that amount kept in various funds and reserves with TPC like the Contingency Reserve, Debenture Reserve, Deferred Taxation Liability Fund, Consumer Benefit Account, etc., can be appropriated to meet the gap between the Clear Profit and Reasonable Return. The Millowners' Association submitted that the amounts to the credit of all these reserves should be fully drawn down to met the gap, if not done so till now.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission agrees with this view and had undertaken truing up of the actual revenue gap/surplus revenue for FY 2005-06 and has adjusted the approved un-recovered revenue gap during FY 2005-06 against the available reserves while determining the ARR of TPC-D for FY 2006-07, in accordance with the principles set out in the previous Tariff Orders of the Commission for TPC. The issue of drawal of reserves and the principles adopted by the Commission for doing so have been elaborated in detail in the Commission's previous two Tariff Orders for TPC, as well as the Commission's Order on the Review Petition filed by TPC in Case No. 47 of 2006.

2.2 ADDITIONAL TIME FOR COMMENTS/SUGGESTIONS

Shri. Rakshpal Abrol of Bombay Small Scale Industries Association (BSSIA) submitted that as per provisions of MERC (Conduct of Business) Regulations, 2004, the time frame for inviting comments from the public should be three weeks for publication of Petition in two Daily newspapers in English Language and two Marathi newspapers. Shri. Abrol and Shri Mahesh Bharbhaya submitted that the time frame of three weeks given by the Commission for receiving comments/suggestions from the public is totally inadequate. Hence, they requested the Commission to postpone the Public Hearing, as it is not feasible to carryout the studies of Multi Year Tariff in detail within the prescribed time span.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The public notice was published on February 28, 2007 and the public hearing was held on March 20, 2007. Adequate time has been provided to stakeholders to submit their views/suggestions before the Public Hearing and additional time of 7 days was also provided to file rejoinders by March 27, 2007.

2.3 DPR FOR PUBLIC SCRUTINY

Shri. Rajiv Sharma opined that as the DPR has a direct correlation with ARR it should also be placed in public domain. Shri. Sharma requested the Commission to direct TPC to provide copies of DPR submitted for construction of coal based generating station (Unit 8), Captive coal berth at Trombay, and other schemes involving aggregate capital expenditure of more than Rs 50 Crore, so that the costs and assumptions given for the purposes of DPR can be compared with the costs given in the MYT proposal.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission accords the approval to the Capital Expenditure Schemes of Generating Companies and Licensees separately upon detailed scrutiny of DPR submitted for every scheme with capital expenditure of more than Rs 10 Crore.

The Commission's records including the Petitions filed and documents submitted by Petitioners are in the public domain and can either be inspected or obtained by interested parties, on payment of the requisite fees and charges.

2.4 POWER PURCHASE

BEST submitted that TPC-D's Petition does not contain any purchases being made from other sources on behalf of BEST. Thus, BEST presumed that since TPC-G has shown higher allocation to BEST for all the three years, TPC-G would be in a position to supply power from its own generation.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission has dealt with the issue of apportionment of generation from TPC-G in its Order on Multi Year Tariff Petition of TPC-G in Case No. 72 of 2006. As regards the purchase of power by TPC-D on behalf of BEST, the Commission is of the opinion that all the Distribution Licensees have to make their own arrangements for procurement of power.

2.5 INCREASE IN TARIFF

The Millowners' Association, Mumbai (MOA) submitted that the proposed increase in tariff for HT consumers such as industries, commercial organisations and textile mills is very harsh. MOA further submitted that due to the proposed increase in Demand charge i.e. increase from Rs 374/kVA (i.e., equivalent to 59 paise/kWh) and Energy charges from 315 Paise/kWh to 447 Paise/kWh; the effective tariff increase would be around 20%. Further, MOA submitted that the increase of 20% is very high considering the present inflation rate which is less than 7% (expected to come down due to various measures initiated by the Central Government).

TPC's Response

TPC-D appreciated the concern of MOA and submitted that it has endeavoured to keep the tariff hike to the minimum. TPC-D submitted that the reasons for tariff hike is due to expenditure on account of fuel prices, power purchase price and also trends in CPI. Further, TPC submitted that a large portion of the gap (Rs 88 Core) has also arisen due to un-recovered FAC of FY 2006-07. TPC contended that it has attempted to recover the gap between ARR and the revenue at existing tariff over a two year period (i.e. Fy2007-08 and FY 2008-09) to minimise the impact of tariff hike on the consumers.

Commission's Ruling

The Commission observes that tariff is not influenced by inflation alone but by a host of specific factors, with fuel cost being one of the major factors. The Commission's views on category-wise tariffs including tariff determination for FY 2007-08 are elaborated in Section 6 of the Order.

2.6 COST OF SUPPLY AND TARIFF PROPOSAL OF RAILWAYS

Central Railways submitted that TPC-D has not provided the Cost of Supply in their Tariff Proposal. Central Railways further submitted that the tariff proposal of TPC-D does not have any correlation to the cost to serve for supply to it.

Further, Central Railways requested to reduce the tariff charged to it on account of low cost of supply to it and the same voltage level of supply at which SEBs obtain power from NTPC. Thus tariff charged to Railways should be determined keeping in mind the cost of power purchase by SEB/Discoms from Central Generating Stations and the transmission charges.

TPC's Response

TPC-D submitted that it has abided by the directions of the Commission with regards to the content of information to be submitted. In this respect, TPC-D has dully filled in all the required formats for the acceptance of the Tariff Proposal. TPC-D further contended that the cost of service has not been submitted by any Distribution Licensee in Maharashtra as a part of MYT ARR submission Proposal. TPC-D submitted that it agrees that cost to serve should be kept in mind while deciding the tariff to a particular category of consumer, which is also a requirement of EA 2003. TPC-D submitted the computation of average cost of supply based on the ARR document and Form 13 of the submissions and observed that tariff charged to Central Railways is lesser than the Average Cost of Supply.

TPC-D submitted that tariff in case of TPC is primarily high as fuel mix is biased towards oil in Trombay generation to comply with the pollution limits. TPC-D contended that a comparison with tariffs elsewhere and linking it to cost of generation from Central Generating Stations would not be correct.

Commission Ruling

The Commission has reduced the tariff for Railways; the Commission's views on category-wise tariffs including tariff determination for FY 2007-08 and cross-subsidy are elaborated in Section 6 of the Order.

2.7 TIME OF DAY TARIFF (TOD)

MOA submitted that the proposed increase in TOD tariff from 1800 hours to 2200 hours at the rate of 60 Paise/kWh would be harsh to the consumers.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission's views on category-wise tariffs including TOD Tariffs for FY 2007-08 are elaborated in Section 6 of the Order.

2.8 REBATE

MOA submitted that TPC-D should introduce power factor rebate and bulk consumption rebate.

TPC-D's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission's opinion on Rebates is elaborated in Section 6 of the Order.

2.9 NEW CATEGORY OF HT SINGLE POINT SUPPLY

M/s Reliance Energy Limited (REL) submitted that TPC-D has proposed a separate category "HT Industrial & Non-Industrial- Single Point Supply" through "Franchisee Route" and has also proposed a tariff for this category. REL contended that as per Hon'ble Supreme Court's interim Order, TPC-D cannot supply to any new consumers, therefore no new categories should be created. Further, REL submitted that a "Franchise" as proposed by TPC-D appears to be an agent of TPC-D, serving TPC-D's consumers under proviso seven of section 14 of the Electricity Act, 2003. Therefore, such an agent can only be paid remuneration for services and cannot be classified under a separate tariff category.

REL submitted that introduction of new category "HT Residential Bulk Supply" will amount to cluster of different ownership, redistribution of energy and resale of energy that requires distribution licence. REL contended that such a practice has not been followed in Mumbai so there is no need for such an additional tariff category.

TPC's Response

TPC-D submitted that the issue of TPC-D's Licence is pending with the Hon'ble Supreme Court of India and the MYT Order to be issued by the Commission would be applicable for at least one year from 1st April, 2007. TPC-D submitted that it expects a favourable judgement from the Hon'ble Supreme Court in near future, which would uphold TPC-D's right to distribute power in its licence area. TPC-D contended that the Order issued by the Hon'ble Supreme Court would be binding on all the parties including the Commission as well as TPC-D.

TPC-D submitted regarding "HT Residential Bulk Supply" that all licensees have already such an arrangement and Ministry of Power (MoP) Order dated 9th June, 2005 clearly endorsed such an arrangement. Further, TPC-D submitted that once the Hon'ble Supreme Court establishes the TPC-D's right as Distribution Licensee, TPC-D would like to supply consumers under this arrangement.

Commission's Ruling

The Commission has determined the retail tariffs applicable in TPC license area, without prejudice to the Appeal before the Hon'ble Supreme Court, since no stay has been granted on TPC's functioning as a distribution licensee. The Commission's views on the matter of consumer categories and category-wise tariff determination for FY 2007-08 are elaborated in Section 6 of the Order.

2.10 TARIFF FOR NEW CATEGORY

REL submitted that TPC-D in its Petition has stated that it would seek to offer charging new retail industrial and commercial consumers at their actual demand during their first year of operation as against the present structure where at least 50% of the Maximum Demand Charge is to be charged to all consumers. REL submitted that the fixed cost incurred by the Distribution Licensee including laying network is for meeting the full contract demand and that the existing provision of Billing Demand having one of the provision of charging at 50% of Contract Demand takes care of such conditions.

TPC's Response

TPC-D submitted that no new consumer can pick up load from the first day of operation and the load pick up is gradual. As a result, TPC-D may take advantage of this situation by extending temporary supply during construction period when load is less than 100 kVA and then insisting on continuing to supply to the consumer as the supply exists at the premises through final load could be much more than 1000 kVA. TPC-D contended that its proposal is to take care of such a situation when load during construction stage is less than 1000 kVA.

Commission's Ruling

The Commission does not find any merit in TPC's proposal, and has not modified the Billing Demand definition.

2.11 CROSS SUBSIDY

MOA submitted that if any category of consumer has been called upon to cross-subsidise another category, then such cross-subsidisation should be disallowed as it is in contravention of the basic principle of the Electricity Act, 2003.

TPC's Response

TPC has not responded to this objection.

Commission's Ruling

The objection is incorrect, as the EA 2003 clearly recognises the existence of cross-subsidy, and the fact that reduction and elimination of cross-subsidy will take time. The Commission's views on the matter of category-wise tariff determination for FY 2007-08 and cross subsidy are elaborated in Section 6 of the Order.

2.12 RENT FOR CONSUMER SPACE UTILISED BY TPC-D

Shri. Ponrathnam queried the basis of computation of rent for the consumer's space utilised by TPC-D for its own sub-stations.

TPC's Response

TPC-D submitted that substation area is not included under BMC rules in FSI. TPC-D pays rent for the space utilised for the substation on the basis of agreement with the consumer.

2.13 BASIS OF DIFFERENTIATION OF ELECTRICITY CHARGES AMONG CONSUMERS

Shri. N Ponrathnam queried the basis of differentiation of electricity charges between industry, commercial establishments, Heavy industry, Commercial Complexes and Residential Complexes. Also, he queried the levy of fixed charges for connection and Demand charges for any installation.

TPC-D's Response

TPC-D submitted that Fixed/Demand charges are for recovery of expenditure against the electrical installation for the consumers and are based on network expenditure by TPC-D for a particular category of consumers.

TPC-D submitted that as Distribution system is highly capital intensive, the tariff approved by the Commission is based on a structure by which energy consumption and the recovery of fixed cost is made through appropriate charges. TPC-D further submitted that it is not aware of any such regulation which does not allow charging Demand Charges below 150 kW.

Commission's Ruling

The Commission's views on the matter of category-wise tariff determination for FY 2007-08 are elaborated in Section 6 of the Order.

2.14 CONSUMER CATEGORISATION

Bombay Small Scale Industries Association submitted that the consumer categories must be made as per MERC (Electricity Supply Code & Other Conditions of Supply) Regulation 2005 and MERC (Standard of Performance of Distribution Licensees period for giving supply and Determination of Compensation) Regulations, 2005 both dated January, 20, 2005.

TPC-D's Response

TPC has not responded to this objection.

Commission's Ruling

The Commission's views on the matter of consumer categories and category-wise tariff determination for FY 2007-08 are elaborated in Section 6 of the Order.

3 PERFORMANCE REVIEW FOR FY 2006-07

TPC, in its MYT Petition for its Distribution Business (TPC-D) for the first Control Period from FY 2007-08 to FY 2009-10, submitted the performance for FY 2006-07 based on actual performance for the first half of the year, i.e., April to September 2006 and revised estimated performance for the second half of the year, i.e., October 2006 to March 2007. TPC-D compared each element of cost with that approved by the Commission in its Order dated October 3, 2007 on TPC's ARR and Tariff Petition for FY 2005-06 and FY 2006-07.

As regards to treatment of revenue for FY 2006-07, TPC submitted that it has considered the revenue in two parts, viz.,

Part 1: April 06 to Sept 06 - Revenue based on integrated tariff for TPC's consumers as per Tariff Order dated June 11, 2004

Part 2: Oct 2006 onwards - Revenue based on independent tariff for Generation, Transmission, and Distribution business of TPC as per Tariff Order dated October 3, 2006

TPC submitted that as the revised Tariff Order is effective from the month of October 2006, it would not be possible to segregate the revenues amongst the three businesses to provide a complete picture of the performance of FY 2006-07 and the resultant gap/surplus. Therefore, the Aggregate ARR and Revenue Gap of TPC based on revised estimates for FY 2006-07 has been detailed in the MYT Petition of the Distribution Business of TPC (TPC-D).

The Commission has discussed TPC-D's expenditure during FY 2006-07 based on half year actuals and revised estimates for second half of FY 2006-07, as FY 2006-07 is the base year for the first Control Period. However, the Commission will undertake the truing up of ARR and Revenue for FY 2006-07 only after the audited accounts of TPC for FY 2006-07 are available, i.e., during Annual Review of Performance for the first year of the Control Period, i.e., FY 2007-08.

3.1 SALES

TPC submitted that the revised estimated sales for FY 2006-07 is 2551 MU as against the approved sales of 2365 MU. TPC submitted that the variation in sales is primarily on account of a large increase in sales in the CPP category due to HPCL reducing their generation from captive DG set and drawing power from TPC-D. Subsequently TPC submitted that the actual sales during FY 2006-07 was 2546 MU.

3.2 ENERGY REQUIREMENT, POWER PURCHASE COSTS AND REVENUE

TPC submitted that the Commission has introduced the concept of unified Intra State Transmission System, which has been made effective since October 1, 2006. TPC further submitted that the tariff structure, revenue recovery and treatment between the various functions of TPC and the relationship of TPC with REL and BEST has also undergone a change based on Commission's Tariff Order dated October 3, 2006 on ARR and Tariff Petitions of TPC for FY 2005-06 and FY 2006-07.

TPC submitted that for the first six months of FY 2006-07, it was operating with an integrated retail tariff and providing power for meeting the requirements of all the three Distribution Licensees, including through power purchase from MSEDCL and other sources. In the second half of FY 2006-07, TPC-G has been selling power to all Distribution Licensees including TPC-D and in addition, TPC-D is purchasing the balance requirement of the Mumbai Distribution Licensees, i.e., BEST, REL and TPC-D from MSEDCL and other sources.

TPC submitted that the above change has resulted in a need to compute the energy requirement for first half and second half in a differential manner. For first half, TPC has submitted the details of total energy requirement, power purchase costs and revenue for integrated business of TPC, while for second half of the year, TPC has separately projected the energy requirement, power purchase costs and revenue for TPC-D Business.

The Commission will undertake the truing up of energy input requirement, Power Purchase Cost and Revenue of TPC for FY 2006-07 based on audited accounts during Performance Review for the first year of Control Period, i.e., FY 2007-08.

3.3 O& M EXPENSES

The revised O&M Expenditure for FY 2006-07 is estimated at Rs 30 Crore as compared to Rs 24 Crore filed in the ARR Petition for FY 2006-07 and Rs 22 Crore approved in the Order. The various components of O&M Expenses are elaborated below:

3.3.1 Employee Expenses

TPC submitted that the total employee related expenses for FY 2006-07 is estimated at Rs 13 Crore against Rs 10 Crore approved by the Commission. TPC submitted that this increase is mainly due to application of Accounting Standard AS 15 (Revised) in place of AS 15 to account for 'Retirement Benefits', which has resulted in the following revision in employee expenses:

- Inclusion of various employee benefits such as long service awards, retirement gifts, death in service schemes, hospitalisation schemes, post retirement medical schemes, etc., under the purview of employee expenses to be accounted for.

- Assessment of accumulated leave liability based on Cost to Company rather than 'Basic + Dearness Allowance'

TPC has submitted that the difference in liability due till March 31, 2006 based on old AS-15 and Revised AS – 15 has been adjusted against the General Reserves of the Company. TPC has adjusted Rs 55.45 Crore of General Reserves, resulting in a corresponding erosion of the net worth of its shareholders. TPC has proposed to recover the same as prior period adjustment and requested the Commission to approve the amortization of this amount over a period of three years. The annual charge to be amortised for TPC-D works out to Rs 1.20 Crore for FY 2006-07.

TPC further submitted that the power sector is facing challenges from the existing and new players in the business, which has resulted in increased compensation packages. TPC has increased manpower costs at a CAGR of 2.9% in the previous 5 years which is less than the inflation rates. In view of the above, TPC has requested the Commission that there is an urgent need to correct the compensation packages to retain the experienced manpower. The summary of employee expenses is given in the following Table:

Table: Employee Expenses (Rs Crore)

Particulars	FY 07		Rev. Est for FY 07		
	Original Petition	**Order**	**Actuals (April - Sept 06)**	**Projected (Oct - Mar 07)**	**Total**
Employee Expenses	11	10	6	7	13

The Commission has not considered the impact of revised AS-15 as applicability of AS-15 (revised) has been deferred upto FY 2007-08 as per the latest announcement of ICAI. Further, valuation of leave encashment is not certain and depends on the method followed by the organisation.

3.3.2 A & G Expenses

TPC submitted that the total A&G expenses for FY 2006-07 is estimated at Rs 14 Crore against Rs 9 Crore approved by the Commission.

The summary of A&G expenses is given in following Table:

Table: A & G Expenses (Rs Crore)

Particulars	FY 07		Rev. Est for FY 07		
	Original Petition	**Order**	**Actuals (April - Sept 06)**	**Projected (Oct - Mar 07)**	**Total**
TPC -D	10	9	7	7	14

3.3.3 R&M Expenditure

TPC submitted that the total R&M expenses for FY 2006-07 is estimated at Rs 4 Crore as against the R&M expenses of Rs 3 Crore approved by the Commission.

3.4 DEPRECIATION

TPC submitted that the depreciation expenditure for FY 2006-07 is estimated at Rs 14 Crore as against Rs. 12 Crore approved by the Commission.

3.5 INTEREST EXPENSES

TPC has estimated the interest expenses under the following three heads:

- Interest on debt
- Interest on working Capital
- Interest and Finance Charges

TPC submitted that interest on debt for FY 2006-07 has been computed based on interest on normative loans for previous years and actual loan for 70% of the expenditure to be capitalised in FY 2006-07. TPC has raised a loan of Rs 450 Crore from IDFC to fund its current capital expenditure with the following terms:

- Tenor : 12 years with 3 year moratorium and 9 years repayment
- Interest Rate : 5 year G-Sec rate +1.45% p.a. subject to minimum of 8.90%.

TPC submitted that the interest on debt for FY 2006-07 is estimated at Rs 7 Crore as against Rs 2 Crore approved by the Commission.

As regards the Working Capital, TPC submitted that the interest rate specified under the Tariff Regulations for Working Capital, i.e., Short Term PLR of SBI, has been varying across the year as follows:

Month	**PLR**
April - May	10.25%
May – August	10.75%
August – 27th Dec	11%
27th Dec onwards	11.5%

TPC has estimated the Interest on Working Capital (IWC) considering interest rate @ 11% as per the components considered in the Tariff Regulations, with the revised Interest on Working Capital estimated at Rs 6 Crore.

TPC has estimated the finance charges at Rs. 0.30 Crore as against the Rs. 0.02 Crore estimated at the time of the filing.

The Commission will undertake the truing up of interest expenses, based on audited accounts, during first performance review considering the following aspects:

- Capex Schemes approved
- Actual Capex and capitalization during the year

Further, Working Capital computation as per the norms will change based on truing up of other components of ARR on the basis of audited accounts and prudence check. Truing up of IWC due to change in working capital computation as well as change in PLR will be done based on Performance Review of actual performance for the entire FY 2006-07 for the first year of Control Period, i.e., FY 2007-08.

3.6 CONTRIBUTION TO CONTINGENCY RESERVE

TPC submitted that the Statutory Appropriation towards the Contingency Reserve for FY 2006-07 was considered as nil at the time of filing the ARR Petition for FY 2006-07 as the limit specified in the Tariff Regulations had been reached. However, the Commission has adjusted the un-recovered fuel expenditure of FY 2005-06 against this reserve held by TPC in its Tariff Order dated October 3, 2006. TPC has hence, considered this appropriation towards contingency reserve as allowed under the Tariff Regulations at 0.5% of the GFA, which works out to Rs. 2 Crore.

3.7 INCOME TAX

TPC submitted that the income tax as per the provisions of the IT Act 1961 works out to Rs. 7 Crore as against the earlier estimate of Rs. 13 Crore, and the Commission's approval of Rs. 9 crore.

3.8 RETURN ON EQUITY

TPC submitted that the RoE as per the projected capitalisation and considering 70:30 debt:equity ratio is estimated to be around Rs. 23 crore as against Rs 19 Crore approved by the Commission.

3.9 NON TARIFF INCOME

TPC submitted that the non tariff income for FY 2006-07 is estimated at Rs 0.86 Crore as against Rs 2.34 Crore estimated at the time of the filing and Rs. 3 crore projected by the Commission, on account of loss of income from the statutory reserves that have been adjusted by the Commission in its Order dated October 3, 2006 on ARR and Tariff Petition for FY 2005-06 and FY 2006-07.

To sum up, the Commission will undertake the truing up of expenditure and revenue heads for FY 2006-07, based on audited accounts during Performance Review for the first year of Control Period, i.e., FY 2007-08.

4 MULTI-YEAR TARIFF FRAMEWORK AND PERFORMANCE TRAJECTORY

4.1 CONTROL PERIOD

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

4.2 PERFORMANCE PARAMETERS

Regulation 16.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates,

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

The Commission has decided that the MYT framework for TPC-D would incorporate the performance trajectory of distribution losses, as this is one of the most important performance parameters of a distribution licensee's performance.

4.2.1 Distribution Losses

The Commission has considered the distribution losses of 2.93% for the Control Period, in accordance with the loss level approved for FY 2006-07, and the actual distribution losses reported by TPC.

4.3 ANNUAL REVIEW

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

> *Where the aggregate revenue requirement and expected revenue from tariff and charges of a Generating Company or Licensee is covered under a multi-year tariff framework,*

then such Generating Company or Licensee, as the case may be, shall be subject to an annual performance review during the control period in accordance with this Regulation.

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

4.4 CONTROLLABLE AND UNCONTROLLABLE FACTORS

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

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

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

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

Regulation 17.6.2 stipulates the following factors as controllable factors:

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

4.5 SHARING OF GAINS AND LOSSES

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

> *"Any approved aggregate gain or loss to the Generating Company or Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or Licensee over such period as may be specified in the Order"*
>
> *Any approved aggregate gain to the Generating Company or Licensee on account of controllable factors to be dealt with in the following manner:*
>
> *(a) One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order…;*
>
> *(b) In case of a Licensee, one-third of the amount of such gain shall be retained in a special reserve for the purpose of absorbing the impact of any future losses on account of controllable factors…:*
>
> *(c) The balance amount of gain may be utilized at the discretion of the Generating Company or Licensee.*
>
> *Any approved aggregate loss to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:*
>
> *(a) One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10; and*
>
> *(b) The balance amount of loss shall be absorbed by the Generating Company or Licensee.*

4.6 ANNUAL TARIFF DETERMINATION

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

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

(a) The approved forecast of aggregate revenue requirement and expected revenue from tariff and charges for such financial year, including approved modifications to such forecast; and

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

5 ANNUAL REVENUE REQUIREMENT OVER MYT CONTROL PERIOD

TPC has given details of sales forecast, expenses of its distribution business (TPC-D) under various heads, viz., O&M expenses, depreciation, interest on loans, etc., estimated revenue at existing tariffs and proposed tariff as per the data formats prescribed by the Commission.

5.1 SALES PROJECTIONS

TPC, in its MYT Petition for the first Control Period, submitted that the retail consumer base of TPC-D comprises Railways, Textiles, Industrial, Commercial and Residential consumers and it has been observed from past experience that the historical trend method has proved to be a reasonably accurate estimation for forecasting the load of TPC consumers. TPC submitted that the analysis of historical category-wise sales reveals the following:

- Consumption by HT Industrial consumers and textiles has been declining rapidly over the years due to the shift of industrial units from Mumbai and closure of textile mills and the declining trend in HT sales is expected to continue during the first Control Period
- Sales to LT consumers (including LT1, LT2 and residential consumers with demand below 1 MVA) were steadily increasing over the past 5 years, however, the growth rate is not expected to continue as TPC-D has been restrained by the Commission to supply to customers below one MVA.
- CPP category has shown an upswing on account of HPCL’s reduction in consumption from its captive generating plant and sourcing entire power from the TPC as well as expected increased consumption on account of refinery expansion programme. The likely demand addition is of the order of 50 MW on this account.

TPC projected the sales for FY 2007-08, FY 2008-09 and FY 2009-10 based on the CAGR in sales to Railways and HT Industrial consumers during the past few years and considering the addition of new consumers. TPC projected sales to HT Commercial consumers and Retail consumers based on an average growth of 5%, rather than the past CAGR as the sales during last 2-3 years has seen extensive growth.

The Commission has analysed the actual category wise sales over the period from FY 2001-02 to FY 2006-07 and the summary of the same is given in the following Table:

Category-wise Sales from FY2001-02 to FY 2006-07 (MU)

	FY 02	FY 03	FY 04	FY 05	FY 06	FY07	5 years CAGR
Railways	**712**	**736**	**753**	**782**	**766**	**801**	2.38%
HT Consumers	**527**	**488**	**508**	**528**	**531**	**592**	2.35%
HT Industries	467	431	442	445	415	318	-7.38%
HT Commercial	60	57	66	83	116	274	35.45%
Public Services	230	237	250	255	256	257	2.28%
CPP	9	8	8	21	61	168	79.51%
Textiles	494	455	364	294	248	192	-17.20%
LT 2 Part	**50**	**85**	**143**	**209**	**273**	**338**	**46.59%**
Industries	15	23	29	35	39	47	25.75%
Commercial	35	62	114	174	234	291	52.78%
LT 1 Part	**33**	**59**	**99**	**122**	**136**	**126**	**30.74%**
Industries	7	17	42	49	51	46	45.83%
Commercial	26	42	57	73	85	80	25.17%
Residential	**16**	**29**	**45**	**58**	**65**	**72**	**35.03%**
Total	**2071**	**2097**	**2170**	**2269**	**2336**	**2546**	**4.22%**

Considering the past trends in category-wise sales and TPC's sales projections for FY 2007-08, FY 2008-09 and FY 2009-10, the Commission has projected sales for the first year of the first Control Period for all consumer categories based on 5 year CAGR for all the categories, except CPP. The Commission has accepted TPC's projection for CPP on account of expected increased consumption as a result of refinery expansion plan. The summary of sales projected by TPC and as approved by the Commission for the first year of the first Control Period, i.e., for FY 2007-08 is given in the following Table:

Category-wise Sales for FY2008-09 (MU)

Particulars	FY08 TPC	FY08 Commission
Railways	**825**	**820**
HT Consumers	**1212**	**1256**
HT Industries	426	295
HT Commercial	192	370
Public Services	267	263
CPP	327	327
Textiles	124	159
LT 2 Part	**323**	**438**
LT2P -Industries	42	59
LT2P -Commercial	281	379
LT 1 Part	**161**	**167**
LT1P -Industries	61	67
LT1P -Commercial	100	100
Residential	**82**	**97**
Total	**2726**	**2937**

The total sales approved by the Commission for the first year of the first Control Period i.e. for FY 2007-08 is 2937 MU as against sales of 2726 MU projected by TPC.

5.2 DISTRIBUTION LOSSES AND ENERGY REQUIREMENT

TPC, in its Petition, submitted that about 80% of TPC-D's sales are to HT consumers which are connected at a voltage level of 22 kV and above and therefore, the commercial losses in TPC-D are expected to be minimal. TPC further submitted that it is in the process of providing meters for metering the actual consumption of TPC-D at T-D interface. In the absence of this metering, TPC has assumed the distribution loss of 2.93% at the same level as approved by the Commission in its Tariff Order for FY 2006-07.

TPC submitted that the transmission losses of the Intra State transmission system has to be approved by the Commission for each year of the Control Period and pending such approval, TPC-D has assumed the existing approved loss level of 4.85% for FY 2006-07 to estimate the energy requirement of TPC-D during the Control Period.

As discussed in Section 4, the Commission has approved the Distribution loss of 2.93% for TPC-D for the Control Period. The Commission vide its Order dated April 2, 2007 in

Case No. 86 of 2006 on determination of Transmission Tariff for the Intra-State Transmission System has approved the Intra State Transmission losses of 4.85% for FY 2007-08.

The summary of Energy Input projected by TPC-D and approved by the Commission for FY 2007-08 is given in the following Table:

Table: Energy Input for FY 2007-08

		TPC-D	Approved
Projected Sales	MU	2726	2937
Distribution Loss	%	2.93%	2.93%
Energy Input at DISCOM boundary	MU	2808	3026
Transmission Loss	%	4.85%	4.85%
Total Energy Input Reqmt	**MU**	**2952**	**3180**

5.3 POWER PURCHASE COST

TPC-D in its Petition submitted that the energy requirement is proposed to be met from the following sources:

- TPC-G : Proportion of energy generation based on a share of 477 MW from the existing capacity of TPC-G and 50 MW from Unit 8
- Share of TPC-G capacity for REL/BEST – During the period when the load of TPC-D is higher than the share of TPC-D, the spare capacity available with BEST/REL after meeting their requirement would be shared with TPC-D to meet its load. Such purchase by TPC-D has been considered as inter-se purchase at marginal price
- Renewable Power Obligations (RPO) – 4% of total energy requirement for FY 2007-08, which is proposed to met from purchases from TPC Supa plant and new wind capacity
- External Power Purchases/sales to match the energy balance

TPC-D has estimated the Power Purchase cost based on following assumptions:

- TPC-G : Annual Fixed Charges and Energy Charges as estimated by TPC-G in its MYT Petition
- RPS – Based on Commission's Order dated November 24, 2003 as the Supa Wind Project and new wind project is in Group III project

- External Power Purchase – Tariff form external sources is highly unpredictable and in view of the likely future deficit, tariff assumed to increase by 5% per annum. For FY 2007-08, TPC projected a rate of Rs 5.50/kWh for Inter-se/External Purchases.

The Commission has considered the net energy available and cost of purchase of power from TPC-G in accordance with the Commission's Order dated April 2, 2007 on TPC-G's MYT Petition. The Commission in the said Order stated:

> *"In the absence of approved PPAs, for FY 2007-08, the Commission has allocated the total power available from TPC-G in proportion to Coincident Peak Demand of the three Distribution Licensees. In case of REL, the peak demand of REL is met partly from REL-G Dahanu Generating Station and partly through supply of power by TPC-G and other sources. Therefore, the Commission has considered the share of average coincident peak demand of the three Distribution Licensees, i.e., TPC-D, REL-D and BEST met by TPC during FY 2005-06, for allocating the power generated by TPC-G to the distribution licensees.*
>
> *This interim arrangement for allocation of net energy available and fixed charges for TPC-G amongst the Distribution Licensees will be applicable only for the first year of the Control Period, i.e., FY 2007-08. For FY 2008-09 and FY 2009-10, the Commission will approve the allocation of net energy available and fixed charges for TPC-G based on approved Power Purchase Agreements (PPAs) between TPC-G and three Distribution Licensees."*

As the mechanism of net energy allocation from TPC-G stations and fixed charges of TPC-G is likely to undergo modification in FY 2008-09, the Commission in this Order has approved the Energy Input and Power Purchase Cost only for the first year of the Control Period, i.e., FY 2007-08.

The summary of projected power purchase quantum and cost for purchase of power by TPC-D from TPC-G is given in the following Table:

Table: Energy and Variable Cost for Purchase of Power from TPC-G inFY 2007-08

	Quantum	**Var. Cost**
	MU	**Rs Crore**
Unit 5, 6 and 7	1795.5	513
Unit 4	174.5	92
Hydel	302.4	55.2
Total	**2272.4**	**660.4**

Table: Other Costs for Purchase of Power from TPC-G from FY 2007-08

Description	**Rs Crore**
Fixed Charges-Thermal	100.11
FAC Under-Recovery	72.52
Incentive at Projected Generation	5.27
Less Rebate - Hydel Excess Recovery	14.65
Total	**192.54**

Based on total energy input approved by the Commission, the RPS obligation of TPC-D for FY 2007-08 works out to 127.2 MU and the total cost of meeting the RPS obligation works out to Rs 45 Crore.

After considering the energy availability from TPC-G and RPS obligations, the balance energy requirement of TPC-D is to be met by power purchase from external sources. The total power purchase quantum for FY 2007-08 from outside sources works out to 780 MU.

TPC-D submitted a Petition for approval of Short Term Power Purchase during the period April to June 2007 from Tata Steel at Jamshedpur through M/s Tata Power Trading Company Limited. TPC, in this Petition, requested the Commission to approve purchase of 60 MW power on 'round the clock' basis from April 1 to April 7, 2007, April 20 to April 30, 2007, May 2007 and June 2007 at a rate of Rs 5.14/kWh between 17.00 to 23.00 hours and Rs 4.94/kWh between 00.00 to 17:00 hours and 23:00 to 24:00 hours at the delivery point in Jharkhand. The Commission asked TPC-D to submit the basis of power purchase rate and estimated transmission losses, open access charges and estimated landed cost of power. TPC, in its reply, submitted that the landed cost of this short term power during peak and off peak period is estimated at Rs 6.12/kWh and Rs 5.88/kWh, respectively.

The Commission observed that the short term purchase rate submitted by TPC for proposed short term power purchase during April to June 2007 is higher than the rate considered by TPC in its Petition. However, as the PP from external sources is approved for the entire year and the rate will vary depending upon the demand supply situation in various months of the year, the Commission has considered the rate of Rs 5.50/kWh as estimated by TPC in its MYT Petition for estimating the cost of power purchase from external sources.

The summary of total power purchase cost as projected by TPC-D and as approved by the Commission for FY 2007-08 is given in the following Table:

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

Source	TPC-D	Approved
TPC-G	1103	823.6
RPS	42	45.0
External Sources	75	429
Total	**1220**	**1298**

Of the above, the Commission has considered the power purchase from Unit 4 of TPC-G and external sources as costly power purchase. The summary of purchase cost from costly sources of power as approved by the Commission for FY 2007-08 is given in the following Table:

Table: Summary of Costly Power Purchase in FY 2007-08 (Rs Crore)

Source	Quantum (MU)	Variable Cost
TPC-G (Unit 4)	174.5	92
External Sources	780	429
Total	**954.5**	**521**

5.4 DSM MECHANISM FOR TPC-D

Traditionally, distribution licensees have responded to their consumers' rising electricity demand or to rising gap between the electricity demand and supply through supply side options such as increasing the electricity purchases from outside sources and/or reducing the distribution losses. Hitherto, distribution licensees have ignored the demand side options. Demand side options involve reducing the demand for electricity by implementing suitable Demand Side Management (DSM) initiatives that call for adoption of energy conservation (EC) and energy efficiency improving (EE) measures and practices by consumers of electricity that result in saving of electricity consumption and reducing demand for electricity. Since electricity saved is better than electricity generated or purchased, any saving in electricity consumption or demand achieved as a result of DSM initiatives, directly contributes to balancing the electricity demand-supply equation.

Demand side options are more economical, environmentally more benign and are fast acting and hence, more sustainable. Whereas, it costs Rs. 4 crore to create/add one MW of generation capacity, it usually costs any where between Rs. 0.25 to Rs. 3 crore to save a MW of electricity at the point of use, which, translates into more than 1 MW created at the generation point, considering the network losses. Adoption of DSM initiatives also leads to reduction of green house gases which are the major cause of global warming and its attendant consequences that we are now witnessing. In addition, the gestation period for DSM initiatives is also much lower than a typical power generation capacity addition project that can take anywhere between 2 to 5 years, depending on the technology. Integrating DSM or demand side option with supply side option thus provides a least cost solution for the distribution licensees to meet the power demand emanating from their consumers.

Recognising this potential of demand side option or DSM, the Commission, in its Tariff Regulations of 2005, has treated EC and EE measures as a "supply" source and has stipulated that long-term power procurement plan of distribution licensees shall have proposals about measures proposed to be implemented as regards EC and EE [Regulation 23.2(d)]. However, none of the distribution licensees have submitted any proposals for EC and EE measures in their Multi-Year Tariff/ARR submissions. The Commission, is convinced that, had the distribution utilities integrated demand side options with supply options, the overall cost of power procurement would have been lower than what has been stated in the ARR submissions.

In the absence of detailed data and analysis, however, the Commission, at this juncture, is not in a position to arrive at the exact quantum by which power procurement cost would have been lower. Nevertheless, the Commission, being in, "in principle" agreement with the observation that consumers are having to pay higher overall cost of power procurement because the distribution licensees have ignored demand side options, and that too despite Commission's Tariff Regulations explicitly providing for consideration of such options; the Commission has assumed that 2% of the costly power purchase requirement will be reduced through DSM measures. This translates to Rs. 10.42 crore, which is only 0.8 percent of the total power purchase cost. This, the Commission believes, will encourage TPC-D to speedily take up EC and EE to reduce their overall demand and thus, reduce their need for costly power purchase. However, it is the obligation of the distribution licensee to meet all the demand in its license area, and licensees should not undertake load shedding in their area by reducing power purchase.

In line with National Electricity Policy, the Commission is committed to DSM and whereas, in the past, it had provided encouragement to the consumers to reduce their demand or reduce their demand during certain periods of the day through its tariff proclamations such as load management charge and incentive or time of day tariff; this time, the Commission, by assuming a 2% reduction in costly power purchase requirement through DSM measures, is providing encouragement to TPC-D to take up EC and EE through appropriately formulated DSM initiatives on a sustained basis and as an integral part of their operations. As has been repeatedly proclaimed by the Commission, the Commission is committed to allow as pass through in the ARR, all the cost incurred by the distribution licensees on design, development and implementation of DSM initiatives.

The Commission will revisit the power procurement plan during the Annual Review of FY 2007-08 and, in line with its Tariff Regulations, directs the distribution licensees to include measures proposed to be implemented as regards EC and EE in all its future long-term power procurement plans. The Commission reiterates its directive that TPC-D undertake design, development and implementation of DSM initiatives that provide technical and financial assistance, incentives and guidance to motivate the consumers to adopt EE and EC improving measures and practices as well as to motivate other stakeholders such as financiers, energy efficiency delivery companies and energy efficient product, process and device manufacturers to participate in the DSM initiatives.

In order to assess the impact of DSM initiatives on the overall demand for electricity and on the overall costs to be incurred to meet a particular level of consumer demand, it is essential to continuously track and monitor the extent to which load and consumption are getting affected due to DSM initiatives. Systematic load research is a key to providing this data. Load research, apart from providing data on DSM benefits, would also provide insight about consumer load profile (who are the consumers, how much are they consuming, purpose of consumption, where they are consuming and at what time they are consuming), data on cost of service, data on profitability analysis, and also help the distribution licensee in rate design, load forecasting, load control and load management. The Commission therefore, directs TPC-D to initiate systematic load research exercises on a continuous basis and to make load research an integral part of their operations.

5.5 STANDBY CHARGES

TPC, in its Petition, submitted that pending the decision of the Commission on allocation of standby charges between the three Distribution Licensees for the Control Period, the standby charges of Rs 71.9 Crore as approved by the Commission for FY 2006-07, has been assumed for each year of the Control Period.

For FY 2007-08, the Commission has allocated the standby charges between the three Distribution Licensees in Mumbai in proportion to the coincident peak demand for the last one year and the standby charges allocated to TPC-D works out to Rs 62 Crore. TPC-D will hence, pay standby charges of Rs 62 Crore during FY 2007-08.

5.6 TRANSMISSION CHARGES

TPC, in its Petition, submitted that the transmission charges shall be payable based on TPC-D's share of the common Intra State Transmission costs as approved by the Commission. TPC has estimated the transmission charges for the Control Period by assuming an escalation of 5% over the value approved for FY 2006-07.

The Commission vide its Order dated April 2, 2007 in Case No. 86 of 2006 on determination of Transmission Tariff for the Intra-State Transmission System has approved the Transmission charges for each year of the Control Period. The total transmission charges payable by TPC-D for FY 2007-08 as approved by the Commission is Rs 53.69 Crore.

5.7 OPERATION & MAINTENANCE EXPENSES

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

Regulation 63.5.1 and 76.7.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005 stipulates:

> *"The Distribution Licensee shall be permitted to recover all reasonable and justifiable operation and maintenance expenses relating to the Distribution Business:*
>
> > *Provided that the Distribution Licensee shall submit a forecast of all such operation and maintenance expenses along with the application for determination of tariff:*
> >
> > *Provided further that such forecast shall be based on past performance and/ or operating norms and shall be supported by detailed calculations that explain the basis for such forecast:*

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

TPC has submitted O&M expenses under separate heads of R&M, Employee and Administrative & General (A&G) expenses for the first Control Period from FY 2007-08 to FY 2009-10, as given in the Table below:

All Figures in Rs Crore

O&M	**FY08**	**FY09**	**FY10**
Employee Expenses	14.41	15.11	14.82
Administration & General Expenses	12.41	13.03	13.68
Repair and maintenance	4.42	5.56	6.60
Total	**31.23**	**33.70**	**35.10**

5.7.1 Employee Expenses

TPC has provided details of the employee expenses under various heads, in accordance with the Formats stipulated by the Commission. TPC has projected employee expenses of Rs 14.41 Crore, Rs 15.11 Crore and Rs 14.82 Crore in FY 2007-08, FY 2008-09 and FY 2009-10, respectively. TPC has projected the employee expenses considering the impact of correction in compensation packages of TPC and inflation. The main heads of employee expenses are salaries and wages, dearness allowance, other allowances/bonus/benefits and terminal benefits, and amortization of expenditure towards AS-15 implementation. TPC has considered the increase in employee expense on account of AS-15 amortization to the tune of Rs 1.20 Crore for FY 2007-08 and FY 2008-09. The Commission in its Order dated March 22, 2007 in the matter of Petition filed by TPC for Review of the Tariff Order (dated October 3, 2006 in Case no 22 of 2005 and 56 of 2005) has not considered any impact on the employee expenses on this account and not granted any review of the ARR of TPC on account of AS-15 amortization. The relevant extract of this Order is given below:

> *"TPC has submitted that it had not included the impact of applicability of revised AS-15 (effective from FY 2006-07) in its ARR and Tariff Petition, which requires TPC to provide for inclusion of various employee benefits and to restate certain other employee benefits such as encashment of privilege leave and sick leave on a more conservative basis. TPC submitted that the applicability of revised AS-15 has two impacts, viz., increase in the employee expenses in FY 2006-07 by Rs. 4.67 crore, and reduction in the General Reserves by Rs. 55.5 crore. TPC has submitted that the increase in liability due to applicability of revised AS-15 and the corresponding reduction in General Reserves need to be borne by the consumers and therefore need to be passed on in the ARRs over the next three years, including FY 2006-07.*
>
> *Firstly, this cannot qualify as 'new and important evidence which has come to light subsequently', which is one of the grounds for review. This aspect could have been submitted by TPC along with the Tariff Petition for FY 2006-07. Further, the actuarial valuation of the leave encashment appears to have increased primarily on account of the shift in Company Policy to considering employee salaries on 'cost to company' basis, rather than just the applicability of the Accounting Standards.*
>
> *Moreover, recently, there has been a clarification by the ICAI that the applicability of AS-15 (revised) can be deferred upto FY 2007-08. Further, there could be differences in the treatment of the leave encashment, i.e., considering Basic plus DA or on a cost to company basis.*

Hence, for FY 2006-07, the Commission has not considered any impact of revised AS-15, and does not grant any review of the ARR of TPC on this ground."

Though the impact of AS-15 revised could be considered in FY 2007-08, the Commission has refrained from doing so at this point in time, as the valuation of leave encashment is not certain and depends on the approach followed by the Company. In case the Company decides to value the leave encashment on the basis of 'Basic plus DA', rather than on 'cost to company' basis, the impact will be lower. TPC may crystallize its Policy in this matter appropriately, keeping in mind the need for maintaining the tariffs at lower levels.

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

The Commission has thus allowed employee expenditure of Rs. 10.50 Cr, Rs 11.07 Cr and Rs 11.66 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, as given in the following Table:

Employee Expenses **(Rs Crore)**

Particulars	FY 2006-07	FY 2007-08		FY 2007-08		FY 2008-09	
	Approved	Petition	Approved	Petition	Approved	Petition	Approved
Total Employee Expense	**9.97**	**14.41**	**10.50**	**15.11**	**11.07**	**14.82**	**11.66**

5.7.2 Administration & General Expenses

TPC has projected A&G expenses of Rs. 12.41 Cr, Rs 13.03 Cr and Rs 13.68 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively. TPC has provided details of the A&G expenses under various heads in accordance with the Formats stipulated by the Commission. The main heads of A&G expenses are rent rates and taxes, cost of services procured and others.

The Commission has considered an increase of around 5.38% on account of inflation over the allowed level of gross A&G expenses in FY 2006-07, based on the increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI). The Commission has considered the point to point inflation over WPI numbers (as per Office of Economic Advisor) and CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2003-04 to FY 2005-06. The Commission has considered a weight of 60% to WPI and 40% to CPI, based on the expected relationship with the cost drivers. The Commission has thus allowed A&G expenditure of Rs. 9.66 Cr, Rs 10.18 Cr and Rs 10.73 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, as given in the following Table:.

Administrative & General Expense **Rs Crore**

Particulars	FY 2006-07	FY 2007-08		FY 2008-09		FY 2009-10	
	Approved	Petition	Approved	Petition	Approved	Petition	Approved
Net A&G Expenditure	**9.17**	**12 .41**	**9.66**	**13.03**	**10.18**	**13.68**	**10.73**

5.7.3 Repair & Maintenance Expenses

TPC has projected R&M expenses of Rs. 4.42 Cr, Rs 5.56 Cr and Rs 6.60 Cr in FY 2007-08, FY 2008-09 and FY 2009-10, respectively, which is about 1.11% of the Gross Fixed Assets (GFA) at the beginning of the year considering the past trends, age of its assets, impact of increasing requirements from consumers, the proportion approved by the Commission in the last Tariff Order and impact of inflation.

The Commission has hence, considered an increase in R&M expenditure for the first Control Period, by considering the inflationary impact of around 5.39% based on the increase in WPI over the approved gross R&M amount of Rs 2.90 Cr in FY 2006-07. The Commission has thus approved R&M expenses of Rs. 3.06 crore, Rs. 3.22 crore, and Rs. 3.39 crore, over the first Control Period.

Total O&M Expenses

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

Operation & Maintenance Expenses **Rs Crore**

Particulars	FY07 Order	FY08	FY09	FY10
Employee expenses	9.97	10.50	11.07	11.66
A&G expenses	9.17	9.66	10.18	10.73
R&M expenses	2.90	3.06	3.22	3.39
O&M expenses	**22.04**	**23.22**	**24.47**	**25.78**

5.8 CAPITAL EXPENDITURE AND CAPITALISATION

5.8.1 Capital Expenditure

The Commission under its earlier Order (Case 12 and 56 of 2005) has considered capital expenditure corresponding to non-DPR related schemes alone for FY 2006-07 and had directed TPC to submit detailed schemes related to network development activities including DPR. However, TPC had not submitted any network development related scheme except the scheme for providing 110 kV supply to HPCL. Further, during FY 2006-07, as against projected capital expenditure of Rs 24.44 Crore, TPC has so far incurred capital expenditure of Rs 10.11 Crore upto the end of third quarter (Q3) of FY 2006-07.

Over the Control Period from FY 2007-08 to FY 2009-10, TPC has projected capital expenditure of around Rs 113.33 Cr. The annual rolling plan for capital expenditure presented by TPC amounts to capital outlay of Rs 77.89 Crore, Rs 19.66 Crore and Rs 15.78 Crore in FY 2007-08, FY 2008-09 and FY 2009-10, respectively.

Further, classification of schemes involving capital outlay exceeding Rs 10 Crore (DPR schemes) and schemes involving capital outlay below Rs 10 Crore (Non-DPR schemes) is presented in the following Table. DPR schemes entail an outlay of around Rs 13.37 Crore and non-DPR schemes entail an outlay of around Rs 99.96 Crore over the Control Period as summarised in the following Table:

Scheme Description	TOTAL (DPR + Non-DPR) Schemes (Rs Cr)			
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**TOTAL**
DPR schemes	24.57#	(6.47)#	(4.73)#	**13.37**
Non-DPR schemes	53.32	26.13	20.51	**99.96**
TOTAL (DPR + Non DPR) Schemes	**77.89**	**19.66**	**15.78**	**113.33**

#TPC has submitted that negative entry towards DPR schemes (carry forward schemes) over the Control Period is on account of adjustments due to withdrawal from project stores against the approved procurement budget for earlier years.

TPC has planned capital investment in distribution in order to (i) meet the load growth in existing consumer categories; (ii) To increase efficiency and productivity; (iii) To augment/replace/retrofit old/obsolete/under-rated equipment; (iv) To meet environmental, safety and other statutory requirements; (v) To purchase routine tools and equipments; (vi) Other miscellaneous expenditure of a capital nature.

The projected capital expenditure includes two distribution schemes for providing 110 kV supply to Railways at Borivali and Parel, each involving an outlay of around Rs 17 Crore. TPC has recently submitted DPR for the same which would be taken up for scrutiny in due course. The scheme of 110 kV supply to HPCL is at an advanced stage and expected to be capitalised during FY 2006-07, hence, the Commission has considered the same to be capitalised during FY 2006-07, as proposed by TPC.

In view of above, the Commission has not considered any capital outlay towards DPR schemes over control period. The Commission notes that there are negative entries towards DPR schemes over the Control Period on account of adjustment from project stores against procurement budget of earlier years. The Commission has considered the same as submitted by TPC.

Further, the Commission would like to reiterate that in-principle approval of the scheme does not absolve the senior management of TPC of their responsibility to prioritise various schemes and undertake cost benefit analysis and financial analysis to validate the commercial prudence of each scheme. TPC should ensure that the projected benefits actually accrue for the benefit of the stakeholders. It would be essential to monitor progress of each scheme as well as track expenditure and benefits accrued as per the scheme.

Apart from above schemes, TPC has considered non-DPR related capex schemes termed as 'special projects' involving capital outlay of around Rs 5 to 7 Crore, as under:

- 22/11 kV substation at Kensington, Powai
- 2x20 MVA substation at Nirlon, Goregoan
- Procurement budget for consumer jobs
- Power supply to new consumers
- Augmentation of distribution substations
- LT load enhancement
- Augmentation of cable network
- Network development related works

While the Commission has considered capital expenditure towards augmentation works, substations at Kensington and Nirlon, activities related to existing LT load enhancement works, etc., as projected by TPC, pending submission of detailed plan for network development related activities as highlighted earlier, the Commission has not considered capital expenditure towards network development activities for the purpose of determination of ARR over the Control Period at this stage. The Commission directs TPC to submit an entire plan for network development along with justification and cost benefit analysis within four weeks from issuance of this Order. The Commission would like to highlight that Regulation 16 of MERC (Distribution License Conditions) Regulations 2004, mandates the licensee to seek approval of Network Rollout Plan and adhere to such rollout plan approved by the Commission.

As regards Non-DPR schemes, the Commission notes that TPC has projected to incur capital expenditure of Rs 23.13 Crore during FY 2006-07 towards Non-DPR schemes and actual capital expenditure incurred upto end of third quarter (Q3) of FY 2006-07 towards non-DPR related schemes is only Rs 3.57 Crore. However, TPC had projected a significant increase in capital expenditure towards Non-DPR schemes over the Control Period amounting to Rs 99.96 Crore comprising outlay of Rs 53.32 (FY 2007-08), Rs 26.13 Crore (FY 2008-09), and Rs 20.51 Crore (FY 2009-10). The capital expenditure towards Non-DPR schemes as already initiated prior to the Control Period have been considered as proposed by TPC. Further, the Commission has considered capital expenditure towards new Non-DPR schemes only to an extent of 50% of that projected by TPC. Thus, as against capital expenditure of Rs 99.96 Crore towards Non-DPR scheme projected by TPC, the Commission has considered capital expenditure of Rs 68.18 Crore over the Control Period.

The increase in quantum of Non-DPR schemes indicates an unhealthy trend, as the Commission feels that there is a tendency to split distribution scheme so that capital outlay of the scheme is below Rs. 10 Crore, to escape regulatory scrutiny. The Commission will take a review of the schemes being classified under Non-DPR category, and in case it is found that these schemes should have ideally been classified under DPR category, then that capex and the related capital charges will be disallowed till the DPR is submitted and the scheme is approved by the Commission.

The capital outlay towards DPR schemes and Non-DPR schemes over the Control Period as considered by the Commission is summarised in the following Table:

(Rs Cr)

Scheme Description	**TOTAL (DPR + Non-DPR) Schemes – (Commission)**			
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**TOTAL**
DPR schemes	(5.92)#	(6.47)#	(4.73)#	**(17.12)#**
Non-DPR schemes	38.76	18.86	10.56	**68.18**
TOTAL (DPR + Non DPR) Schemes	**32.83**	**12.39**	**5.84**	**51.06**

#corresponds to negative entry towards DPR schemes (carry forward schemes) over the Control Period on account of adjustments due to withdrawal from project stores against the approved procurement budget for earlier years, as submitted by TPC.

A comparison of capital expenditure proposed by TPC and that considered by Commission for the purpose of determination of ARR over the Control Period is given in the following Table:

Capital Expenditure (Rs Cr)

Item Description	**TPC**			**Commission**		
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**FY 2007-08**	**FY 2008-09**	**FY 2009-10**
DPR schemes	24.57#	(6.47)#	(4.73)#	(5.92)#	(6.47)#	(4.73)#
Non-DPR schemes	53.32	26.13	20.51	38.76	18.86	10.56
Total (DPR + Non	**77.89**	**19.66**	**15.78**	**32.83**	**12.39**	**5.84**

Item Description	TPC			Commission		
	FY 2007-08	FY 2008-09	FY 2009-10	FY 2007-08	FY 2008-09	FY 2009-10
DPR) Schemes						

TPC has incurred capital expenditure of only Rs 10.11 Crore upto third quarter (Q3) of FY 2006-07. As the annual capital outlay approved over MYT Control Period is significantly higher than existing performance of TPC on this count, the Commission would consider revision in the capital outlay during annual performance review upon scrutiny of progress of schemes already approved and need for capital outlay towards additional capex schemes as may be approved by then. Further, TPC should ensure that the projected benefits actually accrue for the benefit of the stakeholders. It would be essential to monitor progress of each scheme as well as track expenditure and benefits accrued as per the scheme.

5.8.2 Capitalisation

TPC has proposed total capitalisation amounting to Rs 145.38 Crore over the Control Period from FY 2007-08 to FY 2009-10, comprising works capitalisation of Rs 142.86 Cr and interest capitalisation of Rs 2.53 Cr. The annual capitalisation over the Control Period as projected by TPC is Rs 95.61 Cr (FY 2007-08), Rs 29.05 Cr (FY 2008-09), and Rs 20.73 Cr (FY 2009-10). The summary of capitalisation as proposed by TPC is presented in the following Table:

(Rs Cr)

Item Description	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Investments	77.89	19.66	15.78	113.33
Works Capitalised	93.46	28.81	20.59	142.86
Interest Capitalised	2.15	0.24	0.14	2.53
Total Capitalisation	**95.61**	**29.05**	**20.73**	**145.39**

It is worthwhile to note here that actual capitalisation during FY 2005-06 had been Rs 37.60 Crore and capitalisation projected during FY 2006-07 is Rs 59.01 Crore. The Commission had considered capitalisation of Rs 13.81 Crore while approving the ARR for FY 2006-07 in the previous Order.

The Commission notes that TPC has considered capitalisation of interest cost towards capex schemes in line with Commission's directive under earlier Order. Accordingly, the

Commission had considered capitalisation of DPR schemes as approved or under advanced stage of approval as elaborated in earlier paragraphs.

In addition, the Commission has also considered capitalisation of Non-DPR schemes. The capitalisation of Non-DPR schemes already initiated prior to the Control Period has been considered as proposed by TPC. Further, as elaborated under earlier paragraphs for capital expenditure, the Commission has considered capital expenditure towards new schemes to be initiated during the Control Period under Non-DPR schemes only to the extent of 50% of that projected by TPC. Accordingly, capitalisation of such new non-DPR schemes had also been considered at 50% of that proposed by TPC. The capitalisation considered by the Commission over the MYT Control Period for DPR schemes and Non-DPR schemes is presented in the following Table:

(Rs. Crore)

Scheme Description	**TOTAL (DPR + Non-DPR) Schemes – (Commission)**			
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**TOTAL**
DPR schemes	4.32	-	-	**4.32**
Non-DPR schemes	43.40	20.45	10.52	**74.37**
TOTAL (DPR + Non DPR) Schemes	**47.73**	**20.45**	**10.52**	**78.69**

The summary of capitalisation as proposed by TPC and that considered by the Commission for the purpose of determination of ARR over the Control Period is given in the following Table:

Capitalisation ***(Rs Cr)***

Item Description	**TPC**			**Commission**		
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**FY 2007-08**	**FY 2008-09**	**FY 2009-10**
Total Capitalisation	95.61	29.05	20.73	47.73	20.45	10.52

5.9 INTEREST ON LONG TERM DEBT

During FY 2005-06, TPC had incurred interest expenditure of Rs 4.47 Crore. Further, as against approved interest cost of Rs 2.13 Crore during FY 2006-07, TPC has projected interest expenditure of Rs 7.25 Crore. However, TPC has proposed significant increase in interest expenditure to around Rs 36.96 Crore over the MYT Control Period, mainly on account of significant increase in projected capitalisation over the Control Period, as shown in the Table below:

Item Description	**TPC – (Existing + New) Loans (Rs Cr)**			
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**TOTAL**
Interest cost	10.54	12.76	13.67	**36.96**

TPC has submitted that it has considered a normative debt: equity ratio of 70:30 for financing of the Capex as per the Commission's Tariff Regulations, except for the schemes which are funded through consumer contribution. TPC plans to finance the future capital expenditure during the Control Period by raising loans from market at terms similar to the IDFC loan raised during FY 2006-07. Pending the finalization of such loans, for the Control Period, the terms as offered by IDFC have been considered for estimating the interest liability and the Interest during Construction (IDC) over the Control Period. The financing terms considered by TPC are 3 year moratorium and 9 year repayment at an interest cost of 8.9% p.a.

The Commission, in its earlier Order dated October 3, 2006 (Case 12 & 56 of 2005), has considered the interest rate on loans corresponding to capitalised assets at 10% p.a. for assets put to use during FY 2004-05 and FY 2005-06 and loan repayment period of 10 years in respect of such loans. Further, in respect of normative loans for assets to be capitalised during FY 2006-07, interest rate of 8% p.a. and repayment period of 20 years as per proviso to Regulation 74.2 of MERC (Terms and Conditions of Tariff) Regulations, 2005, were considered. However, as TPC has projected financing of capex through loan on similar terms as that from IDFC and arranging funds through additional market borrowings, it may not be advisable to consider terms for normative loan funding over the Control Period. Accordingly, the Commission has considered loan repayment and interest for existing loans (i.e., loans corresponding to assets put to use during FY 2004-05 and FY 2005-06) as per earlier terms, and terms for borrowings during the Control Period as per loan terms under IDFC loan, i.e., interest rate of 8.9% p.a. with moratorium of 3 years and repayment of 9 years.

Accordingly, interest cost projected by TPC and that approved by the Commission over the MYT Control Period is summarised in the following Table:

Loan and Interest (Rs Cr)

Item Description	TPC			Commission		
	FY 2007-08	FY 2008-09	FY 2009-10	FY 2007-08	FY 2008-09	FY 2009-10
Opening Balance	94.08	130.65	144.87	91.07	118.36	126.55
Additions	42.69	20.34	14.50	33.41	14.31	7.36
Repayments	(6.12)	(6.12)	(7.24)	(6.12)	(6.12)	(7.24)
Closing Balance	130.65	144.87	152.13	118.36	126.55	126.68
Interest Cost	**10.54**	**12.76**	**13.67**	**9.83**	**11.35**	**11.65**

5.10 DEPRECIATION AND ADVANCE AGAINST DEPRECIATION

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

The summary of depreciation and Opening GFA as proposed by TPC is presented in the following Table:

Table for Depreciation (Rs Cr)

Item Description	FY 2007-08	FY 2008-09	FY 2009-10	TOTAL
Op. GFA	421.54	517.15	546.20	
Depreciation	16.99	19.13	19.77	**55.89**
% depreciation rate	**4.03%**	**3.70%**	**3.62%**	

The Commission notes that Opening GFA of Rs 421.54 Crore during FY 2007-08 as projected by TPC is based on assumed capitalisation of Rs 59.01 Cr during FY 2006-07. In the earlier Order for FY 2006-07 (Cases 12 and 56 of 2005), the Commission has approved capitalisation of Rs 13.81 Crore. However, the Commission observes that scheme of 110 kV supply to HPCL was not considered at that time, which is projected to be capitalised during FY 2006-07 as per TPC’s submission.

Accordingly, the Commission has considered Opening GFA for FY 2007-08 as proposed by TPC with minor adjustments for the purpose of determination of depreciation over the

MYT Control Period, which may be reviewed during next annual performance review, once audited financial results for FY 2006-07 are available. Further, Opening GFA for FY 2008-09 and FY 2009-10 have been derived based on the value of the assets capitalised as discussed in previous paragraphs.

The weighted average depreciation rate as projected by TPC amounts to 4.03% of Opening GFA during FY 2007-08. Upon seeking clarification from TPC on applicable depreciation rates, TPC confirmed that depreciation rates are in line with the schedule provided under the MERC Tariff Regulations. Further, the Commission notes that TPC has computed depreciation on the opening GFA as well as assets put to use during the year. However, Regulation 76.4.1 of the MERC Tariff Regulations does not provide for depreciation on assets added during the year.

Accordingly, depreciation cost projected by TPC and approved by the Commission after required correction, over the MYT Control Period is summarised in the following Table:

Item Description	**TPC**			**Commission**		
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**FY 2007-08**	**FY 2008-09**	**FY 2009-10**
Op. GFA	421.54	517.15	546.20	417.25	464.98	485.43
Depreciation	16.99	19.13	19.77	15.05	16.64	17.16
% depreciation	**4.03%**	**3.70%**	**3.62%**	**3.61%**	**3.58%**	**3.53%**

Advance against depreciation

TPC has not sought approval for any advance against depreciation in line with the conditions stipulated under Tariff Regulations.

The Commission notes that as per Regulation 74.3 of MERC (Terms and Conditions of Tariff) Regulations, 2005, where the actual amount of loan repayment in any financial year exceeds the amount of depreciation allowable under Regulation 76.4.2, 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.

As the depreciation approved over the Control Period exceeds the approved loan repayment for each year during the Control Period, there is no need to provide for Advance Against Depreciation (AAD).

5.11 INTEREST ON WORKING CAPITAL AND INTEREST ON SECURITY DEPOSIT

TPC in its Petition submitted that the Interest on Working Capital for the Control Period has been estimated based on the components specified in the MERC (Terms and Conditions of Tariff) Regulations, 2005. TPC further submitted that the normative interest rate of 11.50% has been considered for estimating interest on working capital. As regards to interest on security deposit, TPC in its Petition submitted that the interest on Security Deposits from retail/commercial consumers is considered at the Bank Rate of 6%, in line with the Tariff Regulations. The Interest on Security Deposit is estimated at Rs 3 Crore in each year of the Control Period.

The Commission has estimated the working capital requirement of TPC-D in accordance with the provisions of Tariff Regulations. Further, the Tariff Regulations stipulates that Rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on the date on which the application for determination of tariff is made. As the short-term Prime Lending Rate of State Bank of India is around 11.50%, the Commission has considered the interest rate of 11.50 % for estimating the interest on working capital. As regards the interest on Security Deposit, the Commission has considered the considered the Security Deposit as projected by TPC-D as the same is in line with the provisions of Tariff Regulations.

The summary of Interest on Working Capital and Interest on Security Deposit as projected by TPC in its Petition and as approved by the Commission for the Control Period is given in following Table:

Table : Interest on Working Capital and Interest on Security Deposit (Rs Crore)

Item Description	**TPC**			**Commission**		
	FY 2007-08	**FY 2008-09**	**FY 2009-10**	**FY 2007-08**	**FY 2008-09**	**FY 2009-10**
Interest on Working Capital and Security Deposit (Rs Crore)	8	8	7	14	14	14

5.12 PROVISION FOR BAD AND DOUBTFUL DEBTS

TPC, in its Petition, has considered a provision of Rs 4 Crore for each year of the Control Period towards Bad and Doubtful Debts. TPC further submitted that in case of any write-backs of bad debts, the same would be returned to consumers during true-up.

The Commission has considered the Provision for Bad and Doubtful Debts as projected by TPC-D for the Control Period.

5.13 RETURN ON EQUITY

TPC submitted that it has projected the Return on Equity (RoE) for its distribution business in accordance with the Tariff Regulations notified by the Commission, which stipulates a 16% return on equity per annum on the regulatory equity at the beginning of the Financial Year for which the return is being computed. TPC has also considered RoE on the assets added during the year. Further, TPC has not considered any RoE on assets funded through consumer contribution. TPC has projected RoE as Rs. 25.92 Crore, Rs. 28.08 Crore, and Rs. 29.28 crore, for FY 2007-08, FY 2008-09 and FY 2009-10, respectively.

The Commission has considered the RoE @ 16% of the equity, in accordance with the Commission's Tariff Regulations, on the opening equity at the beginning of the year, and on 50% of the projected levels of assets capitalised during each year of the Control Period and considering the debt:equity ratio as 70:30, as elaborated in the earlier paragraphs on capital expenditure and asset capitalisation. The computation of RoE as approved by the Commission is shown in the Table below:

Return on Equity (Rs. Crore)

S.no.	Particulars	Ref.	Control Period (Forecast)		
			First Year 07-08	Second Year 08-09	Third Year 09-10
1	Regulatory Equity at the beginning of the year		151.57	165.89	172.03
2	Capitalised Assets during the year		47.73	20.45	10.52
3	Equity portion of expenditure on Capitalised Assets		14.32	6.13	3.15
4	**Regulatory Equity at the end of the year**		**165.89**	**172.03**	**175.18**
	Return Computation				
5	Return on Regulatory Equity at the beginning of the year	16%*(1)	24.25	26.54	27.52
6	Return on Equity portion of capital expenditure on Capitalised Assets	16%*(3)/2	1.15	0.49	0.25
7	**Total Return on Regulatory Equity**	**(5)+(6)**	**25.40**	**27.03**	**27.78**

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

5.14 INCOME TAX

TPC in its Petition submitted that the tax provision has been estimated based on the applicable tax rate, which works out to Rs 7 Crore, Rs 8 Crore and Rs 10 Crore for FY 2007-08, FY 2008-09 and FY 2009-10 respectively.

As TPC has estimated the tax liability considering the Tax WDV of assets and other provisions, and the estimated income tax is in line with the income tax considered by the Commission for FY 2006-07 for the distribution business, the Commission has considered the income tax as estimated by TPC.

5.15 STATUTORY APPROPRIATIONS

TPC, in its Petition, submitted that it has considered the contingency reserve @ 0.5% of the GFA and hence the statutory appropriations are estimated at Rs 3 Crore for each year in the Control Period.

The Commission has approved the contingency reserve @ 0.5% of the opening GFA for each year approved by the Commission. The Contingency Reserve as approved by the Commission for each year of the Control Period works out to Rs 2 Crore.

5.16 NON TARIFF INCOME

TPC has projected negative non-tariff income (loss) of Rs. 1 Cr during FY 2007-08 and FY 2008-09 and Rs 2 Crore for FY 2009-10. TPC submitted that the non-tariff income has been historically composed of recurring items (such as rents, etc.), and non-recurring items (like interest on statutory reserves maintained by TPC and certain items that occur once in a while). TPC submitted that since the reserves have been adjusted completely by the Commission to bridge the revenue gap in the previous year, and non-recurring items cannot be predicted, TPC has projected non-tariff income based on the trend followed by the recurring items. TPC further submitted that the negative values of Non Tariff Income during the Control Period are reflecting the counter-entry to the income shown in TPC-T account on services rendered by TPC-T.

The Commission has considered the Non Tariff Income for the Control Period equivalent to revised estimated non tariff income of Rs 1 Crore during FY 2006-07.

5.17 RETENTION OF 1/3RD SURPLUS OF PREVIOUS YEARS UNDER SIXTH SCHEDULE

In its Order in Case 47 of 2006, on the Review Petition filed by TPC on the Commission's Tariff Order for FY 2006-07, the Commission had stated,

> *"The Commission accepts TPC's contention regarding retention of 1/3rd surplus earned in FY 2004-05 subject to a ceiling of 5% of the amount of reasonable return, as it is in line with the Sixth Schedule of the erstwhile Electricity (Supply) Act, 1948, which has been made applicable for FY 2004-05 and FY 2005-06. The amount of surplus in FY 2004-05, if any, will be recomputed based on the expenditure being additionally allowed under this Order, and TPC will be allowed to retain 1/3rd of the same, subject to a ceiling of 5% of the amount of reasonable return, while the balance 2/3rd will be distributed to the consumers by setting off against the revenue requirement of the subsequent years, in accordance with the Sixth Schedule of the erstwhile Electricity (Supply) Act, 1948.*
>
> *Since, the amount trued up earlier was adjusted against the revenue requirement of the distribution business (TPC-D) in FY 2006-07; this adjustment of the reserves and subsequent treatment will also be done while truing up TPC-D's revenue gap in FY 2006-07."*

Accordingly, the Commission has included the amount towards 1/3rd retention of surplus in FY 2004-05, subject to a ceiling of 5% of reasonable return, which works out to Rs. 10.3 crore, in the ARR of FY 2007-08.

5.18 AGGREGATE REVENUE REQUIREMENT (ARR)

The Annual Revenue Requirement of TPC-D is the summation of all the expenses and the RoE as computed above, less non-tariff income, and has been summarized below for FY 2007-08:

Table : ARR for FY 2007-08 (Rs Crore)

Particulars	TPC	Approved
Power Purchase	1219.8	1278.7
Standby Charges	71.9	62.3
Transmission Charges	63.6	53.7
O&M Expenses	31.2	23.2
Depreciation/Adv. Against Depn	17.0	15.0
Interest and Finance Charges	18.8	24.4
Provision for Bad and Doubtful Debts	4.0	4.0
Income Tax	7.4	7.4
Contribution to Contingency Reserve	2.6	2.3
Total Revenue Expenditure	1436.3	1471.1
Return on Equity	25.9	25.4
Retention of Surplus	0.0	10.3
ARR	1462.2	1506.7
Non Tariff Income	-1.4	0.9
Income from Inter-Se Sale of Power	85.9	
ARR from Retail Tariff	1377.6	1505.9

As mentioned above, the Commission has approved the Power Purchase Cost only for FY 2007-08. The ARR excluding Power Purchase Cost, Standby Charges and Transmission Charges for FY 2008-09 and FY 2009-10 is given in following Table:

Table : ARR excluding Power Purchase, Standby and Transmission Charges for FY 2008-09 and FY 2009-10 (Rs Crore)

	FY 2008-09		FY 2009-10	
	TPC	Approved	TPC	Approved
O&M Expenses	33.70	24.47	35.10	25.78
Depreciation/Adv. Agst. Depn	19.13	16.64	19.77	17.16
Interest and Finance Charges	20.76	25.92	21.03	26.22
Provision for Bad and Doubtful Debts	4	4	4	4
Income Tax	8.39	8.39	10.34	10.34
Contribution to Contingency Reserve	3	2	3	2
Total Revenue Expenditure				

	FY 2008-09		FY 2009-10	
	TPC	**Approved**	**TPC**	**Approved**
	88.70	81.84	93.08	85.98
Return on Equity	28.08	27.03	29.28	27.78
ARR	116.79	108.87	122.36	113.76
Non Tariff Income	(1.4)	1.0	(2.0)	1.0
Net ARR	**118.22**	**107.87**	**124.35**	**112.76**

5.19 REVENUE WITH EXISTING TARIFF

The revenue with the existing tariff in FY 2007-08, has been computed by applying the existing tariff rates to the projected sales, which works out to Rs. 1250 crore.

5.20 REVENUE GAP TO BE MET

The revenue gap between the revenue requirement and the revenue from existing tariff in FY 2007-08, is thus projected as Rs. 256 crore, thus requiring an increase of 21% over existing levels of revenue. This revenue gap has to be met through retail tariff for sale of electricity. The average cost of supply of TPC-D works out to Rs. 5.13 per kWh.

The manner in which this revenue gap has been recovered from the consumers through retail tariffs has been discussed in Section 6.

6 TARIFF PHILOSOPHY

6.1 APPLICABILITY OF REVISED TARIFFS

The revised tariffs will be applicable prospectively from May 1, 2007 till March 31, 2008. In cases, where there is a billing cycle difference of 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 consumption 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. As elucidated in the Commission's Order in Case No.2 of 2007, any shortfall in actual revenue due to the applicability of the revised tariffs for only eleven months of FY 2007-08, will not be trued up at the end of the year.

The Commission will undertake the Annual Review of TPC-D's performance during the last quarter of FY 2007-08. TPC-D is directed to submit its Petition for Annual Review of its performance during the first half of FY 2007-08, as well as truing up of revenue and expenses for FY 2006-07, with detailed reasons for deviation in performance, latest by November 30, 2007.

6.2 TARIFF PHILOSOPHY

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 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 tariffs throughout Mumbai.

The Commission has determined the tariffs applicable to TPC's consumers, keeping in mind the recently revised tariffs of BEST, MSEDCL and REL, with the intention of reducing the imbalances between the tariffs applicable for the same consumer category across Licensees in the State.

The existing FAC has been equated 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, TPC 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.

In the earlier Tariff Orders, the cost implication of standby charges and expensive power were embedded within the energy charges for all the consumers. But in this Tariff Order, the Commission has decided to segregate the charges and charge it to specific category of consumers. Thus, the base energy charge determined in this Tariff Order is excluding the cost of standby charge and expensive power.

The two main components of the Reliability Charge are as follows:

§ Stand-by Charges

§ Approved Cost of Expensive power

As compared to consumers in other parts of the State, consumers in Mumbai have had the privilege of uninterrupted power supply for many years, on account of the existence of a standby power agreement with MSEDCL. This ensures that the city does not face any load shedding in case of an emergency situation in the licensee area. The annual cost implication of the standby arrangement for TPC-D is around Rs 62 Crore.

Due to increasing energy consumption in its license area and no additional generation capacity, TPC-D has been purchasing expensive short-term power to meet this demand. The approved cost of expensive power of around Rs 511 Crore in FY 2006-07, has been levied to selected specified consumer categories.

The Commission has made the Reliability Charge applicable in the following manner:

§ The stand by charge would be levied uniformly across all categories of consumers except BPL consumers at the rate of 21 paise per unit.

§ The cost for expensive power would be levied on all consumers except the Below Poverty Line (BPL) and LT-1 (Residential) consumers consuming less than 300 units so as to prevent tariff shock for these consumers.

The demand-supply situation in the city of Mumbai is in a fine state of balance, with the licensees barely managing to meet the demand, through a combination of own generation and costly power purchases from outside the State. However, if the demand continues to grow at the current rate, then it is likely that the city of Mumbai, including TPC-D's consumers, will have to face load shedding during system peak hours, even after paying the Reliability Charges. Thus, Commission has determined 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.

In the Residential consumer category, the Commission has introduced a new slab of more than 500 units consumption per month. The Commission feels that in the residential category, such consumption should be classified as luxurious use, and an economic signal in terms of higher tariff, has to be given to such consumers to encourage them to make efforts for energy conservation. The tariff for domestic category with a monthly consumption upto 300 units has been maintained at around the existing level. For the higher consumption slabs of over 300 units and 500 units per month, the tariff has been specified at higher levels, to act as a disincentive for high consumption.

Further, considering the severe energy deficit situation of Mumbai and rest of Maharashtra, Commission would like to put a high cost on unwarranted commercial consumption like flood lights, shopping malls, multiplexes, advertising and hoarding, etc. by charging a higher tariff. The Commission feels that these are non-critical services and have higher capacity to pay. These categories also have a huge potential to conserve energy and a high price of power would send the economic signal for minimizing consumption.

For LT IV category (formerly known as Advertisement & Hoarding category) which includes flood lights, neon signs at various places and advertisement and hoardings in commercial establishment, the fixed charge has been increased to Rs 400 per month from Rs. 200 per month, and energy charge has been increased to Rs 12 per kWh from the existing energy charge of Rs 11 per kWh and reliability charge has been levied as Rs. 2.21 per kWh. The tariff has been determined such that it may be more economical for such consumers to opt for captive power supply through DG sets, etc., rather than take supply from the distribution licensee.

The Commission has introduced a new tariff category for all multiplexes and shopping malls having a sanctioned load more than 20 kW with tariff of fixed charge of Rs 300 per kVA per month, energy charge of Rs 6.25 per kWh and reliability charge of Rs. 2.21 per kWh.

The Commission has created two sub-categories within LT-V (LT industrial) category, viz., consumers with sanctioned load of upto and including 20 kW, and consumers with sanctioned load above 20 kW. Demand charges have been specified in Rs/kVA/month for consumers with sanctioned load above 20 kW, whereas fixed charges in Rs/connection/month have been specified for consumers with sanctioned load of upto and including 20 kW, to ensure parity with other distribution licensees in the State.

The Time of Day (ToD) tariffs have been retained at the existing levels.

The Commission has retained the philosophy that in case of any inter-utility power exchange within the State other than the 'contracted' power procurement, the rate applicable shall be the marginal cost of the supplying utility. This dispensation should be read with all the clarifications given by the Commission on this aspect, on Petitions filed by MSEDCL and TPC.

In the previous Tariff Order, the Commission had directed TPC-D to ensure that any HT Industrial and Commercial category consumer, as well as HT-Public consumers, requiring a single point supply and undertaking sub-distribution to mixed loads either operate through a franchise route or take individual connections under relevant category. The Commission had further clarified in the Order on the Review Petition filed by TPC as follows:

> *"The first sentence of the aforesaid quoted portion from the Supreme Court's Order allows TPC to continue supply to all its own consumers (retail, less than 1000 kVA or more than 1000 kVA). This includes the HT Industrial and Commercial category consumers, as well as HT-Public consumers referred to in the above paragraph 7.2(4) of the Commission's Order dated October 3, 2006. Therefore, there is no prohibition on TPC to authorise these consumers as franchisees as defined in Section 2(27) of the EA 2003 read with the seventh proviso to Section 14 thereof. The last mile entities, to whom these consumers have been providing electricity (after availing the same at single point), will have*

to take individual connections from TPC. These last mile entities will become the consumers of TPC-D. The said HT Industrial and Commercial category consumers, as well as HT-Public consumers, should execute franchisee agreements with TPC.

As the aforesaid Supreme Court's Order does not disturb the supply at single point by TPC to its HT Industrial and Commercial category consumers, as well as HT-Public consumers, it implies therefore that there is no restriction for these consumers to become franchisees (through whom TPC will undertake distribution of power to the last mile entities) and also for their own load, take individual connections under relevant category. So far as the last mile entities (that is to whom HT Industrial and Commercial category consumer/ HT-Public consumers were undertaking sub-distribution of mixed loads) are not already getting supply from REL, there is no restriction in the aforesaid Supreme Court's order for these last mile entities to take connection from TPC for electricity supply through the aforesaid franchisees as the last mile entities necessarily under law should be the consumers of the distribution licensee and cannot be supplied by HT Industrial and Commercial category consumer/HT Public consumers by sub-distribution without formalizing franchisee arrangement as stipulated by the Commission in its Order dated October 3, 2006. Also, the last mile consumers to whom sub-distribution is undertaken would come within the ambit of the positive permission in the Supreme Court's Order, for effecting supply by TPC.

The words "shall not be disturbed" as appearing in the aforesaid Supreme Court's order implies that "so far as old consumers are concerned, to whom the supply is made by the appellant"………."the appellant shall continue the supply in their cases". Therefore, there is no restriction for TPC to continue to supply to their existing HT Industrial and Commercial category consumer/ HT-Public consumers for their own loads. There is no restriction for TPC to convert or authorize these existing HT Industrial and Commercial category consumer/ HT Public consumers, as franchisees. There is also no restriction for TPC to supply directly to the last mile entities to whom it's HT Industrial and Commercial category consumer/ HT-Public consumers were undertaking sub-distribution of mixed loads. Needless to mention that the above arrangement of supply to HT Industrial and Commercial category consumer/ HT Public consumers as well as *the aforesaid last mile entities would be subject to the final result of civil appeal no. 2898 of 2006 filed by TPC before the Honourable Supreme Court."*

The Billing Demand definition has been retained at the present 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.

The existing cross-subsidy and the reduction in cross-subsidy considered by the Commission, excluding the reliability charges, are given in the Table below:

Consumer Category	Avg Cost of Supply (Rs/unit)	Average Billing Rate (Rs./unit)		Ratio of Average Billing Rate to Average Cost of Supply (%)		Percentage point increase/ decrease in Tariff w.r.t Avg. CoS
		Existing Tariff	Revised Tariff	Existing Tariff	Revised Tariff	
HT IV - Railways	3.49	2.32	2.34	67%	67%	0%
HT II - Industrial		2.86	4.29	82%	123%	41%
HT I - Public		2.28	2.59	65%	74%	9%
HT II - Textiles		2.67	4.14	77%	119%	42%
HT I - CPP		2.55	2.78	73%	80%	7%
HT III - Commercial		2.25	4.41	65%	126%	62%
LT III (>20 kW)						
Industrial		4.89	4.74	140%	136%	-4%
Commercial		3.07	5.23	88%	150%	62%
LT II (<20 kW)						
Industrial		3.19	3.65	91%	105%	13%
Commercial		3.20	4.43	92%	127%	35%
LT I - Residential		2.62	2.92	75%	84%	8%

The above Table shows increase in the cross-subsidy levels for certain consumer categories, despite excluding the reliability charges, because the Commission in this Tariff Order has tried to build in economic signals in the tariffs to encourage conservation of energy especially in the context of severe energy deficits and these categories can easily implement EE or DSM initiatives.

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.

6.3 REVISED TARIFFS WITH EFFECT FROM MAY 1, 2007

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
	LOW TENSION CATEGORIES				
1	**LT I - Residential**				
	Below Poverty Line (BPL)	Rs. 3 per month	40		
	Other Residential				
	0-100 units	Rs. 30 per month	150	21	
	101-300 units	Rs. 50 per month$$	350	21	
	301 to 500 units		450	21	100
	Above 500 units (balance units)		590	21	100
2	**LT II -** LT Industrial & Commercial below 20 kW load				
	Industrial	Rs. 150 per month$$$	360	21	145
	Commercial		425	21	145
3	**LT III -** LT Industrial & Commercial above 20 kW load				
	Industrial	Rs 300 per kVA per month	320	21	165
	Commercial		435	21	165
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		*60*		
	Remaining hours of the day		*0*		
4	**LT IV - Advertisement & Hoardings, incl. floodlights & neon signs**	Rs. 400 per month	1200	21	200

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
5	**LT V – Shopping Malls & Multiplexes**	Rs 300 per kVA per month	625	21	200
	HIGH TENSION CATEGORIES				
6	**HT I – Public & CPP**	Rs 300 per kVA per month	150	21	180
7	**HT II - Industries & Textiles**	Rs 300 per kVA per month	300	21	180
8	**HT III – Commercial**	Rs 300 per kVA per month	340	21	200
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		*60*		
	Remaining hours of the day		*0*		
9	**HT IV - Railways**				
	33/22/11/6.6 kV	Rs 275 per kVA per month	120	21	180
	100 kV		118	21	180

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. $$: Fixed charge of Rs. 100 per month will be levied on residential consumers availing 3 phase supply. Additional Fixed Charge of Rs. 100 per 10 kW load or part thereof above 10 kW load shall be payable.
3. $$$: In case of LT II (commercial) consumers, additional Fixed Charge of Rs. 150 per 10 kW load or part thereof above 10 kW load shall be payable.

6.4 WHEELING CHARGES

The Commission under its Order dated October 3, 2006 (Case 12 and 56 of 2005) had directed TPC to maintain the account of expenses incurred for wire business and supply business separately, and to submit the same along with its MYT Petition for FY 2007-08 onwards.

However, TPC under its MYT application had submitted that the consumer base of TPC is small compared to consumer base of other Distribution Licensees like BEST and REL. Hence, the supply related costs (excluding the Power Purchase Costs) are a small proportion of the total distribution ARR. Further, TPC submitted that historically, TPC had not been accounting costs under two separate streams of activity, hence, TPC had made tentative estimate of network cost based on certain assumptions. Further, TPC had confirmed that it would attempt to put systems in place to capture the expenditure under the two businesses separately at the earliest.

The Commission reiterates 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, and affects open access transactions as mandated under Electricity Act 2003. Further, network costs needs to be segregated in terms of voltage level (at least at HT and LT level). The Commission directs TPC to submit voltage-wise segregated wire cost component of ARR during annual performance review.

The Commission has determined the wheeling charges for eligible open access consumers at HT level based on the allocation of asset base considering sales at respective voltage levels. The costs at higher (HT) voltage level are also apportioned to lower voltage (LT) levels. The ARR has been segregated between wheeling business and retail supply business based on the submissions made by TPC. Consumers connected directly to the transmission network would not be required to pay the wheeling charges.

Table: Share of Wires Business in total TPC-D ARR

S.no.	Particulars	Ensuing Year (FY 2007-08)			Ensuing Year (FY 2007-08)		
		Commission(Rs Cr)	Network cost (%)	Supply Cost (%)	Network Cost (Rs Cr)	Supply Cost (Rs Cr)	Total ARR (Rs Cr)
1	**Power Purchase Expenses**	**1330.81**	**0%**	**100%**	**0.00**	**1330.81**	**1330.81**
1.1	*Power Purchase [from TPC-G]*	*802.93*	*0%*	*100%*	*0.00*	*802.93*	*802.9283462*
1.2	*Power purchase - RPS Obligations*	*45.03*	*0%*	*100%*	*0.00*	*45.03*	*45.03*
1.3	*Power purchase - Other sources*	*420.52*	*0%*	*100%*	*0.00*	*420.52*	*420.52*
1.4	*Share of Standby Charges*	*62.34*	*0%*	*100%*	*0.00*	*62.34*	*62.34*
1.5	Transmission charges payable	53.69	0%	100%	0.00	53.69	53.69
2	**Operation & Maintenance Expenses**	**23.22**	**70%**	**30%**	**16.29**	**6.94**	**23.22**
2.1	*Employee Expenses*	*10.50*	*69%*	*31%*	*7.29*	*3.21*	*10.50*
2.2	*Administration & General Expenses*	*9.66*	*64%*	*36%*	*6.23*	*3.43*	*9.66*
2.3	*Repair & Maintenance Expenses*	*3.06*	*91%*	*9%*	*2.77*	*0.29*	*3.06*
3	Depreciation	15.05	88%	12%	13.24	1.81	15.05
4	Interest on Long-term Loan Capital	9.83	88%	12%	8.65	1.18	9.83
5	Interest on Working Capital and on consumer security deposits	14.42	0%	100%	0.00	14.42	14.42
6	Provisioning for Bad Debts	4.00	0%	100%	0.00	4.00	4.00
7	Income Tax	7.40	3%	97%	0.19	7.20	7.40
8	Contribution to contingency reserves	2.32	88%	12%	2.05	0.28	2.32
9	**Total Revenue Expenditure**	**1460.74**	**3%**	97%	**40.42**	**1420.32**	**1460.74**
10	Return on Equity Capital / Reasonable Return on Capital Base	25.40	88%	12%	22.35	3.05	25.40
12	**Aggregate Revenue Requirement**	**1486.14**	**4%**	96%	**62.77**	**1423.37**	**1486.14**
13	Less: income from sale of inter-se power	-				-	0.00
14	Less: Non Tariff Income	1.37	100%	100%	1.37	1.37	2.75
15	**Aggregate Revenue Requirement from Retail Tariff**	**1,487.51**	**4%**	96%	**64.15**	**1,424.74**	**1,488.89**

The Commission has considered the allocation of expenses where submitted by TPC and applied certain assumptions to determine the allocation of expenses between wires and supply business, in the absence of allocation ratios. The Commission directs TPC 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.

The total ARR of the Wires business as computed above has been apportioned to HT and LT in the ratio of HT and LT sales, and the HT cost has further been apportioned to LT category, since the HT system is also being used for supply to the LT consumers. Thus, the wheeling charge applicable to consumers connected on the HT network during FY 2007-08 works out to **Rs. 111 per kW per month**.

In addition, wheeling loss in kind shall be applicable for wheeling transactions entailing drawal at HT level at the rate of 2.93%, which is equivalent to the overall distribution loss of TPC-D, which has been considered even though it includes losses at LT level, as the break-up of losses at different voltage levels is not available, and the overall distribution losses are on the lower side.

6.5 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.

6.6 INCENTIVES AND DISINCENTIVES:

Power Factor Calculation

Wherever, the average power factor measurement is not possible through already installed meter, the following method for calculating the average power factor during the billing period shall be adopted-

$$\text{Average Power Factor} = \frac{Total(kWH)}{Total(kVAh)}$$

Wherein the kVAh is the square root of the summation of the squares of kWh and RkVAh

Power Factor Incentive (Applicable for all HT categories, LT III and LT V 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 all HT categories, LT III and LT V 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 working days from the date of issue of the bill.

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

The Commission has introduced a 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 categories only. Further, the load factor rebate will be available only if the consumer has no arrears with TPC-D, 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 TPC-D, and the same is being made as scheduled. TPC-D 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).

6.7 REVENUE WITH REVISED TARIFFS

In FY 2007-08, TPC will earn revenue for one month with existing tariff, while the revised tariffs will be applicable for 11 months, from May 1, 2007. The total revenue from sale of electricity based on revised tariffs if they were applicable for the entire year has been projected as Rs. 1506 crore.

The impact of the tariff revision on the monthly electricity bills of the different consumer categories is presented in **Appendix 3**. The approved detailed Tariff Schedule for FY 2007-08 is attached as **Appendix 4**.

7 APPLICABILITY OF ORDER

This Order for the first Control Period from FY 2007-08 to FY 2009-10, shall come into force with effect from May 1, 2007, and shall continue to be in force till March 31, 2010. However, the tariffs determined in this Order shall come into force with effect from May 1, 2007, and shall continue to be in force till March 31, 2008.

The Commission will undertake the Annual Review of TPC-D's performance during the last quarter of FY 2007-08. TPC-D is directed to submit its Petition for Annual Review of its performance during the first half of FY 2007-08, as well as truing up of revenue and expenses for FY 2006-07, with detailed reasons for deviation in performance, latest by November 30, 2007.

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

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

Sd/-	Sd/-	Sd/-
(S. B. Kulkarni)	(A. Velayutham)	(Pramod Deo)
Member	Member	Chairman, MERC

Secretary, MERC

APPENDIX 1

List of persons who attended the Technical Validation Session held on February 8, 2007

S.No	Name	Designation
TPC Officials		
1	Shri S.Ramakrishnan	ED
2	Shri T.N.Ramakrishnan	AGM
3	Shri V.H.Wagle	Manager
4	Shri B.P.Mehta	Asst. Manager
5	Shri Rakesh Singh	Asst. Manager
6	Shri S.V.Kher	AGM
7	Shri A.K.Jain	Sr. Manager
8	Shri Prashant K. Ambekar	Sr.EE
9	Shri Avinash Katdare	Manager
10	Shri T.P.Mohan	ADM
11	Shri A.Sethi	GM
12	Shri M.Ravindra	Sr. Manager
13	Shri M.K.Gupta	AM
14	Shri S.R.Mehendale	AM
15	Shri D.Rama	DGM
16	Shri G.S.Bapat	GM
BEST Officials		
17	Shri A.V.Kane	AGMS
18	Shri S.A.Puranic	DGMES
19	Shri G.P.Pradhan	AGMA
REL Officials		
20	Shri P.S. Pandya	Sr. Consultant
21	Shri G.J.Thakkar	Deputy Manager
22	Shri Sharad Naik	Sr. Officer
23	Shri R.R.Mehta	Sr.VP
24	Shri Desai	Sr. Officer
25	Shri Mohan Limeya	Sr. Manager
26	Shri A.C.Tambawala	AVP
27	Shri M.Madhukar	Sr.VPC

Others		
28	Shri H.S.Dote	Analyst, Emam
29	Shri M.Jain	Analyst, Emam
30	Shri S.Thorat	Sr.Manager, AFF
31	Shri Venkatesh	Consultant, AFF
32	Shri Anand Dhavale	Manager, FVL
MSETCL Official		
33	Shri R.N.Mundhe	S.E
Consultants to Commission		
34	Shri Suresh Gehani	
35	Shri Palaniappan M	
36	Shri S.R.Karkhanis	
37	Shri Akhilesh Avasti	
38	Shri D.Thakur	
39	Shri Lal	

APPENDIX 2

List of Objectors

S.No	Name of Person / Official	Designation	Institution
1	Shri Vijaykumar Tamhane	Secretary	The Mill owner's Association
2	Shri S.A. Puranik,	DGM	BEST
3	Shri S.N.Singh,	Chief Electrical Distribution Engg	Central Railway
4	Shri Rajiv Sharma,		
5	Shri Sandeep Gode,		Ekta Mitra Mandal
6	Shri Rakshpal Abrol,	President	Bombay Small Scale Industries Association (BSSIA)
7	Shri N. Ponrathnam,		Vel Induction Hardening
8	Shri Mahesh Barbhaya,		

List of Objectors who attended the Public Hearing on February 28, 2007

S.No	Name of Person / Official	Designation	Institution
1	Shri Vijaykumar Tamhane	Secretary	The Mill owner's Association
2	Shri S.N. Singh,	Chief Electrical Distribution Engg	Central Railway
3	Shri Rakshpal Abrol,	President	Bombay Small Scale Industries Association (BSSIA)
4	Shri N. Ponrathnam,		Vel Induction Hardening
5	Shri Mahesh Barbhaya,		

APPENDIX 3

Illustrative Impact on Monthly Bills due to revised Tariffs

Sl.	Consumer Category	Monthly Consumption (units)	Billing Demand (kVA)	Existing Tariff		Revised Tariff				Monthly Bill (Rs)			
				Fixed/ Demand Charge (Rs/month) or Rs/kVA/month	Energy Charges, including FAC (Rs/unit)	Fixed/ Demand Charge (Rs/mth) or Rs/kVA/mth	Energy Charges (Rs/unit)	Standby Charge (Rs/unit)	Expensive Power Charge (Rs/unit)	Existing Tariff	Revised Tarif	Increase/ (Reduction)	
1	**LT I - Residential : BPL category**	25		3	0.40	3	0.40			13	13	-	0%
2	**LT I - Residential Category**	75		30	1.79	30	1.50	0.21	0.00	164	158	(6)	-4%
		125		50	3.79	50	3.50	0.21	0.00	324	314	(10)	-3%
		400		50	5.94	50	4.50	0.21	1.00	1,581	1,534	(47)	-3%
		700		50	5.94	100	5.90	0.21	1.00	3,364	3,577	213	6%
3	**LT II (Below 20 kW load)**												
	Industrial	4000		150.00	4.79	150.00	3.60	0.21	1.45	19,314	21,190	1,876	10%
	Commercial	3000		150.00	4.79	150.00	4.25	0.21	1.45	14,523	17,880	3,357	23%
4	**LT III (Above 20 kW load)**												
	Industrial	5000	40	374	3.69	300	3.20	0.21	1.65	33,416	37,300	3,885	12%
	Commercial	35000	100	374	3.69	300	4.35	0.21	1.65	166,589	247,350	80,762	48%
5	**LT IV : Advertising & Hoardings**	1800		200	11.19	400	12.00	0.21	2.00	20,344	25,978	5,634	28%
6	**LT V - Shopping Complexes & Multiplexes**	48000	100	374	3.69	300	6.25	0.21	2.00	177,547	436,080	258,533	146%
7	**HT I - Public & CPP**	1000000	5000	374	3.09	300	1.50	0.21	1.80	4,961,100	5,010,000	48,900	1%
8	**HT II - Industrial & Textiles**	1000000	1500	374	3.34	300	3.00	0.21	1.80	3,902,100	5,460,000	1,557,900	40%
9	**HT III - Commercial**	1000000	5000	374.00	3.34	300	3.40	0.21	2.00	5,211,100	7,110,000	1,898,900	36%
7	**HT IV - Railways**	45000000	150000	340	3.34	275	1.20	0.21	1.80	201,349,500	185,700,000	(15,649,500)	-8%

APPENDIX 4

APPROVED TARIFF SCHEDULE OF TPC-D

THE TATA POWER COMPANY LIMITED
TARIFF BOOKLET

APPLICABLE WITH EFFECT FROM
MAY 1, 2007

Price: Rs. 20/- (Twenty) only

The Maharashtra Electricity Regulatory Commission (MERC) in exercise of the powers vested in it, under Section 61 and 62 of the Electricity Act 2003 (EA 2003) and all other relevant powers has determined by its Detailed Order dated April 30, 2007, in the matter of Case No. 70 of 2006, the retail tariff for supply of electricity by The Tata Power Company Limited (TPC) to various categories of consumers.

GENERAL

1) These tariffs supersede all tariffs applicable in force, till date.

2) Tariffs are subject to revision and/or surcharge that may be levied by TPC from time to time as per the directives of the Commission. Tariffs are applicable for supply at single point only.

3) The tariffs are exclusive of electricity duty, taxes and other charges as levied by Government or any other competent authority and the same, as applicable, will be payable by the consumers in addition to the charges levied as per the tariffs mentioned hereunder.

4) Fuel Adjustment Charge (FAC) will be applicable on monthly basis to all consumers, and will be charged over and above the tariffs mentioned hereunder, on the basis of FAC formula prescribed by the Commission and computed on a monthly basis. This FAC shall be applicable on the base energy cost and not on the expensive energy cost considered for calculation of Reliability Charge.

5) The Commission has introduced a new charge namely “Reliability Charge” to meet the cost towards costly power purchase and Stand-by charges; which will be in addition to the base tariffs.

6) The “Reliability Charge” shall depend upon the energy consumption pattern of the tariff categories to which these charges are applicable.

7) The “Reliability Charge” shall be separately shown in the consumer’s energy bills

8) Reliability Charges shall be considered for computing the Rebates / Incentives/ Penalties / DPC / Additional Security Deposit.

9) The tariffs are subject to the provisions of the MERC (Electricity Supply Code and Other Conditions of Supply) Regulation, 2005 in force (i.e., as on 20th January 2005) and directions, if any that may be issued by the Commission from time to time.

10) Depending on the billing cycle applicable to different categories, the revised tariff shall be made applicable on a pro-rata basis for the consumption starting from May 1, 2007.

LOW TENSION TARIFF

1.0 RESIDENTIAL CONSUMERS (LT – I)

1.1 Applicability:

This rate schedule is applicable for supply to lights and fans, heating, cooking, air-conditioners, cleaning, refrigeration purposes, etc. in residential premises, premises used for religious and charitable activities, non-commercial educational institutions, charitable dispensaries and charitable hospitals and residential premises used by professionals like Lawyers, Doctors, except for nursing homes and surgical wards/clinics, Chartered Accountants, etc. in furtherance of their professional activity in their residences. The voltage of supply under this tariff will be 415 V three phase or 240 V single phase A.C. system (between phase wires and neutral of three phase A.C. system).

Below the Poverty Line (BPL) category is applicable for consumers consuming less than 30 units per month. In case the consumption of BPL category consumers exceeds 30 units in any month, then such consumers will thereafter be automatically considered under 'residential' category LT I, and will be charged accordingly.

1.2 Rate Schedule

<u>**Fixed and Energy Charges**</u>

<table>
<tr><th rowspan="3">Sl.</th><th rowspan="3">Consumer category & Consumption Slab</th><th colspan="4">Tariffs</th></tr>
<tr><th>Fixed/Demand Charge</th><th>Energy Charge (p/kWh)</th><th colspan="2">Reliability Charge (p/kWh)</th></tr>
<tr><th></th><th></th><th>Standby Charge</th><th>Expensive Power Charges</th></tr>
<tr><td>1</td><td>LT I - Residential</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>Below Poverty Line (BPL)</td><td>Rs. 3 per month</td><td>40</td><td>-</td><td>-</td></tr>
<tr><td></td><td>Other Residential</td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td>0-100 units</td><td>Rs. 30 per month</td><td>150</td><td>21</td><td>-</td></tr>
<tr><td></td><td>101-300 units</td><td rowspan="3">Rs. 50 per month</td><td>350</td><td>21</td><td>-</td></tr>
<tr><td></td><td>301 to 500 units</td><td>450</td><td>21</td><td>100</td></tr>
<tr><td></td><td>Above 500 units (balance units)</td><td>590</td><td>21</td><td>100</td></tr>
</table>

Note:

a) Additional Fixed Charge of Rs. 100 per 10 kW load or part thereof above 10 kW load shall be payable.

b) For deciding a consumer in BPL category,

- All LF1 single phase consumers with consumption between 1 to 30 units in the billing months spanning over last one year (April 2006 to March 2007) will be considered in BPL Category.
- 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.
- If the BPL category consumer exceeds 30 units consumption in any billing month, they will be charged to LT I (Other Residential) category from that month.

2.0 LT INDUSTRIAL AND COMMERCIAL BELOW 20 kW LOAD (LT - II)

2.1 APPLICABILITY

LT Commercial below 20 kW load

Applicable to Lights and fans, heating, cooking, air-conditioners, cleaning, refrigeration and Commercial motive power in commercial and business premises, clubs, restaurants and hotels and other premises not covered under the Rate Schedule prescribed for LT I. The voltage of supply under this tariff will be 415 V three phase or 240 V single phase A.C. system (between phase wires and neutral of three phase A.C. system).

LT Industrial Load below 20 kW

Applicable to LT industries with sanctioned loads upto and including 20 kW (27 HP) and supply being provided at medium / low voltage.

2.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
2	**LT II** - LT Industrial & Commercial below 20 kW load				
	Industrial	Rs. 150 per month	360	21	145
	Commercial		425	21	145

Note:

Additional Fixed Charge of Rs. 150 per 10 kW load or part thereof above 10 kW load shall be payable.

3.0 LT INDUSTRIAL AND COMMERCIAL ABOVE 20 kW LOAD (LT III)

3.1 APPLICABILITY

LT Commercial above 20 kW load

Applicable to Lights and fans, heating, cooking, air-conditioners, cleaning, refrigeration and Commercial motive power in commercial and business premises, clubs, restaurants and hotels and other premises not covered under the Rate Schedule prescribed for LT I. The voltage of supply under this tariff will be 415 V three phase or 240 V single phase A.C. system (between phase wires and neutral of three phase A.C. system).

LT Industrial above 20 kW load

Applicable to LT industries with sanctioned loads above 20 kW (27 HP) and supply being provided at medium / low voltage.

3.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
3	**LT III** - LT Industrial & Commercial above 20 kW load				
	Industrial	Rs 300 per kVA per month	320	21	165
	Commercial		435	21	165
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		*60*		
	Remaining hours of the day		*0*		

4.0 ADVERTISEMENT AND HOARDINGS (LT IV)

4.1 APPLICABILITY

Electricity used for 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 commercial establishments specifically covered under LT-II or LT-III as well as electricity used for the external illuminations of monumental, historical / heritage buildings approved by MTDC, which shall be covered under LT-II or LT-III category depending upon Sanctioned Load.

4.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
4	**LT IV - Advertisement & Hoardings, incl. floodlights & neon signs**	Rs. 400 per month	1200	21	200

5.0 SHOPPING MALLS AND MULTIPLEXES (LT V)

5.1 APPLICABILITY

Applicable for supply to shopping malls and multiplexes with sanctioned load above 20 kW, taking supply at LT voltages.

This tariff will be applicable also in the event of extending supply to shopping malls and multiplexes at HT voltage.

5.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
5	**LT V – Shopping Malls & Multiplexes**	Rs 300 per kVA per month	625	21	200
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		60		
	Remaining hours of the day		0		

Billing Demand (for LT categories):
Monthly Billing Demand will be the higher of the following:

i) 65% of the actual Maximum Demand recorded in the month during 0600 hours to 2200 hours.

ii) 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 (i) above will be reckoned from the month following the month in which the change of Contract Demand takes place.

HIGH TENSION TARIFF

6.0 HT I - PUBLIC and CPPs

6.1 APPLICABILITY

Applicable to Government Departments, Bhabha Atomic Research Centre (BARC), Brihanmumbai Municipal Corporation (BMC), Mumbai Port Trust, and Industrial Units classified under erstwhile CPP category.

6.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
6	**HT I – Public & CPP**	Rs 300 per kVA per month	150	21	180
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		60		
	Remaining hours of the day		0		

7.0 HT II - INDUSTRIAL AND TEXTILES

7.1 APPLICABILITY

Applicable to Industrial consumers, including HT Textiles.

7.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
7	**HT II - Industries & Textiles**	Rs 300 per kVA per month	300	21	180
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		60		
	Remaining hours of the day		0		

8.0 HT III - COMMERCIAL

8.1 APPLICABILITY

Applicable to Commercial consumers availing supply at High Voltage.

8.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
8	**HT III – Commercial**	Rs 300 per kVA per month	340	21	200
	TOD Tariffs (in addition to above base tariffs)				
	1800 hours to 2200 hours		60		
	Remaining hours of the day		0		

9.0 RAILWAYS

9.1 APPLICABILITY

Applicable to electricity supply at 100 kV / 33 kV / 22 kV / 11 kV / 6.6 kV to Railways.

9.2 RATE SCHEDULE

Fixed and Energy Charges

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
9	**HT IV - Railways**				
	33/22/11/6.6 kV	Rs 275 per kVA per month	120	21	180
	100 kV		118	21	180

10.0 IN ADDITION TO THE RATES GIVEN IN 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, AND 9.0, THE FOLLOWING CHARGES WILL BE APPLICABLE:

10.1 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. 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 can be accessed on TPC website www.tatapower.com.

10.2 ELECTRICITY DUTY AND TAX ON SALE OF ELECTRICITY

The electricity duty and tax on sale of electricity will be charged as per the Government guidelines from time to time. However, the rate and the reference number of the Government Resolution/Order/Notification vide which it is made effective, shall be stated in the bill. A copy of the said Resolution/ Order/ Notification shall be made available on the TPC website.

10.3 BILLING DEMAND

The actual established maximum demand (KVA) shall be average kVA during 30 min. period of maximum use in the entire system within the billing month.

The “Monthly Billing Demand" for LT/HT consumers availing demand based tariff will be the highest of the following:

a) Actual Maximum Demand recorded in the month during the period of 0600 hours to 2200 hours;

b) 75% of the highest billing demand or Contract Demand, whichever is lower, recorded during the preceding eleven months;

c) 50% of the Contract Demand (“Contract Demand” means demand in kilo Watt (kW)/kilo Volt Ampere (kVA), mutually agreed between TPC and the consumer as entered into in the Agreement or agreed through other written communication).

10.4 PENALTY FOR EXCEEDING CONTRACT DEMAND

In case a consumer exceeds his Contract Demand, he will be billed at the appropriate Demand Charges for the actual recorded demand and in addition, penalty will be charged at the rate of 150% of the prevailing Demand Charges for the demand recorded in excess of the Contract Demand.

10.5 ADDITIONAL DEMAND CHARGES FOR CONSUMERS HAVING CAPTIVE GENERATION FACILITY

a) High Tension industries and other general High Tension consumers having captive generation facility synchronized with the grid will pay additional Demand Charges of Rs 20/kVA/month only on the extent of standby demand component.

b) Standby Charges will be levied on such consumers on the standby component, only if the consumers' demand exceeds the Contract Demand.

c) The additional Demand Charges will not be applicable if there is no standby demand and the captive unit is synchronized with the Grid only for the export of power.

10.6 SUPPLY AT 100 kV

a) In the event power is supplied at 100 kV, then the Consumer shall be allowed a rebate of 2% of the monthly energy charges, over the energy charges applicable for supply at 11 kV/22 kV/33 kV.

10.7 PROMPT PAYMENT DISCOUNT

A Prompt Payment rebate of 1% will be allowed on the monthly bill (including energy charges, fixed/demand charges, Reliability Charges and FAC, and excluding TOSE and other taxes) for the HT and LT Industrial and Commercial categories), provided the payment of the bill is received by TPC within 7 (seven) days from the date of issue of the energy bill or within 5 (five) days from date of receipt of the energy bill, whichever is later.

10.8 POWER FACTOR INCENTIVE

Whenever the average power factor of the consumer (Billed at HT tariff rates, LT III or LT V tariff rates) during the month is more that 0.95, an incentive shall be given at the rate of 1% (one percent) of the amount of the monthly bill (including energy charges, fixed/demand charges, Reliability Charges and FAC, and excluding TOSE, and other taxes) for every 1% (one percent) improvement in the power factor above 0.95. For PF of 0.99, the effective incentive will amount to 5% (five percent) reduction in energy bill and for unity PF, the effective incentive will amount to 7% (seven percent) reduction in the energy bill.

10.9 POWER FACTOR PENALTY

The Consumer shall maintain at each of the points of supply an average power factor of not less than 0.90 during the billing month (Billed at HT tariff rates, LT III or LT V tariff rates). If the average power factor of the Consumer at any of the points of supply during the month remains below 0.90, penal charges shall be levied at the rate of 2% (two percent) of the amount of the monthly bill (including energy charges, fixed/demand charges, Reliability Charges and FAC, and excluding TOSE, and other taxes) for the first 1% (one percentage point) fall in the power factor below 0.90, beyond which the penal charges shall be levied at the rate of 1% (one percent) for each percentage point fall in power factor below 0.91.

10.10 Load Factor Incentive

The Commission has introduced a 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 categories only. Further, the load factor rebate will be available only if the consumer has no arrears with TPC-D, 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 TPC-D, and the same is being made as scheduled. TPC-D 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).

10.11 PAYMENT OF BILLS

Bills will be rendered monthly. The due date for the payment of a bill shall be mentioned on the bill, and such due date shall not be less than fifteen (15) days from the bill date, except for residential consumers where the due date shall be not less than twenty one (21) days from the bill date.

10.12 DELAYED PAYMENT CHARGES

If the payment of the energy bill is not made within the due date, a one-time Delayed Payment Charge of 2% of the amount of monthly Electricity bill (excluding statutory levies, Power Factor Penalty) will be payable by the consumer.

10.13 RATE OF INTEREST ON ARREARS

The rate of interest chargeable on arrears will be as given below

SN	Delay in Month (Span of 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	18%

The interest will be payable from the second month after the due date of payment, on the amount of bill plus the one-time delayed payment charges.

10.14 SECURITY DEPOSIT

The Security Deposit payable by consumers shall be equal to the average of 3 months' billing or of the billing cycle period, whichever is less. This dispensation is subject to the provisions of the Supply Code, which would apply.