

**Before the**  
**MAHARASHTRA ELECTRICITY REGULATORY COMMISSION**  
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**Case No. 69 of 2007**

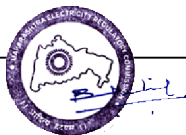
**IN THE MATTER OF**  
**The Tata Power Company Ltd. (TPC) – Distribution Business’ Annual**  
**Performance Review for FY 2007-08 and Petition for Tariff Determination for**  
**FY 2008-09**

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

**ORDER**

**Dated: June 4, 2008**

In accordance with the MERC Tariff Regulations and upon directions from the Maharashtra Electricity Regulatory Commission (Commission), The Tata Power Company Limited’s Distribution Business (TPC-D), submitted its application for approval of Annual Performance Review for FY 2007-08 and Tariff Determination for FY 2008-09, 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 and comments of the public, responses of TPC-D, issues raised during the Public Hearing, and all other relevant material, determines the revenue requirement for the Distribution Business of TPC for FY 2008-09 as under.



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**List of Abbreviations**

ATE	Appellate Tribunal for Electricity
A&G	Administrative and General
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
AS -15 (R)	Accounting Standard – 15 (Revised)
BEST	Brihanmumbai Electric Supply & Transport Undertaking
Capex	Capital Expenditure
CAGR	Compounded Annual Growth Rate
DPR	Detailed Project Report
EA 2003	Electricity Act, 2003
FAC	Fuel Adjustment Cost
FY	Financial Year
GFA	Gross Fixed Assets
GOM	Government of Maharashtra
HPCL	Hindustan Petroleum Corporation Limited
IDC	Interest During Construction
IOC	Indian Oil Corporation
IPP	Independent Power Producers
kVA	kilo-Volt Ampere
kW	kilo Watt
kWh	kilowatt hour
MERC	Maharashtra Electricity Regulatory Commission
MSPGCL	Maharashtra State Power Generation Company Limited
MSETCL	Maharashtra State Electricity Transmission Company Limited
MT	Metric Tonnes
MU	Million Units
MW	MegaWatt
MYT	Multi Year Tariff
O&M	Operations and Maintenance
ONGC	Oil and Natural Gas Corporation Limited
PLF	Plant Load Factor
PPA	Power Purchase Agreement
REL	Reliance Energy Limited
R&M	Repair and Maintenance
Tariff Regulations	MERC (Terms and Conditions of Tariff) Regulations, 2005



TPC	The Tata Power Company Limited
TVS	Technical Validation Session



## **1 BACKGROUND AND BRIEF HISTORY**

The Tata Power Company Limited (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 August 26, 2005. These Regulations superseded the MERC (Terms and Conditions of Tariff) Regulations, 2004.

### **1.2 Commission's Order on ARR and Tariff Petition for FY 2005-06 and FY 2006-07**

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 Sections 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.

### **1.3 Review Petition 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 by issuing the Order dated March 22, 2007. TPC appealed against this Order on the Review Petition filed by TPC, before the Hon'ble Appellate Tribunal for Electricity. The Appellate Tribunal has recently given its Judgment on TPC's Appeal. The Appellate Tribunal has remanded the matter back to the Commission and directed that the ARR be revised in the light of the ATE's directions and the impact taken into account during the next truing-up exercise. Accordingly, TPC should submit the impact of the ATE's Judgment on the ARR of each business separately, viz., TPC-G, TPC-T and TPC-D, and also propose the method of recovery of the impact through revision in tariffs, along with its Petition for Annual Performance Review for FY 2008-09.



#### **1.4 Commission's Order on MYT Petition for TPC-D for FY 2007-08 to FY 2009-10**

TPC submitted its ARR and Multi Year Tariff (MYT) Petitions for the first Control period from FY 2007-08 to FY 2009-10 for its Distribution business on January 9, 2007. The Commission, in exercise of the power vested in it under Sections 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 MYT Order for TPC-D for the first Control Period, i.e., FY 2007-08 to FY 2009-10, on April 30, 2007, which came into effect from May 1, 2007.

#### **1.5 Petition for Annual Performance Review for FY 2007-08 and Tariff Determination for FY 2008-09**

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

TPC submitted its Petition for Annual Performance Review for FY 2007-08 and Tariff Determination for FY 2008-09 for its Distribution business on November 30, 2007, based on actual audited expenditure for FY 2006-07, actual expenditure for first half of FY 2007-08, i.e., from April to September 2007, revised estimate of expenses for October 2007 to March 2008, and projections for FY 2008-09. TPC-D, in its Petition, requested the Commission to

- Undertake truing up for FY 2006-07 based on actual data and consider the efficiency gain/loss and the sharing for FY 2006-07;
- Undertake Annual Performance Review for FY 2007-08;
- Approve the revised ARR and proposed tariff for FY 2008-09.

The Commission, vide its letter dated December 17, 2007, forwarded the preliminary data gaps and information required from TPC-D. TPC-D submitted its replies to preliminary data gaps and information requirement on December 24, 2007.

The Commission held a **Technical Validation Session (TVS)** on TPC's APR for FY 2007-08 and Tariff Petition for FY 2008-09, on December 26, 2007, in the presence of authorised Consumer Representatives. The list of individuals, who participated in





the TVS, is provided at **Appendix-1**. During the TVS, the Commission directed TPC to provide additional information and clarifications on issues raised during the TVS. The Commission also directed TPC to submit the draft 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 TVS, on January 7, 2008, and the Commission admitted the APR Petition of TPC on January 8, 2008.

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 its Petition. TPC issued the public notices in newspapers inviting comments/suggestions from stakeholders on its APR Petition. The Public Notice was published in The Times of India, Indian Express, Loksatta and Samana newspapers on January 9, 2008. 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](http://www.tatapower.com)) and also on the web site of the Commission ([www.mercindia.org.in](http://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 Commission received written objections expressing concerns primarily on procedural issues in case of TPC's Petition. The Public Hearing was conducted in Mumbai on February 13, 2008 at 11:00 hours at **Vista Hall, 30<sup>th</sup> Floor, Centre 1, World Trade Centre, Cuffe Parade, Mumbai-400 020**. 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 Petition for APR for FY 2007-08 and tariff determination for FY 2008-09 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 truing up for FY 2006-07, Annual Performance Review of FY 2007-08 and tariff determination of TPC-Distribution Business for FY



2008-09. Various objections that were raised on TPC-D's Petition after issuing the public notice both in writing as well as during the public hearing, along with TPC's response and Commission's rulings have been detailed in Section 2 of this Order.

### **1.7 Organisation of the Order**

This Order is organised in the following four Sections:

- **Section 1** of the Order provides a brief history of the quasi-judicial regulatory process undertaken by the Commission. For the sake of convenience, a list of abbreviations with their expanded forms has been included.
- **Section 2** of the Order lists out the various objections raised by the objectors in writing as well as during the Public Hearing before the Commission. The various objections have been summarized, followed by the response of TPC and the ruling of the Commission on each of the points.
- **Section 3** of the Order details the truing up of expenses and revenue of TPC's Distribution Business for FY 2006-07, including sharing of efficiency gains/losses due to controllable factors.
- **Section 4** of the Order comprises the Review of Performance for FY 2007-08, covering both physical performance and expenditure heads. This Section also comprises the Commission's analysis on various components of revenue requirement of TPC-D for FY 2008-09, including sales projections, distribution losses, energy balance, power purchase, etc.
- **Section 5** of the Order comprises the Tariff Philosophy adopted by the Commission and the category-wise tariffs applicable for FY 2008-09.



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

There were some specific objections raised in the context of the APR Petition filed by TPC-D, and there were some objections common to TPC-G, TPC-T and TPC-D. Hence, in this Section, the Commission has considered the objections specifically raised in the context of TPC-D's Petition as well as the objections common to TPC-G, TPC-T and TPC-D.

### **2.1 Procedural Issues**

Shri Jude G. Tandon and others quoted the provisions of Regulation 64 (a) of MERC (Conduct of Business) Regulations, 2004, and submitted that adequate time of three weeks as stipulated in the Regulations were not provided to the public to study the documents and submit the responses.

They added that Regulation 8.4 of the MERC Tariff Regulations provides for receipt of a complete application, ready for publication before issuing the Public Notice, and Regulation 9.1 of MERC Tariff Regulations provides for the application to be filed 120 days before the revised tariff comes into force. They further submitted that the first proviso, third proviso and explanation to Regulation 8.5 of the MERC Tariff Regulations requires all data to be made available to the public, in its entirety, including calculations, formulae and linked spreadsheets. However, the complete data was not provided to the public.

It was also submitted that the Commission should follow the principle laid down in the National Tariff Policy (NTP) for determination of tariff and referred to Para 5.0 (h) (3) of the National Tariff Policy issued on January 1, 2006. They mentioned that as per NTP, under MYT regime, the tariff should be revised only at the end of the first Control Period.

### ***TPC-D's Response***

TPC submitted that as per the directions of the Commission, TPC published the initial Public Notice on January 9, 2008, wherein the date for Public Hearing was fixed as February 6, 2008. Thereafter, the Commission postponed the Public Hearing to



February 13, 2008 in order to give the general public enough time to submit their comments.

***Commission's Ruling***

As mentioned in Section 1 of the Order, TPC submitted its Petition for Annual Performance Review for FY 2007-08 and determination of revenue requirement for FY 2008-09 for its Transmission business on November 30, 2007. The Commission communicated the data gaps in the Petition and held a Technical Validation Session on TPC-D's Petition, in the presence of authorised Consumer Representatives. Upon submission of revised Petition by TPC-D incorporating the additional information and replies to queries raised by the Commission, the Petition was admitted for further public process on January 8, 2008. The Commission directed TPC-D to host the detailed Revised APR Petition and formats in MS Excel on its website for easy download by interested stakeholders.

The Public Notice was published on January 9, 2008 in leading newspapers and the public hearing was originally scheduled to be held on February 6, 2008. Considering the requests made by the stakeholders for additional time and allegations that the Petition documents were not available at the concerned offices on the due dates, the Commission postponed the Public Hearing, which was finally held on February 13, 2008. Thus, adequate time, as envisaged under the Regulations 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.

As regards determination of tariff on annual basis, the Commission in its MYT Order for TPC-D dated April 30, 2007 has approved the trajectory of performance parameters and expenditure heads for TPC's Distribution business for the Control Period from FY 2007-08 to FY 2009-10. The Tariff Regulations provide for undertaking Annual Performance Review in each year during the Control Period. Hence, the Commission in this Order, has revised the revenue requirement of TPC-D for FY 2008-09, on the basis of the trued up expenditure for FY 2006-07. Further, the Commission is of the view that the provisions of the National Tariff Policy referred by the objectors do not stipulate that the tariff cannot be determined on an annual basis.



## 2.2 O&M Expenses

Shri Naveen Shetty submitted that the projected O&M expenses during FY 2007-08 represent a phenomenal jump over actual O&M expenses during FY 2006-07. Shri Shetty requested the Commission to look into two crucial components of the O&M expenses, viz., Employee Cost and Administrative & General Expenses. Shri. Shetty further requested the Commission to set norms for acceptable normative increases based on the historical trends and weightage for uncontrollable factors.

### *TPC-D's Response*

TPC submitted that reasons of deviation from the approved O&M expenses are revision in Accounting Standard (AS-15) leading to reworking of retirement benefits for employees, revised base for employee expenses, provision for higher insurance charges on account of higher sum insured, provision for higher water charges on account of BMC water charges, MPCB water cess charges, provisions for levy of non-agricultural charges for all privately purchased land owned by TPC whereas earlier provision was for levy only on land where TPC had developed its infrastructure, provision of doubtful debts, up gradation in IT Infrastructure, increased expenditure due to cable faults, theft-prevention and patrolling activates and impact of inflation.

### *Commission's Ruling*

Under the truing up process, the Commission has considered the audited O&M expenses for FY 2006-07 subject to prudence check as elaborated in Section 3 of the Order. For FY 2007-08 and FY 2008-09, the Commission in its MYT Order for the first Control Period approved the O&M expenses in accordance with the norms stipulated in MERC (Terms and Conditions of Tariff) Regulations, 2005, and on the basis of the approved expenditure for FY 2006-07, which was the base year for the MYT Control Period. However, as elaborated in Section 4 of the Order, the Commission has undertaken the provisional truing up of O&M expenses for FY 2007-08, and has revised the approved expenses for FY 2007-08, on the basis of the trued up expenditure approved by the Commission for FY 2006-07.

## 2.3 Reserve Fund

The Mill Owners' Association, Mumbai (MOA) submitted that the amounts to the credit of all reserves with TPC should be fully drawn down to meet the expenses, if not done so till now.



### ***TPC's Response***

TPC has not responded to this objection.

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

The Commission, in its previous Tariff Orders for TPC, 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. 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 Tariff Orders for TPC, as well as the Commission's Order on the Review Petition filed by TPC in Case No. 47 of 2006.

### **2.4 Cost of Supply and Proposed Tariffs**

Central Railways submitted that TPC-D's tariff should reflect the Cost to Supply (CoS). Central Railways added that Section 61 of the EA 2003, and Clause 8.3 of National Tariff Policy clearly specify that the tariff should reflect CoS. Regulation 4.1 of MERC (Terms and Conditions of Tariff) Regulations, 2005 clearly specifies that determination of tariff shall be guided by the principles contained in Section 61 of the EA, 2003.

Further, Central Railways opposed any increase in the tariff and also opposed TPC's proposal to merge FAC charges with existing energy charges, and added that TPC's FAC charges needs to be verified. Central Railways requested the Commission to establish a transparent mechanism for FAC determination on a month-to-month basis.

Central Railways and Mill Owners' Association requested the Commission to continue the prompt payment incentive and power factor incentive, and suggested that load factor should be provided for maintaining load factor higher than 50%. Central Railways further submitted that additional prompt payment discount of 0.50% for Electronic Clearing Services (ECS) being proposed for residential consumers should also be extended to Central Railways. Central Railways submitted that it should be relieved from the burden of distribution loss as Railways has its own network.

The Mill Owners' Association, Mumbai (MOA) submitted that the proposed increase in tariff for HT consumers (i.e., energy charges and demand charges) result in aggregate charges of 573 Paise/kWh for FY 2008-09, which is an effective increase of over 53% over FY 2006-07 levels. MOA submitted that this increase in tariff is not affordable by the industry. Western Glass Manufacturer's Association (WGMA)



objected to the proposed increase in HT-II tariff by 5 % over the existing tariffs. WGMA submitted that the tariff revision w.e.f May 1, 2007, for HT-II Industrial consumers was unreasonable, discriminatory and unfair besides being violative of the provisions of Sections 61 and 62 of the Electricity Act, 2003, and the National Tariff Policy and the National Electricity Policy.

WGMA submitted that in the Tariff Order dated April 30, 2007, in Case No. 70 of 2006, the Commission increased the tariff of HT-II Industrial consumers by 40 %, while reducing the tariff of Railways by 8 %. WGMA submitted that Railways are a rich organisation, and should not be cross-subsidised at the cost of HT-II Industrial consumers, who are struggling for their survival in the city of Mumbai.

#### ***TPC-D's Response***

TPC submitted that in the previous Orders, the Commission and all the Utilities have been computing the extent of cross-subsidy with reference to the average cost of supply. The tariff proposed for Railways is Rs.3.76 per kWh, compared with the average cost of supply of Rs.5.11 per kWh. Thus, the tariff of Railways is 74% of average CoS.

TPC-D appreciated the concern of MOA and submitted that increase in tariff is on account of very steep rise in the fuel prices. TPC added that TPC has not proposed any effective increase in tariff for FY 2008-09 as compared to the existing tariff on average basis, i.e., after considering the present FCA.

The FAC recovery is done on the basis of the formula approved by the Commission in the Tariff Order and Tariff Regulations, and the formula was finalised after due Public process. The FAC vetting is done on a quarterly basis and the same is approved by the Commission and detailed calculations are available on the Commission's website for the reference of the general public.

#### ***Commission Ruling***

The Commission has retained the prompt payment incentive and power factor incentive at the existing levels. The Commission finds merit in the suggestion that the rebate for ECS payment should be extended to the Railways. The Commission rules that the ECS payment facility should be extended to all consumer categories, including Railways and the rebate should be offered to all consumers, since the basic objective is that such payment modalities reduce the load on the licensees' collection system.



As regards the modification to the applicability of load factor incentive, the Commission does not find any merit in the suggestion. The objective behind this incentive is not to ensure that some consumer gets the incentive, rather, the objective is to ensure that the load factor of the system is maintained at higher levels, to maximize the utilization of the load, and hence, there will be no benefit in offering load factor incentive for load factor above 50%.

The distribution loss is applicable to all consumer categories, since it is a pooled loss and cannot be segregated for different consumers. This involves computation of the category-wise cost to serve, which is a very elaborate exercise, and involves reliance on several assumptions. The Commission has been determining tariff on the basis of the average cost of supply, and has determined the tariff for FY 2008-09 on the same basis. The Commission's tariff philosophy and the reduction in cross-subsidy have been elaborated in Section 5 of this Order. Moreover, the issue of tariff revision done by the Commission in the previous Tariff Order is not a subject matter of this APR Petition, and similar issues raised have already been addressed by the Commission through its Orders on the Review Petitions filed by some consumers.

The philosophy behind the Fuel Adjustment Cost (FAC) Charge has been elaborated in several Orders by the Commission, and is not being reiterated here. Since the power purchase costs are based on the prevailing fuel costs, the prevailing FAC is effectively equated to zero, and will come into the picture, in case there is a variation in the fuel prices (positive or negative) and the generators ask TPC-D to pay for the difference in fuel costs, which is a pass-through expense. The FAC is allowed to be recovered on a monthly basis, in accordance with the Formula stipulated in the Regulations, and the FAC is vetted on a post-facto basis for each quarter. The detailed vetting reports are available on the Commission's website.

## **2.5 Time of Day Tariff (ToD)**

MOA and Rashtriya Chemicals and Fertilisers (RCF) proposed that TOD rebate should be given for consumption in time slots other than the peak period of 1800 hours to 2200 hours.

### ***TPC-D's Response***

TPC submitted that ToD rebate in a particular time slot may be made applicable if the Commission feels that that it would incentivise shift in consumption from peak hours





to off-peak hours. Further, TPC requested the Commission to structure the ToD tariff in such a manner that it keeps TPC revenue neutral on account of the same.

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

The Commission has designed the TOD tariffs in such a manner that it disincentivises consumption during the peak hours in the State, and incentivises shift in consumption from peak hours to off-peak hours, by charging higher tariffs for consumption during peak hours and providing a rebate for consumption during off-peak hours. The details of time-slots and applicable ToD tariffs have been elaborated in the Section 5 on Tariff Philosophy.

## **2.6 Consumer Categorisation**

Rashtriya Chemicals and Fertilizers Ltd. (RCF) submitted that subsequent to the previous tariff revision, RCF has been categorised under HT-II Industries, whereas a similar group of industries in Mumbai such as HPCL and BPCL have been categorised under 'HT-I HT Public and CPP'. RCF submitted that RCF is also a Public Sector Undertaking (PSU), like BPCL and HPCL, and also an erstwhile Captive Power Plant (CPP) user, therefore, RCF should also be categorised under HT-I CPP category.

The Association of Hospitals, Mumbai submitted that charitable hospitals registered with Charity Commissioner under The Bombay Public Trust Act, 1950 should not be billed under LT-I category, and should be billed either under LT-II industrial or LT-III industrial. Alternatively, if hospitals with LT load continue to be categorised under LT-III category, then a special sub-category should be created with a subsidy component in tariff, while hospitals getting supply at HT voltages should be categorised under HT-I Category.

### ***TPC-D's Response***

TPC submitted that one of the reasons for not categorising RCF as CPP, is that the tariff schedule is applicable to "Government Departments, Bhabha Atomic Research Centre (BARC), Brihanmumbai Municipal Corporation (BMC), Mumbai Port Trust, and Industrial Units classified under *erstwhile* CPP category" (emphasis added). TPC submitted that the CPP of RCF, although commissioned in 1980, was not operational for a long time, before it started generating again in FY 2007-08. TPC requested the Commission to take a view regarding categorisation under CPP category.



As regards the objection regarding classification of charitable hospitals, TPC submitted that S.L. Raheja Hospital is categorised under HT-III and Dr. L H Hiranandani Hospital, Mumbai, is categorised under LT-III. Hence, the charitable hospitals are already categorised as proposed.

***Commission's Ruling***

The Commission has attempted to ensure that the categorisation of consumers and the applicability of tariffs across different licensees is uniform, though the tariffs are varying, depending on the revenue requirement and consumption mix. The categorisation has been rationalised depending on the historical classification, voltage of supply, and purpose for which electricity is supplied, amongst other aspects. However, in order to provide certain relief to the consumers who have lower load factor, the Commission has significantly reduced the fixed charges and demand charges payable by these categories, and correspondingly increased the consumption related charges such as energy charges, reliability charges, etc., so that the consumers are billed more for their actual consumption rather than the load, and the licensees also have an incentive to ensure that continuous 24 hour supply is given to the consumers.

As regards the proposals regarding charitable hospitals getting supply at LT and HT voltages, the Commission does not find any merit in the suggestion. The suggestion given by the Association of Hospitals appears to be with the sole objective of reducing the applicable tariff, since it has been submitted that irrespective of the categorisation, the tariffs should be subsidised. Hospitals cannot qualify to be considered under industrial category. The alternative to classification under LT-1 category would be to classify such consumers under LT-2 commercial category, which would result in further tariff increase, and hence, the Commission has not modified the tariff applicability for such consumers. Moreover, the Commission would not like to comment on whether such charitable hospitals are really charitable in nature and 'not for profit' as suggested by the objectors.

The classification of consumers such as HPCL and BPCL under the CPP category was continuing on account of historical reasons, and in this Order, the Commission has excluded such industrial consumers, irrespective of ownership, from coverage under HT I category, which will henceforth, comprise only users such as Government Departments, Bhabha Atomic Research Centre (BARC), Brihanmumbai Municipal Corporation (BMC), Mumbai Port Trust, and other Public Utilities, getting supply at



HT voltages, etc. Consumers having CPPs will henceforth, be covered under HT III industrial category, along with other industrial consumers, including textile industries.



### **3 TRUING UP OF AGGREGATE REVENUE REQUIREMENT FOR FY 2006-07**

TPC, in its Petition for Annual Performance Review for FY 2007-08 and determination of revenue requirement for FY 2008-09, included a section on the final truing up of expenditure and revenue for FY 2006-07 based on actual expenditure and revenue as per audited accounts. TPC provided the comparison of actual expenditure against each head with the expenditure approved by the Commission along with the reasons for deviations and also proposed the sharing of the efficiency gain/loss for each head of expenditure/revenue, as applicable.

As regards truing up of revenue for FY 2006-07, TPC submitted that the previous Tariff Order for TPC prior to the issue of MYT Order was issued in October 2006, in which the Commission approved the ARR and tariff separately for Generation, Transmission and Distribution business of TPC. Before the issuance of Tariff Order for FY 2006-07, TPC was maintaining combined revenue accounts for the three businesses of Generation, Transmission and Distribution. After the issue of Tariff Order for FY 2006-07 in October 2006, the revenue principles underwent a change. Thus, the actual revenue for FY 2006-07 is available in two parts as follows:

- § Part 1: April 2006 to Sept 2006 - Revenue based on integrated tariff for TPC consumers, including distribution licensees, viz., BEST and REL-D 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 due to the above mentioned reasons, it would not be possible to segregate the revenues and income tax amongst the three business to provide a complete picture of the performance of FY 2006-07 and resultant gap/surplus. The expenditure (excluding income tax) of each business is captured separately and can be reviewed as compared to approved expenditure. TPC, hence, proposed the truing up of revenue and income tax for FY 2006-07 on consolidated basis in the APR Petition of TPC-D.

Accordingly, the Commission in this Section has analysed all the elements of actual expenditure for TPC-D for FY 2006-07, including the truing up of revenue and income tax for FY 2006-07 on consolidated basis for TPC's licensed business in Mumbai, to arrive at net gap/surplus in this Order on TPC-D's APR Petition.



Further, as the Commission has stipulated in its Order dated October 3, 2006 that the gains and losses on account of controllable and uncontrollable factors will be computed at the time of truing up of ARR based on actuals and prudence check in accordance with Regulation 19 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, the Commission has approved the sharing of gains and losses of TPC-D in this Section.

### 3.1 Sales

TPC-D submitted the month-wise actual category-wise sales in the Formats annexed to the APR Petition, and also submitted the summary of actual sales in the two halves of the financial year, as follows:

*Table: TPC-D's Actual Sales in FY 2006-07 (MU)*

Sl.	Particulars	Tariff Order	Actuals		
			H1	H2	Total
1	Sales	2365	1289	1233	2522

The actual sales have been higher than the sales considered in the Tariff Order, by 157 MU. TPC-D submitted that the variation is primarily on account of a large increase in sales in the CPP category, due to HPCL reducing generation from their captive DG set and drawing power from TPC-D. TPC added that this consumption is expected to increase, on account of expansion of HPCL's refining capacity.

The Commission has considered the actual sales under the truing up process.

### 3.2 Distribution Losses and Energy Input Requirement

TPC-D submitted that since the industry structure in the State and the power procurement process has undergone a change from October 2006, the sales and energy input of FY 2006-07 has to be considered separately. For H1 of FY 2006-07, TPC-D was operating with an integrated retail tariff and providing power for meeting the requirements of all three distribution licensees in Mumbai, through generation from TPC-G as well as power purchase from other sources. In H2 of FY 2006-07, TPC-G has commenced sale of power to the distribution licensees including TPC-D, while TPC-D procured the additional power required under a separate arrangement with the licensees. Accordingly, TPC-D proposed the following method for computing the energy requirement of H1 and H2:



**From April – September 2006, i.e. before the application of Tariff order dated October 3, 2006:**

The computation of Energy balance is based on

- a) Actual units generated (Net);
- b) Actual power purchases; less
- c) Actual sales to the three Distribution Licensees by TPC as an integrated utility,
- d) For the purpose of computing the Transmission Loss of the transmission network of TPC-T, the retail sales of TPC-D have been grossed up by 2.93%.  
The derived transmission loss excluding sale to MSEDCL works out to 1.7%.

**From October 2006 – March 2007, i.e. after the application of Tariff Order dated October 3, 2006:**

The computation of Energy balance is based on

- a) TPC-D sales grossed up by 2.93% to account for the distribution loss of TPC-D as approved by the Commission;
- b) This has been met by TPC-D's share of net generation from TPC-G, as approved by the Commission in the Tariff Order dated October 3, 2006;
- c) Purchase from Supa Wind plant of TPC to meet the RPO ; and
- d) Power purchases from MSEDCL and other external sources for all three Distribution Licensees as permitted by the Commission in the Tariff Order dated October 3, 2006.

The Commission has accepted the energy balance as submitted by TPC-D for FY 2006-07.

### **3.3 O&M Expenses**

Operation and Maintenance (O&M) expenditure comprises employee related costs, Administrative and General (A&G) Expenses, and Repair and Maintenance (R&M) expenditure. TPC-D's submissions on each of these expenditure heads, and the Commission's ruling on the truing up of the O&M expenditure heads are detailed below.

#### **3.3.1 Employee Expenses**

TPC submitted that the total actual employee related expenses for FY 2006-07 was Rs 10.83 Crore against Rs 9.97 Crore approved by the Commission.



TPC submitted that the Commission approved the employee expenditure for TPC as whole for FY 2006-07, FY 2007-08 and FY 2008-09 by considering the Employee Expenditure of FY 2004-05 as a base and applying a suitable escalation factor to compensate for inflation. TPC submitted that the expenditure for FY 2004-05 reported for the clear profit workings was not the actual expenditure for the year but the expenditure arrived at by considering a write back amount of Rs 15 Crore on account of certain excess provisions made during wage negotiations. TPC submitted the comparison of the actual employee expenditure for TPC as whole from FY 2002-03 to FY 2005-06 with that considered for Clear Profits workings to explain the issue.

TPC submitted that the Commission considered the adjusted employee expenditure for FY 2004-05 as the base expenditure for estimating the approved expenditure for FY 2006-07 and thereafter for the MYT Control Period from FY 2007-08 to FY 2009-10. TPC further submitted that if the actual expenditure is considered as the base, then the allowable expenditure of TPC-D for FY 2006-07 would have been Rs. 11 Crore, as compared to the Rs. 10 Crore allowed by the Commission. TPC requested the Commission to correct this 'set back'.

TPC added that the power sector is facing challenges from the existing and new players in the business, which has resulted in increased compensation packages. Moreover, TPC has increased manpower costs at a CAGR of 2.9% only in the previous 5 years, which is lower than the inflation rates. Hence, there was an urgent need to correct the compensation packages to retain the experienced manpower, which is being undertaken in a gradual manner from FY 2006-07, to avoid a sudden tariff increase.

TPC further submitted that the Commission had considered an effective escalation of about 3.69% (rise from Rs 133 Crore in FY 2004-05 to Rs 143 Crore in FY 2006-07 for TPC as a whole over a two year period) as compared to the actual inflation of 6.72% for FY 2006-07. TPC assessed the correction on this account as Rs. 1 Crore. TPC added that TPC has paid a higher performance bonus in FY 2005-06 as compared to the provision made in that year, which has been reflected through an additional provision of Rs. 1 Crore in FY 2006-07. TPC submitted that considering the above reasons, the employee expenses should have been about Rs. 12 Crore, whereas TPC has managed to contain this cost through various measures to Rs. 11 Crore.



The Commission analysed the actual employee expenses for FY 2006-07 under various heads vis-à-vis the actual expenditure in FY 2005-06. The increase in employee expenditure under the sub-heads of other allowances and bonus/ex-gratia payment was significantly higher than that observed in the past, and TPC was asked to justify the same. TPC submitted that the increase was due to the short payment in FY 2005-06 in respect of performance award, and increase in performance award and annual gift given in FY 2006-07 over FY 2005-06.

Considering the impact of the set-back as stated by TPC, and considering the details of actual employee expenses and reasons submitted by TPC for increase in employee expenses, the Commission has allowed the actual employee expenses under the truing up exercise for FY 2006-07. The summary of the employee expenses as sought by TPC and approved by the Commission after truing up has been shown in the following Table:

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

Particular	Tariff Order	Audited	Allowed after truing up
Employee Expenses	9.97	10.83	10.83

### 3.3.2 A & G Expenses

TPC submitted that the actual A&G expenditure for FY 2006-07 was Rs 12 Crore as against Rs 9 Crore approved by the Commission.

The Commission directed TPC to submit certain additional information to justify the A&G expenditure incurred in FY 2006-07. TPC also submitted the details of expenditure under the sub-head 'Others' under A&G expenses. The Commission observed that the 'other expenses' sub-head under A&G expenses includes an expense of Rs 1 Crore towards 'Tata Brand Equity'. The Commission asked TPC to submit the basis and need for this expense, and also to provide the rationale for including this expense as recoverable from consumers. TPC, in its reply, submitted that as per the terms of the BE-BP (Brand Equity – Brand Promotion) agreement signed by the Tata Group Companies with Tata Sons, the Tata Group Companies are required to comply with certain growth targets and would in turn be entitled to use of Tata Brand name, Brand Logo and other benefits upon payment of an annual fee. This fee is calculated as lower of 0.25% of the Revenue or 5% of Profit before Tax (subject to a ceiling of Rs. 50 Crore).





TPC submitted that the brand equity extends the name of 'Tata' to TPC, which confers several benefits to TPC. The Group promotes TPC through advertisements as a part of the Group, which leads to brand building for TPC. The Group also makes available central services like recruitment, training courses and common procurement services. Being recognised as part of such an eminent Group, it facilitates purchases at competitive prices by the Company and also provides access to best credit facilities and loan facilities at very competitive rates. For instance, import of goods such as coal has been facilitated many times without Letter of Credit but merely on acceptance of documents. The brand due to its positive image also helps TPC in attracting good human resource talent. Further, the Group makes available the Tata Business Excellence Model and trains managers on the same and evaluates the Company every year to enable the Company to improve its processes and customer servicing abilities, which is of immense benefit to the Company in the short and long run to ensure operations of global standards and efficiencies. TPC further submitted that such benefits of lower cost and other indirect benefits outlined have been passed on the consumer in the different years. TPC also stated that the Commission while approving the amount of A&G expenditure for TPC for FY 2006-07 and onwards had considered the trend in the expenditure under this head (A&G) for the last few years, and that the A&G expenditure in the past (at least from FY 2001-02) had included the expenditure under this sub head ("Tata Brand Equity"). Further, the Clear Profit computation (and therefore the expenditure under this sub head) upto FY 2002-03 has been approved in toto by the Hon'ble Commission, which included the expenditure under this sub head.

The Commission is of the opinion that this expense of Rs 1 Crore towards Tata Brand Equity is a sort of internal arrangement between the Group Companies and this amount is paid to the promoter of the Company, viz., Tata Sons. The kind of support provided by Tata Sons to TPC, as stated by TPC in above paragraphs is normal and usually in business, the promoter provides such support to its Group Companies as it also earns returns from its Group Companies. TPC itself is a 100 year old business and a brand name in its own right and with assured returns in a regulated business, has all the financial and other goodwill to conduct its business optimally. Therefore, the Commission is of the view that the amount paid by TPC to Tata Sons under Tata Brand Equity should not be separately allowed, as it would amount to provide the promoters additional return on equity. As per the MERC Tariff Regulations, a Distribution Licensee can only be provided a regulated Return on Equity of 16% on the regulatory equity as estimated by the Commission and if any expense towards the Tata Brand Equity is allowed, then it would tantamount to allowing a higher Return



on Equity. For FY 2006-07, if this expense of Rs 1 Crore is considered, the ROE works out to around 16.8%. TPC, in its additional submissions, has stated that the ceiling for expenditure under this head is Rs 50 Crore and if around Rs 5 Crore (proportionately shared between TPC-G, TPC-T and TPC-D, since the ceiling for TPC as a Company is Rs. 50 Crore) is considered as additional return, than the effective RoE works out to more than 20%.

TPC also submitted that the Commission has allowed the expense under this head in previous years as the Commission in its previous Orders has allowed A&G expenses based on past trends. The Commission would like to highlight that the details of amount spent in the previous years on Tata Brand Equity is not available with the Commission, and moreover, this issue is not relevant to the present APR and tariff determination process.

The summary of A&G expenses approved in the Order, actual A&G expenses and A&G expenses approved after truing up for FY 2006-07 has been shown in the following Table:

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

Particular	Tariff Order	Actuals	Allowed after truing up
A&G Expenses	9.97	12.45	11.45

### **3.3.3 R&M Expenses**

TPC submitted that the actual R&M expense for FY 2006-07 was Rs 4.89 Crore as against Rs 2.90 Crore approved by the Commission in the Tariff Order. TPC-D submitted that the increase in the R&M cost of TPC-D is mainly on account of increased patrolling work in order to minimise the reduction in cable faults on account of enhanced infrastructure construction activity by MMRDA, and diversion of cables on account of the concretisation of roads in Mumbai by MMRDA.

The Commission has considered actual R&M expenses of Rs 4.89 Crore for FY 2006-07 under the truing-up process. However, these expenses are of one time in nature and will not form a part of base for future years.



### 3.4 Depreciation

The Commission, in its earlier Order dated October 3, 2006, had permitted depreciation to the extent of Rs 11.74 Crore for FY 2006-07, which amounts to 4.07% of Opening level of Gross Fixed Assets (GFA) of TPC-D for FY 2006-07, which was stated at Rs 288.61 Crore. The depreciation rates were considered as prescribed under MERC (Terms and Conditions of Tariff) Regulations, 2005. TPC, in its APR Petition, submitted that the actual depreciation expenditure incurred in FY 2006-07 was Rs 13.50 Crore.

The Commission has examined the depreciation and actual capitalisation claimed by TPC in detail as against the various capex schemes approved by the Commission. The Commission observed that the actual opening level of GFA for FY 2006-07 amounts to Rs 359.25 Crore as against Rs 288.61 Crore considered by the Commission in its Tariff Order. The increase in Op. GFA is mainly on account of assets capitalised by TPC towards network development related activities, which had not been considered at the time of earlier Order. However, in view of recent Judgement of Appellate Tribunal for Electricity dated May 12, 2008 (Appeal 60 of 2007), the ARR will have to be revised and its impact needs to be taken into account during true-up exercise. In this Order, the Commission has directed TPC to submit the impact of the ATE Judgement on ARR of each business separately, viz. TPC-G, TPC-T and TPC-D and also to propose the method of recovery of the impact through revision in tariff, alongwith its Petition for Annual Performance Review for FY 2008-09. However, as there is a clear direction of the ATE to include capitalisation of network development related works, the Commission has considered Op. GFA for FY 2006-07 as claimed by TPC-D.

In addition, the Commission sought clarification from TPC to reconcile the opening GFA for its generation, transmission and distribution business with its audited financial statements for FY 2006-07. Accordingly, TPC furnished reconciled Statement of Opening GFA for its three businesses, which indicates Opening GFA for distribution business as Rs 359.25 Crore. Accordingly, for the purposes of true-up exercise for FY 2006-07, the Commission has considered opening GFA for TPC's distribution business at Rs 359.25 Crore as claimed by TPC, as per its audited accounts.

Further, the Commission notes that against permitted capitalisation of Rs 13.81 Crore in its earlier Tariff Order, actual capitalisation by TPC-D during FY 2006-07 amounted to Rs 37.03 Crore. The Commission has verified the actual capitalisation



claimed by TPC-D against the capex schemes already approved by the Commission. Further, TPC-D in its additional submissions, confirmed that depreciation has not been claimed beyond 90% of the asset value in line with the Tariff Regulations. The depreciation expenditure approved by the Commission for FY 2006-07 has been summarised in the following Table:

**Table: Depreciation** (Rs Crore)

Particulars	Tariff Order	Actuals	Allowed after truing up
Depreciation	11.74	13.50	13.50
Opening GFA	288.61	359.25	359.25
Depn as % of Op. GFA	<b>4.07%</b>	<b>3.76%</b>	<b>3.76%</b>

### 3.5 Interest Expenses

The Commission, in its earlier Order dated October 3, 2006, had approved interest expenditure of Rs 2.13 Crore, after considering the interest expense on normative debt corresponding to capitalised assets only. The Commission had considered the interest rate of 10% p.a. for the assets put to use during FY 2004-05 and FY 2005-06, and interest rate of 8% p.a. for assets put to use during FY 2006-07, and accordingly considered the weighted average rate of interest as 9.6%.

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

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

#### 3.5.1 Interest on Debt

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 was Rs 6.44 Crore as against Rs 2.13 Crore approved by the Commission. The Commission notes that variation in interest quantum as claimed by TPC-D and that considered in the Tariff Order is mainly on account of the variation in the opening loan balance. The Commission has



verified the Opening loan balance for distribution business as claimed by TPC-D and sought clarification from TPC for reconciliation of its claim vis-à-vis its audited financial statements for various businesses. Accordingly, for the purposes of truing-up exercise for FY 2006-07, the Commission has considered opening loan balance for TPC's distribution business at Rs 55.89 Crore as claimed by TPC, as per its audited accounts.

The Commission has considered the interest expenditure on the normative debt corresponding to capitalised assets only and has considered the interest rate of 10% p.a. for the assets put to use during FY 2004-05 and FY 2005-06. As regards assets put to use during FY 2006-07, the Commission has considered loan terms for the actual loan availed by TPC from IDFC. The Commission has verified yield-to-maturity (YTM) rate for 5 year G-Sec which was around 7.45% to 7.55%. Hence, for the purpose of interest expenditure computation for FY 2006-07, the Commission has considered interest rate at minimum of 8.90% p.a. as stated by TPC under its Petition.

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

Particulars	Tariff Order	Actuals	Allowed after truing up
Opening balance of loan	18.80	55.89	55.89
Additions	9.66	25.92	25.92
Repayment	(2.79)	(6.12)	(6.12)
Closing balance of loan	25.67	75.69	75.69
<b>Interest expenditure</b>	<b>2.13</b>	<b>6.44</b>	<b>6.44</b>
Wt. avg. Interest cost (%)	9.6%	9.8%	9.8%

### **3.5.2 Other Finance Charges**

TPC submitted that the actual expenditure under Other Finance Charges was Rs. 2.87 Crore as compared to Rs. 0.02 Crore allowed by the Commission in the Tariff Order, on account of the interest payable on the FAC refundable to HPCL and Central Railways.

In response to the Commission's query in this regard, TPC submitted that certain unadjusted credits due to Central Railway and HPCL since 1994, to the extent of Rs. 73 lakh and Rs. 1.60 crore, had been refunded with interest at the rate of Security Deposit interest rate. The expense on this account was Rs. 2.59 crore, which has been included under other finance charges. The Commission is of the view that these are not the other finance charges as this corresponds to interest paid to consumers and are



one time expenses. The Commission has considered this one time expense of Rs 2.59 Crore as part of A&G expenses. The Commission has thus allowed the other finance charges of , under the truing up exercise, amounting to Rs. 2.87 crore.

### **3.5.3 Interest on Working capital**

As regards interest on 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:

<b>Month</b>	<b>PLR</b>
April - May	10.25%
May – August	10.75%
August – 27 <sup>th</sup> Dec	11.00%
27 <sup>th</sup> Dec onwards	11.50%

TPC submitted that it has estimated the Interest on Working Capital (IWC) considering average interest rate @ 11% as per the components of Working Capital specified in the Tariff Regulations, with the revised Interest on Working Capital estimated at Rs 6.54 Crore as against Rs 3.50 Crore approved by the Commission in the Tariff Order. Further, TPC confirmed in its reply to additional queries raised by the Commission that though there is a need for working capital, TPC-D has not availed any loan for working capital and has funded such working capital through internal accruals. Hence, TPC has not actually incurred any expenditure towards interest on working capital during FY 2006-07.

As regards interest on working capital, TPC-D submitted that the actual expense was Rs. 1.42 crore, as compared to the approved expense of Rs. 2.75 crore.

The Commission has considered the normative interest on working capital for truing up purposes, in accordance with the Tariff Regulations and the expenses allowed under the truing up exercise. However, the Commission has computed the sharing of gains/losses on the basis of normative working capital interest and the actual working capital interest incurred, which in this case is zero, since this is a controllable parameter. Further, the Tariff Regulations stipulate that rate of interest on working capital shall be considered 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 at the time when TPC filed the Petition for tariff determination for FY 2006-07 was 10.75%, the Commission has considered the interest rate of 10.75 % for



estimating the normative interest on working capital, which works out to Rs 6.46 Crore. The interest on consumers' security deposit has been accepted at actuals, as submitted by TPC-D.

### 3.6 Return on Equity (RoE)

TPC submitted that based on the capital expenditure and capitalisation and debt:equity norm of 70:30, the return on equity on the equity portion has been considered at 16%. Further, TPC has computed RoE on the opening equity as well as on the equity portion of the capitalisation during the year.

The Commission has computed the RoE for FY 2006-07 on the opening balance of equity as well as on 50% of the equity portion of capitalisation during the year, in accordance with the Tariff Regulations as applicable for the distribution business.

The summary of RoE as projected by TPC and approved by the Commission for FY 2006-07 is given in the following Table:

**Table: Return on Equity**

**(Rs Crore)**

Particulars	FY 2006-07		
	Tariff Order	Revised Estimate by TPC	Allowed after truing up
Regulatory Equity at the beginning of the year	117.64	117.64	117.64
Equity portion of assets capitalised during year	4.14	11.11	11.11
Regulatory Equity at the end of the year	121.78	128.75	128.75
Return on Regulatory Equity at the beginning of the year	18.82	18.82	18.82
Return on Equity portion of capitalised asset value during year	0.33	0.89	0.89
<b>Total Return on Regulatory Equity</b>	<b>19.15</b>	<b>19.71</b>	<b>19.71</b>

### 3.7 Contribution to Contingency Reserves

TPC has provided for Rs. 1.67 Crore as contribution to contingency reserve in FY 2006-07, as against Rs 1.44 Crore considered in the Tariff Order. The Commission has considered the contribution towards contingency reserve as 0.5% of GFA under the truing up exercise, at Rs. 1.80 crore.



### 3.8 Non Tariff Income

TPC submitted that the non-tariff income largely comprises non-recurring income, except for rental income. TPC submitted that the actual non-tariff income for FY 2006-07 is higher at Rs 16.41 Crore as against Rs 3.22 Crore approved in the Tariff Order mainly on account of increase in non-recurring items such as interest received on income tax refund, delayed payment charges and interest on delayed payment

The Commission has considered the actual non-tariff income reported by TPC-D, under the truing up exercise, as shown in the Table below:

**Table: Non-tariff income for FY 2006-07 (Rs Crore)**

Particulars	Tariff Order	Actuals	Allowed after truing up
Non-tariff Income	3.22	16.41	16.41

### 3.9 TRUING UP OF CONSOLIDATED ARR FOR TPC FOR FY 2006-07

TPC-D, in its Petition, submitted that the Commission issued the Tariff Order dated October 3, 2006 for TPC and its three businesses and specified different tariff structures for each business of TPC, viz., generation, transmission and distribution, considering the inherent nature of each business.

TPC-D submitted that the said Order was made effective prospectively from October 1, 2006 thereby resulting in a situation where TPC operated under two different regimes in FY 2006-07 with distinct features as shown in the Table below:

TPC H1: April 2006 – September 2006:	H2: October 2006 – March 2007:
Integrated tariff regime with costs of each business inbuilt into a tariff applicable to Distribution Licensees & Retail consumers;	Specific tariff regime for each business
TPC responsible for servicing all the three Distribution Licensees, including their power purchase requirement	TPC-G and TPC-T servicing all three Distribution Licensees; TPC-D servicing only its retail consumers;
FAC charged to all consumers and Distribution Licensees with a cap of 21 paise per unit “applicable to all” – leading to a un-recovered FAC which was allowed by the Commission to be charged to the three Licensees on a monthly basis in FY 2007-08;	FAC charged only to retail consumers with a cap of 33 paise per unit





Standby Charges: Rs 396 Crore p.a. payable to TPC to MSEDCL for the year with reimbursement of Rs 91 Crore p.a. by REL;	Standby Charges: payable by each Distribution Licensee according to the proportion specified by the Hon'ble Commission; For TPC-D, the amount is Rs 71.9 Crore for the year
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TPC submitted that considering the above situation for H1 and H2 period of FY 2006-07, it has not submitted the segregated revenue of TPC across the different businesses for H1 and hence for FY 2006-07. Accordingly, TPC submitted the performance for FY 2006-07 and the resultant gap/surplus, on an integrated basis.

The Commission has undertaken the truing up of performance parameters and expenses of TPC-G for FY 2006-07 including sharing of gains and losses in its Order dated April 2, 2008 on TPC-G's APR Petition for FY 2007-08. Similarly, the Commission has carried out the truing up of performance parameters and expenses of TPC-T for FY 2006-07 including sharing of gains and losses in its Order dated May 26, 2008 on TPC-T's APR Petition for FY 2007-08. As discussed above, the Commission has undertaken the truing up of certain expenses of TPC-D for FY 2006-07.

The Commission in this section has discussed the truing up of following elements of expenses and revenues on consolidated basis for TPC for FY 2006-07:

- Power Purchase Expenses
- Revenue
- Income Tax including impact of Income Tax Refund

### **3.10 POWER PURCHASE COSTS FOR FY 2006-07**

TPC-D submitted that the Commission has introduced the concept of a unified Intra State Transmission System in the State, which has been made effective since October 1, 2006. In addition, 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 the Tariff Order dated October 3, 2006.

TPC-D submitted that for the first six-months of FY 2006-07, TPC was operating as an integrated utility and providing power for meeting the requirements of all the three Distribution Licensees through generation from generating plants of TPC and through power purchase from MSEDCL and other sources. In the second half of FY 2006-07 TPC-G has been selling power to all the Distribution Licensees including TPC-D in



the proportion specified by the Commission in the Tariff order dated October 3, 2006. In addition, TPC-D purchased the balance requirement of the Mumbai Distribution Licensees, i.e. BEST, REL and TPC-D from MSEDCL and other sources (Based on authorization by BEST and REL to purchase power on their behalf upto 31st March 2007).

The Commission validated the actual power purchase cost of Distribution Licensees from generating stations of TPC for FY 2006-07 as well as power supplied by TPC from other sources to Distribution Licensees with the details of revenue break-up submitted by TPC and observed that TPC has shown a different value as revenue from Distribution Licensees during FY 2006-07. In order to reconcile the power purchase quantum and cost amongst the Mumbai Distribution Licensees for FY 2006-07, the Commission convened a common meeting between representatives of the three distribution licensees of Mumbai and Maharashtra State Load Despatch Centre on April 30, 2008. During the meeting it was confirmed by TPC, REL-D and BEST that they have not considered the impact of the SLDC's final energy balance statement for FY 2006-07 dated September 13, 2007 in their respective workings. In the said meeting, it was agreed by all the three distribution licensees that the truing up of power purchase quantum and cost and revenue towards bilateral sale by Distribution Licensees and revenue to TPC for FY 2006-07 should be considered based on SLDC's final energy balance statement dated September 13, 2007. Subsequently, all the three distribution licensees submitted the jointly reconciled statements for power purchase quantum and cost for FY 2006-07 considering the impact of SLDC's final energy balance statement.

TPC, in its Petition, has shown power purchase costs for purchase of power from external sources, Renewable Energy Sources and power purchase by TPC-D from TPC-G during second half of FY 2006-07. Further, TPC while undertaking the truing up on consolidated basis has shown revenue received by TPC-G from TPC-D during second half of FY 2006-07. As the Commission is carrying out the overall truing up of TPC for FY 2006-07 on consolidated basis, considering revenue for sale of power from TPC-G to TPC-D and again considering the same as power purchase cost for TPC-D will offset each other and accordingly will have no impact on truing up for TPC as a whole. Therefore, the Commission has only considered the power purchase cost for purchase of power by TPC from external sources and Renewable Energy Sources as part of consolidated truing up.



### **3.10.1 Power Purchase from other Sources**

Based on revised details submitted by TPC based on SLDC's final energy settlement for FY 2006-07, the Commission has considered the revised power purchase costs for purchase of energy from other sources during FY 2006-07 for truing up purposes. The summary of power purchase by TPC from other sources is given in the following Table:

***Table: Summary of Power Purchase Expenses from Other sources***

Source	Quantum (MU)	Total Cost (Rs Crore)
Purchase from other sources	849.62	536.10

### **3.10.2 RPS Obligation**

TPC-D, in its Petition, submitted that it has procured 30.52 MU from renewable sources during FY 2006-07. The Commission, in its Order in the matter of long term development of renewable energy sources and associated regulatory (RPS) framework dated August 16, 2006, while stipulating the enforcement of the RPS framework vide Para 3.1.9 stipulated as follows:

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

For truing up purposes, the Commission for FY 2006-07 has considered purchase of 30.52 MU from renewable sources at purchase cost of Rs 10.30 Crore.



### **3.10.3 Transmission and Wheeling Charges**

TPC-D submitted that prior to the Tariff Order dated October 3, 2006, the wheeling charges were payable to MSEB/MSEDCL for using their network. Further, after the Tariff Order dated October 3, 2007, these charges were not payable after the concept of “Intra State Transmission Network” was evolved for Maharashtra by the Commission. Accordingly, during second half of 2006-07, TPC-D paid its share in the Transmission ARR of the whole State and not separately to MSEB/MSEDCL. The charges paid towards wheeling in the first half (H1) and transmission charges in the second half (H2) in FY 2006-07 are as follows:

**Table: Summary of TPC submission for Transmission charges payable during FY 2006-07 (Rs Crore)**

<b>Particulars</b>	<b>H1</b>	<b>H2</b>
Wheeling charges payable to MSEB/MSEDCL	10.43	
Transmission charges payable to the Transmission pool of Maharashtra State		30.27

### **3.10.4 Standby Charges**

As regards standby charges being paid to MSEDCL, TPC-D submitted that it has considered an amount Rs 198 Crore (i.e., 50% of Rs 396 Crore for H1 period of FY 2006-07) based on earlier mechanism, and Rs 35.95 Crore for H2 period of FY 2006-07 based on the Tariff Order dated October 3, 2006.

The Commission, in its Order on ARR and Tariff Petition for FY 2006-07, considered the standby charge of Rs 71.9 Crore payable by TPC-D to MSEDCL in proportion to the average non-coincident peak demand of the Distribution licensees in Mumbai system during FY 2005-06. The actual standby charge included by TPC-D in its Petition for FY 2006-07 is Rs 233.95 Crore including Rs 198 Crore for first half of the year and Rs 35.45 Crore for the second half of FY 2006-07 as the Order was made effective from October 1, 2006. The Commission while truing up the consolidated ARR of TPC for FY 2006-07 has considered the actual standby charges paid by TPC.

The Commission has also considered the standby charges of Rs 45.5 Crore as part of revenue received by TPC in the first half of FY 2006-07 from REL-D as the revised standby sharing mechanism was made effective from October 1, 2006.



### 3.10.5 Summary of Power Purchase Costs

The summary of power purchase quantum and costs including standby charges and transmission tariff for FY 2006-07 as approved by the Commission is given in the following Table:

**Table: Summary of Approved Power Purchase Quantum and Costs for FY 2006-07**

Particulars	Tariff Order			Allowed After Truing up	
	Quantum	Total Cost (Rs Crore)	(Rs)	Quantum	Total Cost (Rs Crore)
Purchase from Other sources	305		134.4	849.62	536.10
Purchase from Renewable sources	77		25.4	30.52	10.30
Sub-Total	382		159.8	880.14	546.40
Standby Charges			71.9		233.95
Transmission Charges			60.55		40.70
Total	382		292.25	880.14	821.05

### 3.11 REVENUES FOR FY 2006-07

TPC-D, in its Petition has submitted that the revenues for FY 2006-07 have been determined on the following principles:

For H1 period of FY 2006-07 based on

- Retail sale and retail tariff as applicable to TPC's retail consumers, REL and BEST before the Tariff Order dated October 3, 2006, including the FAC billed, subject to the cap imposed by the Commission.
- Sale to MSEDCL at agreed rates;

For H2 period of FY 2006-07 based on the tariff approved under the Tariff Order dated October 3, 2006

#### TPC-G Revenues

- Annual Fixed Charges of TPC-G and Energy Costs based on revised prices and revised generation payable by all three Distribution Licensees as per the proportion and rate specified by the Commission in the Tariff Order dated October 3, 2006;
- Sale to MSEDCL at agreed rates;

#### TPC-T Revenues

- Annual Transmission Charges payable from the State Transmission Pool



TPC-D Revenues

- Revenue from retail consumers based on tariffs, including the FAC billed, as limited by the cap imposed by the Commission;
- Reimbursement of power purchase costs by BEST and REL for the portion of power purchased by them through TPC-D;

Based on the above mentioned methodology for H1 and H2 period of FY 2006-07, TPC submitted the revenues for FY 2006-07 as Rs 4,289 Crore as shown in the Table below:

**Table: Summary of Revenue for FY 2006-07 as submitted by TPC**

Particulars	TPC		
	H1	H2	Total
<b>Revenue at Existing Tariffs</b>			
<b>I. External Sources</b>			
<b>A. Revenue from BEST</b>			
-For H1	611		611
-For Power Purchase from TPC-G		537	537
-For Power Purchase from TPC-G (incentive)			
-For External Power Purchase		138	138
<b>B. Revenue from REL</b>			
-for H1	585		585
-For Power Purchase from TPC-G		580	580
-For Power Purchase from TPC-G (incentive)			
-For External Power Purchase		73	73
<b>C. Revenue from MSEDCL</b>	81	66	147
<b>D. Revenue from Retail Consumers of TPC</b>	503	494	997
<b>E. Adj. to Revenue from TPC Consumers</b>			
i) FAC Short Recovery ii) 15 Days Provisioning iii) Other Adj.		205	205
<b>F. Reimbursement of Transmission ARR</b>		84	84
<b>G. Revenue from Wheeling</b>	14		14
<b>Total Revenue from External Sources</b>	<b>1,793</b>	<b>2,178</b>	<b>3,971</b>
<b>II. Internal Sources</b>			
F. Revenue from TPC-D			
-For Power Purchase from TPC-G		318	318
<b>Total Revenue (I + II)</b>			<b>4,289</b>

The Commission has accepted the methodology adopted by TPC for considering the revenue for FY 2006-07 on consolidated basis for TPC as whole i.e., TPC-G, TPC-T and TPC-D. The Commission has analysed and validated the actual revenue as reported by TPC under various heads for FY 2006-07 for H1 and H2 of FY 2006-07, which has been discussed below:



Revenue from BEST & REL for sale of power during H1 & H2 of FY 2006-07:

As discussed in the truing up of power purchase expenses for FY 2006-07, the Commission has validated the actual power purchase cost of Distribution Licensees from generating stations of TPC for FY 2006-07 with the details of revenue break-up submitted by TPC and observed that TPC has shown a different value as revenue from REL during FY 2006-07. The Commission has considered the revised reconciled statement for power purchase cost and revenue for FY 2006-07 for truing up purposes. Accordingly, the Commission has considered the total revenue from BEST and REL for sale of power during FY 2006-07 as Rs. 1346.34 Crore and Rs. 1292.02 Crore, respectively.

Revenue from MSEDCL for sale of power during H1 & H2 of FY 2006-07:

As discussed in the above paragraph, the Commission has considered the jointly reconciled statements for power purchase quantum and cost for FY 2006-07 considering the impact of the SLDC's final energy balance statement for truing up purposes for FY 2006-07. Accordingly, the Commission has considered the revenue of Rs 95.35 Crore from MSEDCL during FY 2006-07.

Revenue from Retail consumers for sale of power during H1 & H2 of FY 2006-07:

The Commission has considered the actual revenue at Rs 997 Crore as submitted by TPC for FY 2006-07 towards the revenue for sale of power to retail consumers.

Adjustment to Revenue from TPC Consumers during H1 & H2 of FY 2006-07:

The Commission directed TPC to submit the detailed break up of adjustment of revenue to the extent of Rs 205 Crore and the details submitted by TPC are given below:

**Table: Adjustment of Revenue for FY 2006-07 as submitted by TPC**

Description	Amount (Rs Crore)
Net Provision	(3.43)
Net Provision for Cash Discount	(0.09)
Cash Discount	(22.55)
Excess Short Recovery of FAC	264.66
Others	0.21
Net Provision (TOSE)	(0.09)
Revenue Reversal	(0.05)



Adjustment in Revenue towards transmission loss recovery from BEST and REL (Adjustment made in revenue as well as power purchase cost)	(33.56)
Total	205.12

As regards excess short recovery of FAC, though the amount has not been recovered by TPC, it is shown as revenue in FY 2006-07 on matching concept, i.e., the revenue is booked in accounts in the year in which the costs are booked. The Commission has considered the amount of Rs 264.66 Crore as revenue for FY 2006-07 as proposed by TPC.

However, the Commission in its Order dated April 2, 2007 on TPC-G's MYT Petition allowed provisional truing up towards un-recovered FAC of Rs 308 Crore alongwith carrying cost. The Commission in the said Order allowed recovery of Rs 327.2 Crore of unrecovered FAC alongwith carrying cost as a separate charge during FY 2007-08 to be billed in 12 equal monthly instalments as follows:

	Amount (Rs Crore)
BEST	123.7
REL	129.6
TPC-D	72.5
Outside License	1.4
<b>Total</b>	<b>327.2</b>

As the actual under-recovery in FAC during FY 2006-07 is to the extent of Rs 264.66 Crore, TPC's entitlement for recovery of this amount alongwith carrying cost works out to Rs 280.54 as against amount of Rs 327.2 Crore allowed by the Commission, **Thus, the Commission will consider the excess recovery of Rs 45.65 Crore while carrying out the final truing up of TPC-G for FY 2007-08.**

As regards adjustment in revenue towards transmission loss recovery from BEST and REL and corresponding adjustment in power purchase cost, the Commission has not considered the same as the Commission has considered the power purchase cost of TPC for the second half of FY 2006-07 based on SLDC's final energy balancing settlement.

Accordingly, the adjustment to revenue for FY 2006-07 considered by the Commission works out to Rs 238.66 Crore.





**Reimbursement of Transmission ARR:**

The Commission considered the reimbursement of annual transmission charges payable from the State transmission pool for the second half of FY 2006-07 and has considered the amount of Rs 84 Crore as revenue to TPC.

**Revenue from Wheeling:**

The Commission has considered the amount of Rs 14 Crore towards the revenue from wheeling as projected by TPC for truing up purposes for FY 2006-07.

**Revenue from TPC-D for power purchase from TPC-G:**

TPC has submitted that it has considered the revenue of Rs 318 Crore towards the power purchase from TPC-G for FY 2006-07. As discussed earlier, as the Commission is carrying out the truing up of TPC as a whole on consolidated basis, i.e., for TPC-G, TPC-T and TPC-D for FY 2006-07, thus considering revenue for sale of power by TPC-G to TPC-D and again considering the same as power purchase cost for TPC-D will offset each other and accordingly will have no impact on truing up for TPC as a whole.

The summary of the truing of the revenue as submitted by TPC in its Petition and considered by the Commission for FY 2006-07 is shown in the Table below:

**Table: Summary of Truing up of Revenue for FY 2006-07**

Particulars	TPC			Allowed After Truing up		
	H1	H2	Total	H1	H2	Total
<b>Revenue at Existing Tariffs</b>						
<b>I. External Sources</b>						
<b>A. Revenue from BEST</b>						
-For H1	611		611	610.57		610.57
-For Power Purchase from TPC-G		537	537		555.64	555.64
-For External Power Purchase		138	138		180.13	180.13
<b>B. Revenue from REL</b>						
-for H1	585		585	585.36		585.36
-For Power Purchase from TPC-G		580	580		600.48	600.48
-For External Power Purchase		73	73		106.18	106.18
<b>C. Revenue from MSEDCL</b>	81	66	147	80.71	14.64	95.35
<b>D. Revenue from Retail Consumers of TPC</b>	503	494	997	503.00	494.00	997.00
<b>E. Adj. to Revenue from TPC Consumers</b>						0.00
i) FAC Short Recovery ii) 15 Days Provisioning iii) Other Adj.		205	205		205.00	238.66
<b>F. Reimbursement of Transmission ARR</b>		84	84		84.00	84.00



Particulars	TPC			Allowed After Truing up		
	H1	H2	Total	H1	H2	Total
<b>G. Revenue from Wheeling</b>	14		14	14.00		14.00
Total Revenue from External Sources	1,794	2,177	3,971	1793.64	2240.08	4067.37
II. Internal Sources						
<b>F. Revenue from TPC-D</b>						
-For Power Purchase from TPC-G		318	318		-	-
<b>Total Revenue (I + II)</b>		<b>2,495</b>	<b>4,289</b>			<b>4067.37</b>

### 3.12 INCOME TAX FOR FY 2006-07

TPC, in its Petition, submitted that the Income Tax payable by TPC in FY 2006-07 has been worked on the basis of the total revenues earned by TPC and after considering the

- (i) disallowances under various section under Income Tax Act 1961,
- (ii) the allowable expenditures under Section 32, Section 43 A, Section 43 B
- (iii) Benefit under Section 80 IA
- (iv) Normative Interest on Long Term Debt and interest on working capital.

Accordingly, TPC computed the income tax for FY 2006-07 as Rs. 98 Crore. The Commission for FY 2006-07 has considered the tax of Rs 98 Crore as submitted by TPC.

#### 3.12.1 Reversal of Tax Provisions Relating to Previous Years

TPC submitted that the Commission in the past pointed out that TPC must make efforts to reduce the expenses incurred, including Income-tax and other statutory expenses. TPC submitted that it has been taking active steps including towards optimisation of the tax provisions. TPC submitted that during FY 2006-07 it has reversed tax provision aggregating to Rs 182 Crore arising out of favorable Tribunal and Assessment Orders. TPC submitted following reasons for this reversal:

##### Section 80 IA Benefits

TPC submitted that as the operations of the Licensed Area are integrated, it is not possible to relate the revenues earned to the various generating units. In the absence of determination of revenue allocable to various generating units it was not possible to work out the profits of the units eligible for deductions under section 80IA of the Income Tax Act, 1961. TPC submitted that it had been filing the Return of Income till Assessment year 2001-02 without claiming the deduction under section 80IA.



However, thereafter, TPC attempted to compute the revenue attributable to the generating units using the Capital Base of each of the generating units and applying the principles laid down in the Electricity (Supply) Act, 1948. Accordingly, claim under section 80IA was worked for the units in the Licensed Area i.e., Trombay Unit 7 (Combined Cycle Power Plant) and Bhira Pumped Storage Unit by applying the aforesaid method and a cumulative deduction of Rs 104 Crore and Rs 55 Crore were claimed for Trombay Unit 7 and Bhira Pumped Storage Unit respectively from FY 2001-02 to FY 2005-06. TPC submitted that statutory auditors vetted these computations and the same was submitted to the tax authorities along with the Return of Income in the respective years.

TPC submitted that with the assessment order for FY 2004-05 received during the year, TPC's claim relating to Section 80IA has been upheld for three years now (AY 2002-03 to AY 2004-05) and hence, the method followed for computing the Capital Base for claiming the deduction is deemed to have been accepted.

#### Other Favourable Decisions

Further, TPC submitted that Tribunal Orders on the issue uphold the deduction claimed by TPC in respect of expenses relating to certain feasibility studies, maintenance of gardens, etc. Accordingly, TPC submitted that it decided to reverse the provisions relating to Sec 80 IA and items covered in the Tribunal Orders, from the books aggregating to Rs 182 Crore. Accordingly, TPC has reversed during FY 2006-07, tax provisions aggregating Rs 182 Crore arising out of favourable Assessments/Tribunal Orders pertaining to Mumbai Licensed Area relating to earlier years. TPC submitted that such Income Tax benefits have been proposed to be passed on to the consumers through this Petition. While computing the amount of benefit that is passed on to the consumers, TPC has considered the following principles:

#### Income Tax allowed by the Commission during the various years-

TPC submitted that if the income tax for any year after including this reversal is less than the amount allowed by the Commission, no benefit has been passed on as the same has already been passed on to the consumers in terms of lower tax.

#### Provisions of Sixth Schedule of the Electricity Act 2003 and treatment of surplus under the Sixth Schedule:

TPC submitted that wherever the tax amount approved by the Commission is higher than the applicable tax, the difference has been treated as excess and dealt with as per the provisions of Sixth Schedule to the Electricity (Supply) Act, 1948, which was



applicable during the years to which the reversal relates. Based on the above, TPC submitted the following workings for the amount to be passed on to the consumers and accordingly considered an amount of Rs 26 Crore for passing on to the consumers after transferring an equal amount to Tariffs and Dividend Control Reserve:

**Table: Summary of Reversal of Tax Provisions and Sharing of Benefits with Consumers (Rs Crore)**

S No.	Particulars	Total	Upto FY01	FY02	FY03	FY04	FY05	FY06
(i)	Tax Reversals pertaining to the years FY 84 onwards	182	13	17	49	42	31	30
(ii)	Tax claimed by TPC in their Filing based on actuals			151	236	224	138	160
(iii)= (ii)-(i)	Tax that would have been claimed had the adjustments taken place in respective years			134	187	182	107	130
(iv)	Tax Approved by the Hon'ble Commission in the Tariff Order for TPC			151	236	128	105	110
(v)	The amount by which CP would have exceeded RR owing to tax reversal = If (iv) is greater than (iii) then (iv)-(iii) else Nil		13	17	49	-	-	-
(vi)= 1/3 of (v)	Transfer to T&D Reserve out of the excess through application of the provisions of the Sixth Schedule of the ESA 1948 Act		4	6	16	-	-	-
(vii) = 1/3 of (v)	Share of the consumers relating to the amount in (v) above through application of provisions of Sixth Schedule of the ESA 1948 Act	26	4	6	16	-	-	-

The Commission is of the view that for FY 2000-01 to FY 2002-03, the Commission has already carried out the truing up of Clear Profit vs. Reasonable Return for TPC based on Sixth Schedule provisions in its earlier Orders. Further, the Commission in its previous Orders has adjusted the amount of reserves in its Order on ARR and Tariff Petition of FY FY 2004-05 and FY 2005-06 as well as FY 2006-07. Therefore, the Commission is of the view that at this stage, it may not be appropriate to transfer any amount to reserves for the period FY 2000-01 to FY 2002-03, particularly when the adjustment of reserves has already been carried out in previous Tariff Orders. Therefore, the Commission for these three years, viz., FY 2000-01 to FY 2002-03 has considered the amount of Rs 52 Crore of tax refund to be passed on to consumers, as compared to Rs. 26 crore proposed by TPC.

Regarding treatment of tax reversal for the period FY 2003-04 to FY 2005-06, as discussed in Section 1 of the Order, the Commission will again carry out the truing up for FY 2004-05 and FY 2005-06 and final truing up for FY 2006-07 considering the



ATE Judgement. The Commission will deal with the issue of treatment of tax reversal for FY 2003-04 to FY 2005-06 while carrying out the truing up in accordance with ATE Judgement, and the submissions of TPC vis-à-vis the impact on each business of TPC.

### **3.13 STATUTORY APPROPRIATIONS FOR TPC-T**

TPC, in its Petition, submitted that the Statutory Appropriation towards the Contingency Reserve for FY 2006-07 was considered as nil at the time of filing of ARR for FY 2006-07 as the limit specified in the Tariff Regulations was reached.

TPC submitted that the Commission has however, adjusted the un-recovered fuel expenditure of FY 2005-06 against this reserves held by TPC in its Tariff Order dated October 3, 2006. TPC further submitted that subsequent to the decision of the Commission, the Statutory Appropriation has been provided at Rs 5 Crore for TPC-T for FY 2006-07. However, in the Annual Performance Review filing of TPC-T filed on November 30, 2007, the statutory appropriations have been inadvertently mentioned as Rs 1 Crore. TPC requested the Commission to condone the error and consider the statutory appropriations in TPC-T at Rs 5 Crore.

The Commission has considered the statutory appropriation of Rs 5 Crore for TPC-T during FY 2006-07 as part of truing up of consolidated ARR of TPC. However, since the Order for TPC-T has already been issued, with a provisioning of Rs. 1 crore, the difference will have to be considered at the time of APR for FY 2008-09.

#### **3.13.1 Revenue Gap/surplus for FY 2006-07 and Efficiency gain/Losses**

TPC submitted that based on its submission for the total expenditure incurred by TPC as a whole in FY 2006-07 as discussed in the preceding sections, the total expenditure works out to Rs 4253 Crore for FY 2006-07. The summary of the aggregate revenue requirement for TPC as a whole i.e., TPC-G, TPC-T & TPC-D as submitted by TPC is shown in the Table below:



**Table: Summary of Aggregate Revenue Requirement for FY 2006-07(Rs Crore)**

<b>Expenses</b>	<b>TPC-G</b>	<b>TPC-T</b>	<b>TPC-D</b>	<b>Total</b>
Fuel Cost on Approved Norms	2,400.00			2,400.00
<b>Total Power Purchase</b>			<b>1,002.07</b>	<b>1,002.07</b>
Power Purchase Expenses (TPC -G)			317.66	317.66
Power Purchase Expenses (RPO)			10.30	10.30
Power Purchase Expenses (Other Sources)			433.66	433.66
Standby Charges			233.95	233.95
Incentive Payable			6.50	6.50
Transmission Charges Payable			40.70	40.70
<b>Operation &amp; Maintenance Expenses</b>	<b>260.43</b>	<b>85.98</b>	<b>28.17</b>	<b>374.58</b>
Depreciation, including advance against depreciation	62.12	29.15	13.50	104.77
<b>Interest &amp; Finance Charges</b>	<b>99.05</b>	<b>7.53</b>	<b>17.27</b>	<b>123.85</b>
Interest on Long-term Loan Capital	19.72	2.80	6.44	28.96
Interest on Working Capital	79.05	4.44	7.96	91.45
Other Finance Charges	0.28	0.29	2.87	3.44
Bad Debts Written off			-17.41	-17.41
Statutory Appropriations		5.00	1.67	6.67
Income Tax	64.39	24.00	8.46	96.85
Adj. for Prior period Income Tax Refund				
Return on Equity Capital	151.13	56.34	19.71	227.18
<b>Aggregate Revenue Requirement</b>	<b>3,037</b>	<b>208</b>	<b>1,114</b>	<b>4,359</b>
Less: Non Tariff Income	28.00	16.66	16.41	61.07
Less: Other Income				
Less: Standby charges payable by REL			45.50	45.50
<b>Net Aggregate Revenue Requirement</b>	<b>3,009.12</b>	<b>191.34</b>	<b>1,052.23</b>	<b>4,252.69</b>

*Note: Although the income tax has been computed for TPC as a whole, it has been shown under the three different business heads for presentation purpose only by allocating in the Ratio of the RoE of the three businesses*

Further, TPC after considering the sharing of efficiency gains and losses estimated the total entitlement of TPC for FY 2006-07 as Rs 4282 Crore as against the revenue of Rs 4289 Crore as submitted by TPC leaving a surplus of Rs 7 Crore.

Based on TPC-G's entitlement approved in TPC-G APR Order, TPC-T's entitlement approved in TPC-T APR Order, expenses approved for TPC-D in this Order and truing up of certain elements of expenses and revenue on consolidated basis as discussed above, the summary of TPC's entitlement of ARR, Revenue and Revenue surplus on consolidated basis for FY 2006-07 is given in the following Table:



**Table: Summary of ARR, Revenue and Revenue Gap/(Surplus) (Rs Crore)**

Particulars	TPC Submission				Entitlement after impact of gains and losses	Approved after Truing up			
	TPC-G	TPC-T	TPC-D	Total		TPC-G	TPC-T	TPC-D	Total
Fuel Cost on Approved Norms	2,400.00			2,400.00	2,435.00	2,429.78			2,429.78
<b>Total Power Purchase</b>			<b>1,002.07</b>	<b>1,002.07</b>	<b>1,002.07</b>			<b>786.85</b>	<b>786.85</b>
Power Purchase Expenses (TPC -G)			317.66	317.66	317.66				
Power Purchase Expenses (RPO)			10.30	10.30	10.30			10.30	10.30
Power Purchase Expenses (Other Sources)			433.66	433.66	433.66			536.10	536.10
Standby Charges			233.95	233.95	233.95			233.95	233.95
Incentive Payable			6.50	6.50	6.50			6.50	6.50
Transmission Charges Payable			40.70	40.70	40.70			40.70	40.70
<b>Operation &amp; Maintenance Expenses</b>	<b>260.43</b>	<b>85.98</b>	<b>28.17</b>	<b>374.58</b>	<b>384.00</b>	<b>254.38</b>	<b>81.87</b>	<b>30.76</b>	<b>367.01</b>
Depreciation, including advance against depreciation	62.12	29.15	13.50	104.77	104.77	61.71	28.96	13.50	104.17
<b>Interest &amp; Finance Charges</b>	<b>99.05</b>	<b>7.53</b>	<b>17.27</b>	<b>123.85</b>	<b>121.41</b>	<b>68.45</b>	<b>5.69</b>	<b>14.60</b>	<b>88.74</b>
Interest on Long-term Loan Capital	19.72	2.80	6.44	28.96	28.96	19.72	2.81	6.44	28.97
Interest on Working Capital	79.05	4.44	7.96	91.45	91.45	48.45	2.59	7.88	58.92
Other Finance Charges	0.28	0.29	2.87	3.44	1.00	0.28	0.29	0.28	0.85
Bad Debts Written off			-17.41	-17.41	-4.00			-17.41	-17.41
Statutory Appropriations		5.00	1.67	6.67	6.67		5.00	1.80	6.80
Income Tax	64.39	24.00	8.46	96.85	96.85	64.39	24.00	8.46	96.85
Adj. for Prior period Income Tax Refund					-26.00				-52.00
Return on Equity Capital	151.13	56.34	19.71	227.18	227.18	150.27	56.34	19.71	226.32
<b>Aggregate Revenue Requirement</b>	<b>3,037</b>	<b>208</b>	<b>1,114</b>	<b>4,359</b>	<b>4,389</b>	<b>3,029</b>	<b>202</b>	<b>899</b>	<b>4,078</b>
Less: Non Tariff Income	28.00	16.66	16.41	61.07	61.07	28.37	16.66	16.41	61.44
Less: Other Income							13.57		13.57
Less: Standby charges payable by REL			45.50	45.50	45.50			45.50	45.50
<b>Net Aggregate Revenue Requirement</b>	<b>3,009.12</b>	<b>191.34</b>	<b>1,052.23</b>	<b>4,252.69</b>	<b>4,282.08</b>	<b>3,000.61</b>	<b>171.63</b>	<b>837.07</b>	<b>3,957.31</b>
Total Revenue				4,289	4,289				4067.37
<b>Revenue Gap/(Surplus)</b>					<b>(6.92)</b>				<b>(110.07)</b>

### 3.13.2 Sharing of Surplus

TPC submitted that considering that this surplus has resulted from a mix of measures taken over time, it proposes to share this surplus with the consumers of Mumbai. TPC allocated the surplus of Rs 6.92 for FY 2006-07 to the Generation and Distribution function in proportion of the Annual Fixed Costs. TPC shared the total surplus allocated to TPC-G between the three distribution licensees of Mumbai licensed area in the proportion of generation capacity allocation in FY 2006-07. Accordingly, TPC has projected a total surplus of Rs 2.2 Crore for TPC-D.

TPC further submitted that the total surplus of Rs 2.2 Crore as worked out for TPC-D along with the interest @ 6% p.a for one year would be used to reduce the Annual Revenue Requirement of TPC-D for FY 2008-09. Accordingly, TPC submitted that the total surplus available for TPC-D in FY 2008-09 as Rs. 3 Crore.

The Commission has accepted TPC's methodology for sharing of surplus for FY 2006-07. Accordingly, the approved surplus for FY 2006-07 has been allocated to the Generation and Distribution function of TPC-D in proportion of the Annual Fixed Costs as approved in this Order. The summary of allocation of surplus of FY 2006-07



between TPC-G and TPC-D as projected by TPC and considered by the Commission is shown in the Table below:

**Table: Sharing of Surplus between TPC-G & TPC-D for FY 2006-07(Rs Crore)**

	TPC	Approved
TPC-G	6.10	97.73
TPC-D	0.82	12.3
<b>Total</b>	<b>6.92</b>	<b>110.07</b>

Further, the Commission has shared the total surplus allocated to TPC-G between the three distribution licensees of Mumbai licensed area in the proportion of generation capacity allocation in FY 2006-07. The summary of sharing of total surplus for FY 2006-07 between the three distribution licensees is shown in the Table below:

**Table: Sharing of Surplus between three distribution licensees for FY 2006-07 (Rs Crore)**

	TPC				Approved after truing up			
	BEST	REL	TPC-D	Total	BEST	REL	TPC-D	Total
TPC-G Surplus	2.28	2.47	1.35	6.10	36.57	39.52	21.64	97.73
TPC-D Surplus			0.82	0.82			12.3	12.3
<b>Total Surplus</b>	<b>2.28</b>	<b>2.47</b>	<b>2.17</b>	<b>6.92</b>	<b>36.57</b>	<b>39.52</b>	<b>33.98</b>	<b>110.07</b>

The Commission has considered the carrying cost of 6% for one year on this surplus amount to be passed on to Distribution Licensees and consumers by TPC. The total amount of surplus alongwith carrying cost works out as follows:

- BEST : Rs 38.76 Crore
- REL : Rs 41.89 Crore
- TPC-D: Rs 36.02 Crore

The surplus alongwith carrying cost to be passed on to BEST and REL should be adjusted from TPC-G monthly bill to be raised to BEST and REL immediately after issuance of this Order. For TPC-D, the Commission has adjusted the surplus of Rs 36.02 Crore from the ARR of TPC-D for FY 2008-09.





### 3.14 Sharing of Gains & Losses in FY 2006-07

TPC submitted the actual expenditure under various heads of expenditure and the reasons for variation between the approved expenditure and the actual expenditure. Further, TPC categorised these expenditures as controllable and uncontrollable and computed the gains and losses for the controllable expenditure and shared the same with the distribution licensees in accordance with the provisions of Tariff Regulations. The relevant provisions under the MERC Tariff Regulations stipulating sharing of gains/losses due to controllable factors are reproduced below:

*“17.6.2 Some illustrative variations or expected variations in the performance of the applicant which may be attributed by the Commission to controllable factors include, but are not limited to, the following:*

- (a) Variations in capital expenditure on account of time and/ or cost overruns/efficiencies in the implementation of a capital expenditure project not attributable to an approved change in scope of such project, change in statutory levies or force majeure events;*
- (b) Variations in technical and commercial losses, including bad debts;*
- (c) Variations in the number or mix of consumers or quantities of electricity supplied to consumers as specified in the first and second proviso to clause (b) of Regulation 17.6.1;*
- (d) Variations in working capital requirements;*
- (e) Failure to meet the standards specified in the Standards of Performance Regulations, except where exempted in accordance with those Regulations;*
- (f) Variations in labour productivity;*
- (g) Variations in any variable other than those stipulated by the Commission under Regulation 15.6 above, except where reviewed by the Commission under the second proviso to this Regulation 17.6.*

...

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

- (a) One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10;*
- (b) In case of a Licensee, one-third of the amount of such gain shall be retained in a special reserve for the purpose of absorbing the impact of any future losses on account of controllable factors under clause (b) of Regulation 19.2; and*



*(c) The balance amount of gain may be utilized at the discretion of the Generating Company or Licensee.*

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

*(a) One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be specified in the Order of the Commission under Regulation 17.10; and*

*(b) The balance amount of loss shall be absorbed by the Generating Company or Licensee.”*

However, as the Commission has not undertaken the sharing of gains and losses on account of variation in controllable parameters in this Orders, since it is difficult to assess the impact at this stage, and the same will undergo change once TPC submits the impact of the ATE Order.



## 4 PERFORMANCE REVIEW OF FY 2007-08 AND DETERMINATION OF REVENUE REQUIREMENT FOR FY 2008-09

### 4.1 PERFORMANCE PARAMETERS

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

*“The Commission may stipulate a trajectory, which may cover one or more control periods, for certain variables having regard to the reorganization, restructuring and development of the electricity industry in the State.*

*Provided that the variables for which a trajectory may be stipulated include, but are not limited to, generating station availability, station heat rate, transmission losses, distribution losses and collection efficiency.”*

The Commission, in its MYT Order for TPC-D, had considered the trajectory of system availability. Regulation 49.1 of the MERC (Terms and Conditions of Tariff) Regulations, 2005, stipulates,

*Target availability for full recovery of annual transmission charges*

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

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

#### 4.1.1 Distribution Loss

The Commission had 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.

In the APR Petition, TPC-D submitted that the consumers of TPC-D are connected to the system at various voltages, and about 80% of TPC-D's sales are to HT consumers, who are connected at voltage level of 22 kV and above. The distribution losses in TPC-D are therefore expected to be minimal. TPC added that it has recently (from 1st October 2007) provided meters for metering the actual consumption of TPC-D at T<math>\diamond</math>D interface and the determination of the Distribution loss is in progress. TPC



submitted that pending such determination, the distribution loss as approved by the Commission for FY 2007-08 has been considered for determining the Energy Requirement at T<>D interface of TPC-D.

The Commission fails to understand as to why it is taking so much time to determine the distribution losses in TPC-D's distribution system, based on the energy drawn at T<>D interface. It is only a question of taking the meter reading and validating the same with the metered sales to the consumers. In the absence of the necessary data from TPC-D, the Commission is constrained to consider the distribution loss as 2.93% for FY 2007-08 and FY 2008-09. **TPC-D is directed to submit the T<>D metered data and the computation of distribution losses for the six-month period from October 1, 2007 to March 31, 2008, within two weeks of issue of this Order, giving the monthly break-up.**

#### 4.2 CONTROL PERIOD

The first Control Period for Multi-Year Tariff (MYT) has been stipulated as April 1, 2007 to March 31, 2010 in the MYT Order.

#### 4.3 PROVISIONAL TRUING-UP FOR FY 2007-08

TPC-D, in its APR Petition for FY 2007-08 and revenue requirement Petition for FY 2008-09, submitted the performance for FY 2007-08 based on actual performance for the first half of the year, i.e., April to September 2007, and estimated performance for the second half of the year, i.e., October 2007 to March 2008. TPC-D submitted the comparison of each element of expenditure and revenue with that approved by the Commission in its Order dated April 30, 2007 on TPC's Multi Year Tariff petition for its Distribution Business for the Control Period from FY 2007-08 to FY 2009-10.

The Commission will undertake the final truing up of the revenue requirement and Revenue for FY 2007-08 once the audited accounts of TPC for FY 2007-08 are available, i.e., during Annual Performance Review for the second year of the Control Period, viz., FY 2008-09. However, the Commission in this Order on APR for FY 2007-08 and determination of Tariff for FY 2008-09 has considered provisional truing up of certain elements of the revenue requirement in cases where the impact is very high, or there is a change in principles/methodology, and due to revision in capital expenditure/capitalisation figures. The revised estimate of performance of TPC-D during FY 2007-08 and FY 2008-09 as compared to the Commission's MYT Order for TPC-D is discussed in the following paragraphs.



The Commission clarifies that the final truing up and the computation of sharing of gains and losses due to controllable factors will be undertaken only after the audited expenses and revenue are available. Further, for computing sharing of efficiency gains/losses for FY 2007-08, the revised expenses approved for FY 2007-08 in this Order under the provisional truing up exercise will be considered as base expenses.

#### 4.4 SALES

TPC-D submitted that the sales for FY 2007-08 have been estimated on the basis of the actual sales in H1 of FY 2007-08 and projections for H2 of FY 2007-08. TPC-D submitted that the revised estimated sales for FY 2007-08 at 2585 MU are about 350 MU lesser than the sales of 2937 MU approved by the Commission in the MYT Order. The key reason for variation in the quantum projected and revised estimates for FY 2007-08 is the delay in drawal of load by HPCL for their new refining capacity. This capacity was expected to increase the sales (of about 50 MW) from May 2007 but the same has not materialised so far and therefore the impact of the same has not been included in the revised estimates. TPC added that this sales is now expected in Q1 of FY 2008-09. TPC-D submitted the estimated sales for FY 2008-09 as 2698 MU.

For FY 2007-08, the Commission obtained the details of category-wise sales for the 11-month period from April 2007 to January 2008 and pro-rated the same for the entire FY 2007-08, by considering the share of sales in March of the previous year, for each consumer category separately. As shown in the Table below, the actual sales in FY 2007-08 have been lower than that considered by the Commission in the MYT Order, as a result of which, the power purchase has also reduced to that extent, after considering the distribution losses on the sales.

For FY 2008-09, the Commission has considered the 5-year CAGR of sales for each category, by considering the period from FY 2001-02 to FY 2007-08. For categories like Railways and HT industrial, the Commission has considered the 5-year CAGR for projecting the sales, while for other categories, the three-year CAGR in sales was considered to project the sales, as it appears to be more representative of the immediate trend. The category-wise sales projected by TPC and approved by the Commission in this Order are given in the Table below:



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

Consumer Category & Consumption Slab	(FY 2006-07) (Actual)	(FY 2007-08) (Actual / Estimates)				FY 2008-09	
		MYT Order	TPC-D	Actual till Feb 08 - pro-rated for entire year	Approved	TPC-D	Approved
<b>Railways</b>	<b>801</b>	<b>820</b>	<b>822</b>	<b>819</b>	<b>822</b>	<b>821</b>	<b>842</b>
- 22/33 kV	525	538	536		536	533	546
- 100kV	276	282	286		286	287	296
						-	
<b>HT customers</b>	<b>1,018</b>	<b>1,255</b>	<b>1,076</b>	<b>1,073</b>	<b>1,073</b>	<b>1,193</b>	<b>1,296</b>
- Industries (HT-II)	403	295	398	476	476	365	621
- Commercial (HT-III)	189	370	231	268	268	221	338
- Public (HT- I)	257	263	263	330	330	260	337
- 22kV	55		55		69	56	70
- 100kV	202		208		261	204	267
- CPP (HT-I)	168	327	185			347	
						-	
<b>Textiles (HT-II)</b>	<b>192</b>	<b>159</b>	<b>114</b>	<b>97</b>	<b>97</b>	<b>85</b>	<b>85</b>
						-	
<b>LT 2 Part (LT-III)</b>	<b>312</b>	<b>438</b>	<b>381</b>	<b>456</b>	<b>456</b>	<b>463</b>	<b>586</b>
- Industries	49	59	69	125	125	101	149
- Commercial	263	379	312	330	330	362	436
						-	
<b>LT 1 Part (LT-II)</b>	<b>128</b>	<b>167</b>	<b>109</b>	<b>40</b>	<b>40</b>	<b>51</b>	<b>51</b>
- Industries	46	67	41	14	14	15	15
- Commercial	81	100	68	26	26	36	36
						-	
<b>Residential (LT-I)</b>	<b>72</b>	<b>97</b>	<b>83</b>	<b>75</b>	<b>75</b>	<b>85</b>	<b>82</b>
- S1 (0-100 units)	20		24		22	24	24
- S2 (100-300 units)	24		27		24	27	26
- S3 (> 300 / 300-500 Units)	19		9		8	9	9
- S4 (> 500 Units)	9		23		21	25	23
						-	
<b>TOTAL</b>	<b>2,522</b>	<b>2,936</b>	<b>2,585</b>	<b>2,560</b>	<b>2,563</b>	<b>2,698</b>	<b>2,942</b>

Thus, the total sales estimated by the Commission for FY 2007-08 and FY 2008-09 is 2563 MU and 2942 MU, as compared to TPC-D's estimate of 2585 MU and 2698 MU, respectively.

#### 4.5 DISTRIBUTION LOSSES AND ENERGY INPUT

As discussed earlier, TPC-D submitted that it had considered the distribution losses for FY 2007-08 and FY 2008-09 as 2.93%, for computing the energy input requirement, which has been accepted by the Commission in the absence of any data on the same. TPC-D assumed the existing approved transmission loss level of 4.85% for FY 2007-08 to estimate the gross requirement at the ex-bus level, which has been accepted by the Commission. The corresponding Energy Balance is given in the Table below:



**Table: Approved Energy Balance for FY 2007-08 and FY 2008-09**

Particulars	FY 2007-08		FY 2008-09	
	TPC-D APR Petition	Approved after provisional Truing up	TPC-D APR Petition	Approved
<b>Sales</b>	<b>2,585</b>	<b>2,563</b>	<b>2,698</b>	<b>2,942</b>
Distribution Loss	2.93%	2.93%	2.93%	2.93%
Energy Requirement at T<D interface	2,663	2,640	2,780	3,031
Transmission Loss	<b>4.85%</b>	<b>4.85%</b>	<b>4.85%</b>	<b>4.85%</b>
<b>Total Energy Requirement</b>	<b>2,799</b>	<b>2,774.99</b>	<b>2,921</b>	<b>3,185.38</b>

#### **4.6 ENERGY AVAILABILITY AND POWER PURCHASE COST DURING FY 2007-08 AND FY 2008-09**

##### **4.6.1 Power Purchase from TPC-G**

TPC-D, in its Petition, submitted that the energy requirement of TPC-D has been met as in the past, from TPC-G, renewable sources and power purchases from external sources.

TPC-D projected the power purchase for FY 2007-08 from generating stations of TPC-G considering the share as approved by the Commission in its Order dated April 2, 2007 on TPC-G's MYT Petition. The summary of power purchase quantum and costs as considered by TPC-D is shown in the Table below:

**Table: Summary of Power Purchase from TPC-G for FY 2007-08**

Particulars	Quantum (MU)	Cost (Rs Cr)
TPC-G: Existing	2204.49	822.21

As regards purchase from TPC-G for FY 2008-09, TPC-D submitted that the Commission, in its Order dated November 6, 2007 approved the Power Purchase Arrangement (PPA) between TPC-G and TPC-D with certain allocation from various units of TPC-G to TPC-D. TPC-D submitted that it has considered the allocation of generation from the various Units as per the approved PPA for the purpose of the estimation of power purchase from the existing generating stations and Unit-8. The



summary of the allocation as considered by TPC-D for projection purposes is shown in the Table below:

**Table: Summary of the Allocation from TPC-G Units for FY 2008-09**

<b>Units</b>	<b>Capacity (MW)</b>	<b>Share of TPC-D (MW)</b>	<b>% of Capacity</b>
Hydro	447	120	26.84%
Unit 4	150	40	26.84%
Unit 5	500	134	26.84%
Unit 6	500	134	26.84%
Unit 7	180	48	26.84%
<b>Total</b>	<b>1777</b>	<b>477</b>	<b>26.84%</b>
Unit 8	250	50	20.00%

Accordingly, TPC projected power purchase of 2739 MU from TPC-G and projected the purchase cost as Rs 1039 Crore for FY 2008-09.

For provisional truing up for FY 2007-08, the Commission has considered the power purchase quantum and cost from TPC-G as projected by TPC-D and hence, approves power purchase of 2204 MU at an estimated cost of Rs 822.21 Crore. However, the Commission observed that TPC-D has not considered the amount of Rs 72.5 Crore to be billed by TPC-G to TPC-D during FY 2007-08 towards unrecovered FAC for FY 2006-07 as approved by the Commission in its Order dated April 2, 2007 on TPC-G's MYT Petition. The Commission has considered this amount of Rs 72.5 Crore and hence approves the total power purchase cost of TPC-D from TPC-G during FY 2007-08 as Rs 894.71 Crore. The Commission will undertake the final truing up of power purchase from TPC-G for FY 2007-08 based on actual data for the entire year during the APR process for FY 2008-09.

The Commission issued its Order in Case No. 86 of 2006, Case No. 87 of 2006 and Case No. 30 of 2007 on November 6, 2007 in the matter of BEST's Petition for Approval of Revised Power Purchase Agreement between BEST and TPC; TPC's Petition seeking approval of Power Purchase Arrangement between TPC-G and TPC-D; and dispute raised by REL for adjudication under the provisions of Section 86(1)(f) of the Electricity Act, 2003. The Commission, in its Order, approved the PPA between BEST and TPC and the internal capacity allocation from the generation division of TPC to its own distribution division, with effect from April 1, 2008.

Subsequently, the Appellate Tribunal for Electricity passed its Judgment in the matter of Appeal No. 41 of 2007, Appeal No. 51 of 2007, Appeal No. 143 of 2007, Appeal No. 145 of 2007, Appeal No. 159 of 2007 and Appeal No. 14 of 2008, filed by the





Mumbai licensees, on May 6, 2008. The relevant extract of the said Judgment has been reproduced below:

*“103. We conclude from the aforementioned that the Commission has wide powers to regulate the quantity of energy that may be supplied by a generating company to a distribution licensee when both are under the jurisdiction of the same Commission.*

*104. It is not in dispute that the claims of REL have not been considered by the Commission while approving the PPA between the TPC(G) and BEST and arrangement between TPC(G) and TPC(D). It is also not in dispute that the approval of PPA and the arrangement has affected the allocation of power to REL. The interests of REL have been adversely affected by the Commission in violation of the principle of natural justice. The Commission ought to have considered the claim of REL for allocation of power while considering the approval of PPAs between TPC(G) and BEST and arrangement between TPC(G) and TPC(D).*

*105. In the circumstances, appeal No. 143 of 2007 is allowed and order dated November 06, 2007 of the MERC approving the PPA of TPC and BEST and arrangement between TPC and TPC(D) with reference to allocation of power to BEST and TPC(D) is set aside. The Commission is directed to consider the question of approval of PPA and the arrangement afresh after taking into consideration the claims of BEST, REL and TPC(D). While considering the case of the parties the Commission shall have regard to the fact that the consumers of respective areas have been bearing the Depreciation and Interest on Loan elements of the Fixed Cost of tariff and also consider all other submissions of the parties which are permissible in the law.*

*106. Since we have held that the Commission has wide powers to regulate the quantity of energy that may be supplied by a generating company to Distribution Licensees when both are under its jurisdiction, appeal No. 159 of 2007 and appeal No. 14 of 2008 are liable to be dismissed. Accordingly, appeal No. 159 of 2007 and appeal No. 14 of 2008 are hereby dismissed.”*

Thus, the ATE set aside the Commission’s Order approving the PPA between TPC-G and BEST and the Power Purchase Arrangement between TPC-G and TPC-D. However, subsequent to the ATE Judgment on the said issue, TPC filed an appeal



with the Hon'ble Supreme Court against the ATE Judgment. The Hon'ble Supreme Court in its Interim Judgment dated May 14, 2008 has stayed the ATE Judgment in the matter of Appeal No. 41 of 2007, Appeal No. 51 of 2007, Appeal No. 143 of 2007, Appeal No. 145 of 2007, Appeal No. 159 of 2007 and Appeal No. 14 of 2008. In effect, since the ATE Judgment setting aside the Commission's Order has been stayed, the Commission's Order dated November 6, 2007, is still in force and can be given effect.

TPC-G, in its Petition for Annual Performance Review for FY 2007-08 and Tariff Petition for FY 2008-09, submitted that the PPAs between TPC-G with BEST and between TPC-G and TPC-D have been approved by the Commission. As per the approved PPAs, out of the existing capacity of 1777 MW, 800 MW has been allocated to BEST, while a capacity of 477 MW has been allocated to TPC-D. TPC, in its submission dated March 25, 2008, submitted that out of the 250 MW capacity of Unit-8, as per the approved PPA, 100 MW has been allocated to BEST and 50 MW has been allocated to TPC-D.

Considering the fact that the ATE Judgment dated May 6, 2008 on appeals filed against the Commission's Order on approval of PPA between TPC-G and BEST and internal arrangement between TPC-G and TPC-D, has been stayed by the Hon'ble Supreme Court, the Commission has considered the allocation of power for FY 2008-09 with effect from April 1, 2008 from the existing capacity and Unit-8 of TPC-G based on the approved PPA between TPC-G and BEST and the internal capacity allocation from the generation division of TPC to its own distribution division. Accordingly, from the existing capacity of TPC-G, the Commission for FY 2008-09 with effect from April 1, 2008 has considered the power availability of 477 MW for TPC-D from existing TPC-G Stations for FY 2008-09 and 50 MW from Unit 8.

For estimating the cost of power purchase from TPC-G, the Commission has considered the tariff approved by the Commission in its Order dated April 2, 2008 in Case No. 68 of 2008 on TPC-G's APR Petition for FY 2007-08. The summary of the estimated power purchase quantum and cost of power purchase by TPC-D from TPC-G in FY 2008-09 is given in the following Table:



**Table: Quantum and Variable Cost for Purchase of Power from TPC-G in FY 2008-09**

Particulars	Quantum	Variable Cost
	MU	Rs Crore
Unit-5, 6 & 7	2356.55	785.43
Unit- 4	141.46	100.66
Hydel	367.21	31.55
Unit-8	179.77	67.02
<b>Total</b>	<b>3044.99</b>	<b>984.66</b>

**Table: Other Costs for Purchase of Power from TPC-G in FY 2008-09**

Particulars	Rs Crore
Fixed Charges-Thermal	144.96
Unit-8	19.39
Incentive at Projected Generation	9.26
Less Rebate-Hydel Excess Recovery	26.74
<b>Total</b>	<b>146.87</b>

#### **4.6.2 Renewable Purchase Specification**

For FY 2007-08, TPC-D in its Petition, projected a total quantum of 127.66 MU at an estimated cost of Rs 45.17 Crore as against approved quantum and cost of 127 MU and Rs 45 Crore respectively.

For FY 2008-09, TPC-D submitted that as per the Renewable Purchase Specification (RPS) Order of the Commission dated August 16, 2007 (in Case No. 6 of 2006 in the matter of Long Term Development of Renewable Energy Sources and associated Regulatory Framework), it is obliged to purchase certain quantum (5%) of its energy requirement from renewable sources. Accordingly, TPC-D has projected the power purchase of 146 MU (i.e., 5% of 2921 MU) for FY 2008-09.

TPC-D further submitted that it will procure such renewable energy from its Wind projects set up at Supa (Group II), Khandke (Group III) and Brahmanvel (Group III). TPC-D has considered a weighted average rate of Rs 3.67 per Unit is considered on the basis of the Tariff Order dated November 24, 2003 for Wind projects. Accordingly, TPC-D on the basis of the estimated generation of 146 MU for FY 2008-09 and purchase rate of Rs 3.67 per unit has projected the power purchase cost of Rs 54 Crore towards meeting RPS obligation.

For FY 2007-08, the Commission has considered power purchase quantum and cost from renewable sources as projected by TPC-D and accordingly for provisional truing up purposes has considered 127.66 MU at an estimated cost of Rs 45.17 Crore.



However, the Commission clarifies that it would deliberate on the issue considering the final settlement of RPS for FY 2007-08, during the final truing-up of FY 2007-08.

For FY 2008-09, the Commission has considered the power purchase from Renewable Energy Sources as per RPS obligation, i.e., 5% of the total energy input. Based on the total energy input approved by the Commission, the RPS obligation of TPC-D for FY 2008-09 works out to 159.25 MU and corresponding total cost of meeting the RPS obligation works out to Rs 55.74 Crore by assuming an average rate of Rs 3.50/kWh

#### **4.6.3 Short Term Power Purchase**

TPC-D submitted that the power purchase for FY 2007-08 has been undertaken through a Power Management Group (PMG) comprising the three distribution licensees viz, BEST, REL and TPC-D for jointly procuring the power for the Mumbai region. Also, apart from entering in to contract for purchase of power from various sources, PMG group has also entered in to the arrangement of banking of power under which, the power that is purchased is returned in kind at a later date from TPC-G generation instead of making cash payment. TPC submitted that banking arrangement has provided the facility to the Mumbai consumers to procure power when needed and return the same when it is available from the TPC-G units. Further, TPC-D submitted that the suppliers too prefer this arrangement instead of cash payment as it provides greater flexibility. TPC-D submitted that this arrangement has helped in tiding over the power shortages in the summer months and in October 2007. TPC-D projected the power purchase of 481 MU at an estimated cost of Rs 280 Crore from external sources.

For FY 2008-09, TPC-D, in its Petition, submitted that it has estimated about 36 MU to be purchased during FY 2008-09 from external sources. TPC-D submitted that the cost of such power purchase has been projected based on the recent trend in prices and the expected future prices and accordingly considered the average cost of Rs 7 per Unit. TPC-D submitted that the Distribution Licensees of Mumbai have been purchasing power from external sources in the range of 500 – 650 MW per day comprising firm and infirm power in addition to purchase from TPC-G and REL-G during the year to meet their daily demand in order to avoid load shedding on any given day under all circumstances.

TPC-D submitted that while it has managed to keep the actual average landed cost of external power in Mumbai to around the stipulated Rs.5.50/kwh for the first six months, the same is not holding good for the remaining months of FY 2007-08 due to



various reasons. TPC also submitted that an increase of 7% in power demand has been reported soon after the monsoon months, while it is observed from the statistics that the free market availability of power has shrunk by about 2.8 % in the current year as compared to previous years.

TPC-D submitted that according to the published statistics of average system frequency of the region, a sharp deterioration has been reported from 49.90 Hz in FY 2002-03 to 49.36 Hz in FY 2006-07. TPC-D submitted that this is a clear indication of power demand outstripping supply progressively over the past few years. As the commodity has increasingly become dear, the prices are showing a tendency of spiraling each month. TPC-D further submitted that for instance, infirm power for November/December 2007 is traded in the range of Rs.6.50/kwh at source. Further, power from West Bengal for January-March 2008 has been quoted at Rs.7.15/kwh at source translating into landed cost of Rs.8.10/kwh; a 47% increase in comparison to the rate prevailing in the first half of FY 2007-08.

TPC-D submitted that considering a moderate 7% increase, Mumbai will register a peak demand of over 3000 MW in the coming summer months resulting in energy shortfall. Any such shortfall would need to be bridged by judicious procurement of firm and infirm power from different available sources to prevent load shedding. Hence, the Distribution Licensees in Mumbai had recently invited bids for firm power purchase for one year. Out of the three participants in the bid, Tata Power Trading Company Limited (TPTCL) was the only trader to offer power from November 2007 onwards.

Accordingly, TPC-D, requested the Commission to consider power procurement of 36 MU for FY 2008-09 at cost of Rs. 25 Crore on account of unpredictable prices.

For FY 2007-08, the Commission has considered the power purchase quantum and cost under bilateral sources based on the total energy input requirement as approved in this Order and accordingly has estimated power purchase of 457.05 MU at an estimated cost of Rs 251.38 Crore. For estimation purposes for FY 2007-08, the Commission considering the recent trends for bilateral power purchase has considered an average rate of Rs 5.5/kWh for FY 2007-08. However, the Commission will carry out the final truing up of power purchase from bilateral sources for FY 2007-08 based on actual data during the APR of FY 2008-09.



For FY 2008-09, after considering the power available from existing and new generating stations of TPC-G and RPS, the total power purchase quantum available to TPC works out to be higher than the energy input requirement, resulting into surplus energy of 19.24 MU. For estimating the power purchase cost for FY 2008-09 in this Order, the Commission has considered the rate of Rs 5.50/kWh for sale of this surplus power.

The summary of power purchase from bilateral sources as projected by TPC-D and as approved by the Commission for FY 2007-08 and FY 2008-09 is given in the Table below:

**Table: Purchase of Power from bilateral sources in FY 2007-08 & FY 2008-09**

Particulars	Unit	FY 2007-08			FY 2008-09	
		MYT Order	Revised Estimate	Approved after Provisional truing up	APR Petition	Approved
Bilateral Sources	MU	780	480.64	457.05	36	(19.24)
	Rs Crore	429	280.38	251.38	25	(10.58)

#### **4.6.4 Imbalance Pool for FY 2007-08**

TPC-D submitted that the balance power requirement after sourcing from TPC-G and short term bilateral contracts is being met through imbalance pool settlement undertaken by SLDC and projected a total quantum of 14.22 MU with an estimated cost of Rs 7.15 Crore during FY 2007-08.

The Commission has accepted TPC-D's projection towards imbalance pool for FY 2007-08 and considered power purchase of 14.22 MU at an estimated cost of Rs 7.15 Crore during FY 2007-08. The Commission will carry out the truing up based on actual imbalance pool settlement for the entire year during APR process for FY 2008-09.

#### **4.6.5 Costly Power Purchase**

The Commission has considered the power purchase from Unit-4 of TPC-G as costly power. The summary of purchase cost (variable charges) from the costly source of power as approved by the Commission for FY 2008-09 is given in the Table below:

**Table: Summary of Costly Power Purchase in FY 2008-09**

Source	Quantum (MU)	Variable Cost (Rs Crore)
TPC-G (Unit-4)	141.46	100.66



#### **4.6.6 Month-wise Power Purchase Quantum for FY 2008-09**

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

**Table: Month-wise Power Purchase Quantum (MU) for FY 2008-09**

TPC-D	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
Power Purchase (MU)	268.99	265.52	271.45	266.25	275.24	280.80	273.24	273.33	251.97	246.44	249.19	262.95	3,185.38

#### **4.6.7 Demand Side Management (DSM) Mechanism**

The Commission, in the MYT Order, had deliberated the need for DSM and opined that the distribution licensees need to take steps toward meeting their energy requirement by Supply Side measures as well as Demand Side Management (DSM). Traditionally, the distribution licensees have been looking at the supply side alone. Since there has been no capacity addition in the State for last several years, the licensees in the State of Maharashtra have had to resort to purchase of power from other sources at a very high rate and this has resulted in a higher retail tariff for the consumers, in the form of reliability charges, which comprises expensive power charges and standby charges.

The Commission, in its MYT Order, ruled that 2% of the costly power purchase requirement will have to be reduced by implementation of DSM as an initial step. Accordingly, the Commission has reduced 2% of the costly power purchase, which will be saved through DSM measures. This translated to 0.8% of the total power purchase quantum and reduction in power purchase cost by Rs 10.4 Crore. Therefore, the Commission has considered the reduction in power purchase cost of Rs 10.4 Crore as approved in the MYT Order for FY 2007-08 for the purpose of provisional truing up for FY 2007-08.

For FY 2008-09, the Commission in line with the philosophy adopted in its MYT Order has considered reduction to the extent of 2% of the expenditure on costly power purchase for DSM measures. This translates to 0.15% of the total power purchase and reduction in power purchase cost by Rs 2.01 Crore.



#### **4.6.8 Standby Charges**

TPC-D, in its Petition, submitted that it has estimated the standby charges payable to MSEDCL at Rs 62 Crore for FY 2007-08 and FY 2008-09 based on the standby charges approved by the Commission in its MYT Order for TPC-D for FY 2007-08 and FY 2008-09.

For FY 2007-08, the Commission has considered the standby charges approved in the MYT Order, i.e., Rs 62 Crore. For FY 2008-09, in line with the philosophy adopted in the MYT Order, 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 64.82 Crore. TPC-D will hence, pay standby charges of Rs 64.82 Crore to MSEDCL during FY 2008-09.

#### **4.6.9 SLDC Charges**

The Commission has considered the approved share of TPC-D of the SLDC charges, i.e., Rs 0.44 Crore for FY 2007-08 as approved in the SLDC Budget for FY 2007-08 vide Order dated March 28, 2007 in Case No. 77 of 2006.

The Commission in its Order dated May 30, 2008 in the matter of Approval of SLDC Budget for FY 2008-09 (Case No. 88 of 2007) has determined the mechanism for the recovery of SLDC Fees and Charges for FY 2008-09 and accordingly, the Commission has considered TPC-D's share of the approved SLDC Charges for FY 2008-09, which works out to be Rs 0.44 Crore.

#### **4.6.10 Transmission Charges**

TPC-D, in its Petition, submitted that the Commission in its Order dated April 02, 2007 in the matter of Determination of Transmission Tariff for Intra-State Transmission System (InSTS) determined the manner in which the transmission charges are to be paid by the Transmission System Users (TSU's) for FY 2007-08. Accordingly, TPC-D has considered the approved transmission charges of Rs 54 Crore payable by TPC-D for FY 2007-08.

For FY 2008-09, TPC-D submitted that in the aforesaid Order, the Commission determined the ARR of the three Transmission Utilities for FY 2008-09 and TPC-D has assumed that the percentage share of the distribution utilities will remain same for





FY 2008-09 as well, and computed the transmission charges at Rs 57 Crore for FY 2008-09.

For FY 2007-08, the Commission has considered the transmission charge of Rs 54 Crore as approved by the Commission in its MYT Order for TPC-D.

The Commission vide its Order dated May 31, 2008 in Case No. 104 of 2007 on determination of Transmission Tariff for the Intra-State Transmission System, has approved the revised Transmission charges for FY 2008-09. The total transmission charges payable by TPC-D for FY 2008-09 as approved by the Commission works out to Rs. 64.60 Crore.

#### **4.6.11 Summary of Power Purchase Related Cost**

The summary of the total power purchase cost as approved in MYT Order, as estimated by TPC-D in APR Petition and as approved by the Commission based on provisional truing up for FY 2007-08, is shown in the Table below:

**Table: Approved Power Purchase cost for FY 2007-08**

Sl.	Source	MYT Order		APR Petition		Approved after provisional truing up	
		Quantum	Total Cost	Quantum	Total Cost	Quantum	Total Cost
		MU	Rs Crore	MU	Rs Crore	MU	Rs Crore
1	TPC-G	2272.40	823.60	2204.49	822.21	2204.49	894.71
2	TPC-D (Short Term)	780.00	429.00	480.64	280.38	457.05	251.38
3	RPS	127.20	45.00	127.66	45.17	127.66	45.17
4	Other Sources			-14.22	-7.15	-14.22	-7.15
5	Standby Charges		62.00		62.00		62.00
6	Transmission Charges		53.69		53.69		53.69
7	SLDC Charges						0.44
8	Reduction of Cost (DSM)		-10.42				-10.42
	<b>Total</b>	<b>3179.60</b>	<b>1402.87</b>	<b>2798.58</b>	<b>1256.29</b>	<b>2774.99</b>	<b>1289.82</b>

The summary of the total power purchase cost considered by the Commission during FY 2008-09 is shown in the Table below:



**Table: Approved Power Purchase cost for FY 2008-09**

Source	APR Petition		Approved	
	Quantum	Cost	Quantum	Cost
	MU	Rs Crore	MU	Rs Crore
TPC-G: Thermal excl. Unit 4	2091.0	892.0	2356.5	939.7
TPC-G : Unit 4	126.0	94.0	141.5	100.7
TPC-G : Unit 8	155.0	53.0	179.8	50.9
TPC-G Hydel	367.0		367.2	67.0
RPS	146.0	54.0	159.3	55.7
Additional PP/Sale	36.0	25.0	-19.2	-10.6
Standby Charges		62.0		64.8
Less Hydel Rebate				26.7
<b>Sub-total (Power Purchase)</b>	<b>2921.0</b>	<b>1180.0</b>	<b>3185.0</b>	<b>1241.5</b>
Transmission Charges		57.0		64.60
SLDC Charges				0.4
Reduction of Cost (DSM)				2.0
<b>Total</b>	<b>2921.0</b>	<b>1237.0</b>	<b>3185.0</b>	<b>1304.6</b>

#### **4.7 O&M EXPENSES FOR FY 2007-08 AND FY 2008-09**

The O&M expenditure comprises employee expenditure, A&G expenditure and R&M expenditure, as given below.

##### **4.7.1 Employee Expenses**

TPC submitted that the revised Employee Expenditure for FY 2007-08 is estimated at Rs 14.43 Crore as compared to Rs 10.5 Crore approved in the MYT Order, based on the actual employee expenses for first half of FY 2007-08 and estimated employee expenses for the remaining half of the year. TPC-D submitted the following reasons for deviations in employee expenses vis-à-vis the approved expenses:

##### **Base considered for projections**

The impact of the change in the base employee expenses as discussed in the previous Section, amounts to Rs. 1 Crore.

##### **Revised Accounting Standard 15 (R)**

TPC submitted that the Revised Accounting Standard 15 relating to employee benefits has been made compulsory from April 1, 2007 and this 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;



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

Due to these reasons, the net incremental provision requirement to be made as a result of AS 15 (R) is Rs 25.15 Crore for TPC as a whole and TPC-D's share works out to Rs 1.50 Crore. The summary of the net incremental provision requirement made as a result of AS 15 (R) is given in the Table below:

**Table: Impact of AS 15 (R) (Rs Crore)**

Particulars	Total	Generation	Transmission	Distribution
<b>Normal Benefits</b>				
Privilege Leave	7.0	4.7	1.9	0.4
Sick Leave	3.4	2.3	0.9	0.2
<b>Informal Benefits</b>				
Long Service Award	3.5	2.4	0.9	0.2
Retirement Gifts	0.5	0.3	0.1	0
Health Insurance	0.1	0	0	0
Post Retirement Medical benefits	0.9	0.6	0.2	0.1
Death in Service scheme	9.9	6.6	2.6	0.6
<b>Total</b>	<b>25.2</b>	<b>17.0</b>	<b>6.7</b>	<b>1.5</b>

TPC further submitted that as per the limited revision in AS 15 (R), the Company has an option to charge the additional liability arising upon the first time application of the Standard as an expense over a period of up to 5 years. A liability of Rs 55 Crore has arisen due to the first time applicability relating to the period prior to first application of the standard, which has been amortised by TPC over the period of 5 years. Accordingly, the employee cost for FY 2007-08 for TPC (licensed area) as a whole includes Rs 11 Crore on account of the aforesaid amortisation; the share of TPC-D in this amount is Rs 1 Crore. Thus, the total impact of AS 15 for TPC-D works out to Rs 2.5 Crore. The Commission also notes that these charges were being incurred earlier too and claimed through ARR on actual basis, and AS 15 (R) only requires these to be projected and provided for on accrual basis.

### **Inflationary Impact**

TPC-D submitted that the impact of actual inflation in FY 2007-08 is expected to be around Rs 1 Crore.



For FY 2008-09, TPC-D projected employee expenses of Rs. 13.89 crore, as against Rs.11.07 crore approved by the Commission in the MYT Order on account of the following reasons:

- § Amortisation of AS 15 (R) and impact of AS 15 (R ) for FY 2008-09 of Rs. 1 Crore
- § Impact of revised base for FY 2004-05 of around Rs. 1 Crore
- § Impact of Rs. 1 Crore due to increased inflation

TPC submitted that if the above uncontrollable expenses are considered, then the revised projections are in line with the approved numbers.

For FY 2007-08, for each sub-head of employee expenditure, the Commission has considered an increase of around 6.26% on account of inflation over the revised level of employee expenses as approved for FY 2006-07 under the truing up exercise in this Order, based on the increase in Consumer Price Index (CPI). The Commission has considered the point to point inflation over CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2004-05 to FY 2006-07, to smoothen the inflation curve. However, for certain heads, such as earned leave encashment, interim wage revision and staff welfare expenses, TPC-D's revised estimates have been considered. The capitalisation of employee expenses has been considered at the rate of 7.4% in accordance with the actual level of capitalisation in FY 2006-07. The Commission will undertake the final truing up of employee expenses for FY 2007-08 based on actual employee expenses for the entire year and prudence check, during the APR process for FY 2008-09.

For FY 2008-09, for each sub-head of employee expenditure, the Commission has considered an increase of around 6.26% on account of inflation over the revised level of employee expenses as approved for FY 2007-08 under the provisional truing up exercise in this Order, based on the increase in Consumer Price Index (CPI). However, for the primary heads of employee expenditure such as basic salary, DA, etc., TPC-D's estimates have been considered, since the wage revision has already come into effect, and applying a normative increase may not yield appropriate results. The capitalisation of employee expenses has been considered at the rate of 7.4% in accordance with the actual level of capitalisation in FY 2006-07.

Accordingly, the approved employee expenses for FY 2007-08 and FY 2008-09 is summarised in the following Table:



**Table: Employee Expenses for FY 2007-08 & FY 2008-09 (Rs. Crore)**

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Gross employee expenses		15.32	14.91		14.93	13.81
Less: Capitalisation		0.89	1.10		1.04	1.02
Net employee expenses	<b>10.50</b>	<b>14.43</b>	<b>13.81</b>	<b>11.07</b>	<b>13.89</b>	<b>12.79</b>

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

TPC submitted that the revised A&G Expenditure for FY 2007-08 is estimated at Rs 24.4 Crore as compared to Rs 9.7 Crore approved in the MYT Order, based on the actual A&G expenses for first half of FY 2007-08 and estimated A&G expenses for the remaining half of the year.

TPC-D submitted that the variation between actual A&G expenses in FY 2006-07 vis-à-vis the approved expenses is on account of the following:

- § FAC amount written-off to the extent of Rs. 4 crore, which was actually on account of FY 2006-07, due to interest income considered but not earned due to FAC revision
- § Provision for doubtful deposits with MCGM/MMRDA for undertaking the digging of roads required for laying the cables. Such deposits are refundable after the completion of the work, however, despite repeated follow up and reminders, MCGM/MMRDA has not refunded most of these deposits. As a matter of prudence, deposits that are more than one year old and where the refund is not forthcoming despite reminders and follow up, TPC-D has decided to provide for such “doubtful” deposits. An amount of Rs 2.07 Crores was provided towards doubtful Debt on this account in FY 2007-08.
- § Upgradation of IT infrastructure to the extent of Rs. 1 crore for TPC-D

For FY 2008-09, TPC submitted the projected A&G expenses as Rs. 19.7 crore as compared to the expense of Rs. 10.2 crore approved by the Commission in the MYT Order. TPC-D submitted that if the one-time expenses are netted off, then the expenses are in line with the approved levels.



For FY 2007-08, the Commission has considered an increase of around 5.29% on account of inflation over the revised level of A&G expenses as approved for FY 2006-07 in this Order, 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 of Govt. of India) and CPI numbers for Industrial Workers (as per Labour Bureau, Government of India) for a period of 3 years, i.e., FY 2004-05 to FY 2006-07, to smoothen the inflation curve. The Commission has considered a weight of 60% to WPI and 40% to CPI, based on the expected relationship with the cost drivers. This also considers the deduction made by the Commission on account of disallowance of the expenditure towards Tata Brand Equity. However, in case of expense towards rents, rates and taxes, the Commission has considered TPC-D's projection of the same. The Commission has also disallowed the expenses claimed by TPC-D on account of provisioning of doubtful deposits with MMRDA/MCGM, as these are refundable deposits, and there is no such provision for providing for such 'doubtful' deposits, under the regulatory framework. As regards the FAC write-off of Rs. 3.6 crore, in response to the Commission's query, TPC-D confirmed that its auditors had advised them that there was no need to provide for this write-off, and hence, the same need not be considered as an expense.

The Commission will undertake the final truing up of A&G expenses for FY 2007-08 based on actual A&G expenses for the entire year and prudence check, during the APR process for FY 2008-09.

For FY 2008-09, for each sub-head of A&G expenditure, the Commission has considered an increase of around 5.29% on account of inflation over the revised level of A&G expenses as approved for FY 2007-08 under the provisional truing up exercise in this Order, based on the increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI). However, in case of expense towards professional fees, etc. the Commission has considered TPC-D's projection of the same.

Accordingly, the approved A&G expenses for FY 2007-08 and FY 2008-09 is summarised in the following Table:



**Table: A&G Expenses for FY 2007-08 & FY 2008-09 (Rs. Crore)**

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Net A&G expenses	9.66	24.39	13.06	10.18	19.72	12.77

#### **4.7.3 R&M Expenses**

TPC submitted that based on the actual R&M expenses for first half of FY 2007-08 and estimated R&M expenses for the remaining half of the year, the revised R&M expenditure for FY 2007-08 is estimated at Rs 6.2 Crore, which is higher than the R&M expenditure of Rs 3.1 Crore approved in the MYT Order. For FY 2008-09, TPC submitted that it had estimated the R&M expenses at Rs. 9.3 crore as compared to the expense of Rs. 3.2 approved by the Commission in the MYT Order.

For FY 2007-08, for each sub-head of R&M expenditure, the Commission has considered an increase of around 4.65% on account of inflation over the revised level of R&M expenses as approved for FY 2006-07 under the truing up exercise in this Order, based on the increase in Wholesale Price Index (WPI). The Commission has considered the point to point inflation over WPI numbers (as per Office of Economic Advisor of Govt. of India) for a period of 3 years, i.e., FY 2004-05 to FY 2006-07, to smoothen the inflation curve. The Commission will undertake the final truing up of R&M expenses for FY 2007-08 based on actual R&M expenses for the entire year and prudence check, during the APR process for FY 2008-09.

For FY 2008-09, for each sub-head of R&M expenditure, the Commission has considered an increase of around 4.65% on account of inflation over the revised level of R&M expenses as approved for FY 2007-08 under the provisional truing up exercise in this Order, based on the increase in Wholesale Price Index (WPI), as detailed above. Accordingly, the approved R&M expenses for FY 2007-08 and FY 2008-09 is summarised in the following Table:



**Table: R&M Expenses for FY 2007-08 & FY 2008-09 (Rs. Crore)**

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Net R&M expenses	3.06	6.20	5.12	3.22	9.25	5.35

#### 4.7.4 O&M expenses

The total O&M expenses approved by the Commission for FY 2007-08 and FY 2008-09 is summarised in the following Table:

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

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Net employee expenses	10.50	14.43	13.81	11.07	13.89	12.79
Net A&G expenses	9.66	24.39	13.06	10.18	19.72	12.77
Net R&M expenses	3.06	6.20	5.12	3.22	9.25	5.35
<b>Total O&amp;M expenses</b>	<b>23.22</b>	<b>45.02</b>	<b>31.99</b>	<b>24.47</b>	<b>42.86</b>	<b>30.91</b>

#### 4.8 CAPITAL EXPENDITURE AND CAPITALISATION FOR FY 2007-08 AND FY 2008-09

Capital expenditure and capitalisation are two important variables that influence computation of various critical parameters such as depreciation, interest on long term debt and return on equity. Accordingly, variation between the approved values and actual performance during the Control Period needs to be evaluated carefully during Annual Performance Review. The capital expenditure and capitalisation considered by the Commission in the MYT Order and the revised estimates submitted by TPC are given in the Table below:





**Table: Capital Expenditure & Capitalisation projected by TPC for FY 2007-08 & FY 2008-09**  
**(Rs. Crore)**

Particulars	FY 2007-08		FY 2008-09	
	MYT Order	Revised Estimate by TPC	MYT Order	Revised Estimate by TPC
Capital Expenditure	32.83	75.27	12.39	39.08
Capitalisation	47.73	96.71	20.45	39.75

For the purpose of APR exercise for FY 2007-08 and revised projection for FY 2008-09, the Commission has considered capital expenditure and capitalisation of the DPR schemes that have already been approved by the Commission. Accordingly, the Commission has considered capitalisation on account of 110 kV power supply to HPCL during FY 2007-08 as proposed by TPC. However, the Commission has considered capitalisation of two schemes of 110 kV single phase power supply to Western Railways, during FY 2008-09 instead of capitalisation during FY 2007-08 as proposed by TPC, as Commission observed that capital expenditure of only Rs 1.69 Crore and Rs 2.76 Crore has been incurred in respect of these schemes until Jan 2008 as against approved capex of Rs 17.87 Crore and Rs 17.30 Crore respectively.

As regards, capitalisation of Non-DPR schemes during FY 2007-08, the Commission has considered the capitalisation of Non-DPR schemes initiated during FY 2004-05 and FY 2005-06 as proposed by TPC-D, however, in respect of Non-DPR schemes initiated during FY 2006-07 such as replacement of old breakers, distribution automation of Saki network, distribution automation at Borivali, procurement of Schindler make 21 RMUs and other schemes, the Commission has considered actual capitalisation as incurred till Jan 2008 as submitted by TPC-D in response to Commission's query instead of that projected by TPC-D under APR forms. The Commission shall review the need for revision in capitalisation at the time of final truing-up for FY 2007-08 and annual performance review for FY 2008-09.

Accordingly, approved capital expenditure and capitalisation for FY 2007-08 and FY 2008-09 is summarised in the following Table:



**Table: Approved Capital Expenditure & Capitalisation for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved after provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Capital Expenditure	32.83	75.27	33.34	12.39	39.08	68.15
Capitalisation	47.73	96.71	47.32	20.45	39.75	73.27

#### 4.9 DEPRECIATION AND ADVANCE AGAINST DEPRECIATION

The Commission, in its MYT Order, had considered depreciation expenditure of Rs 15.05 Crore and Rs 16.64 Crore for FY 2007-08 and FY 2008-09, respectively, which amounts to 3.61% and 3.58% of Opening level of Gross Fixed Assets (GFA) of TPC-D for FY 2007-08 and FY 2008-09, respectively. The opening GFA was considered as Rs 417.25 Crore and Rs 464.98 Crore for FY 2007-08 and FY 2008-09, respectively, and the depreciation rates were considered as prescribed under MERC (Terms and Conditions of Tariff) Regulations, 2005.

TPC, in its APR Petition, submitted the revised estimate of depreciation expenditure for FY 2007-08 and FY 2008-09 as Rs 14.92 Crore and Rs 19.55 Crore, respectively.

**Table: Depreciation expenditure projected by TPC for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08		FY 2008-09	
	MYT Order	Revised Estimate by TPC	MYT Order	Revised Estimate by TPC
Depreciation	15.05	14.92	16.64	19.55
Opening GFA	417.25	395.07	464.98	491.67
Depn as % of Op. GFA	3.61%	3.78%	3.58%	3.98%

The Commission has examined the depreciation and actual capitalisation claimed by TPC in detail as against the various capex schemes approved by the Commission. Further, TPC-D, in its additional submissions, confirmed that depreciation has not been claimed beyond 90% of the asset value in line with the Tariff Regulations. The



Commission has considered the depreciation on the opening GFA only and not on the assets added during the year in line with the Tariff Regulations. In view of revised value of capitalisation as approved under previous paragraphs, the approved depreciation expenditure for FY 2007-08 and FY 2008-09 is summarised in the following Table:

**Table: Approved Depreciation expenditure for FY 2007-08 & FY 2008-09**

**(Rs. Crore)**

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved	MYT Order	Revised Estimate by TPC	Approved
Depreciation	15.05	14.92	13.28	16.64	19.55	16.78
Opening GFA	417.25	395.07	394.96	464.98	491.67	442.16
Depn as % of Op. GFA	<b>3.61%</b>	<b>3.78%</b>	<b>3.36%</b>	<b>3.58%</b>	<b>3.98%</b>	<b>3.80%</b>

The Commission will undertake the truing up of Depreciation based on actual expenditure during the entire year, subject to prudence check, during Performance Review for the second year of Control Period, i.e., FY 2008-09.

#### **4.10 INTEREST EXPENSES**

The Commission, in its MYT Order, had allowed interest expenses of Rs 9.83 Crore and Rs 11.35 Crore for FY 2007-08 and FY 2008-09, respectively, with a weighted average interest rate of 9.4% and 9.3%, respectively. Loan addition of Rs 33.41 Crore and Rs 14.31 Crore was considered in the MYT order for FY 2007-08 and FY 2008-09, respectively, corresponding to 70% of the asset cost capitalised during respective years.

TPC, in its APR Petition, submitted revised estimate of interest expenses for FY 2007-08 and FY 2008-09 as Rs 10.03 Crore and Rs 13.72 Crore, respectively, at a weighted average interest rate of 9.4% and 9.3% for FY 2007-08 and FY 2008-09, respectively.



**Table: Interest expenditure projected by TPC for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08		FY 2008-09	
	MYT Order	Revised Estimate by TPC	MYT Order	Revised Estimate by TPC
Op. balance of loan	91.07	75.77	118.36	137.34
Loan Addition	33.41	67.70	14.31	27.82
Loan Repayment	(6.12)	(6.12)	(6.12)	(6.12)
Closing Balance of loan	118.36	137.34	126.55	159.04
<b>Interest expenses</b>	<b>9.83</b>	<b>10.03</b>	<b>11.35</b>	<b>13.72</b>
Effective Interest rate	9.4%	9.4%	9.3%	9.3%

TPC submitted that interest on debt for FY 2007-08 has been computed based on interest on normative loans for previous years, actual loans for FY 2006-07, and interest computed on 70% of the expenditure to be capitalised in FY 2007-08. TPC has raised a loan of Rs 450 Crore from IDFC to fund its current capital expenditure as per 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%.

The Commission in its Order dated October 3, 2006 in Case 12 & 56 of 2005 as well as in the MYT Order, has considered interest rate on loans corresponding to capitalised assets as 10% p.a. for assets put to use during FY 2004-05 and FY 2005-06, with a loan repayment period of 10 years in respect of such loans. Further, for assets capitalised during FY 2006-07 and during the Control Period, TPC projected capex funding through loan from IDFC to the extent of Rs 450 Crore and loan of Rs 400 Crore from IDBI. The Commission is of the view that it is essential that loans be drawn or attributed to particular project scheme for scheme-wise accounting purposes. Further, in response to the Commission's specific query, TPC confirmed that it has not yet drawn any loan from IDBI.

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 FY 2006-07 and during the initial two years of the Control Period as per loan terms under IDFC loan having



minimum interest rate of 8.9% p.a. with moratorium of 3 years and repayment of 9 years, as proposed by TPC.

Accordingly, interest expenses approved for FY 2007-08 and FY 2008-09 is summarised in the following Table:

**Table: Approved Interest expenditure for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Op. balance of loan	91.07	75.77	75.69	118.36	137.34	101.28
Loan Addition	33.41	67.70	31.72	14.31	27.82	26.67
Loan Repayment	(6.12)	(6.12)	(6.12)	(6.12)	(6.12)	(6.12)
Cl. Balance of loan	118.36	137.34	101.28	126.55	159.04	121.83
<b>Interest expenses</b>	<b>9.83</b>	<b>10.03</b>	<b>8.39</b>	<b>11.35</b>	<b>13.72</b>	<b>10.37</b>
<b>Effective Interest rate</b>	9.4%	9.4%	9.5%	9.3%	9.3%	9.3%

#### 4.11 INTEREST ON WORKING CAPITAL FOR FY 2007-08 & FY 2008-09

As regards Interest on 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 in FY 2007-08. For FY 2007-08 and FY 2008-09, TPC estimated the Interest on Working Capital (IWC) considering interest rate @ 12.75% as per the components considered in the Tariff Regulations, with the revised Interest on Working Capital estimated at Rs 13.53 Crore and Rs. 15.52 Crore, respectively, as against Rs 11 Crore approved by the Commission for both the years.

The Commission has estimated the working capital requirement for TPC-D for FY 2007-08 and FY 2008-09, considering the provisional truing up of various elements of costs. The Tariff Regulations stipulate 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 application for determination of revenue requirement for FY 2007-08



was made on January 3, 2007, the Commission has considered the short-term Prime Lending Rate of State Bank of India of 11.5% prevalent at that time for estimating the interest on working capital. For FY 2007-08, the Commission has also considered the finance charges, commission and brokerage on long-term loans as Rs. 1.26 Crore as projected by TPC. For FY 2008-09, since the APR Petition was filed on January 7, 2008, the interest rate of 12.75% has been considered for estimating the working capital interest. The interest on consumers' security deposit has been considered as Rs. 1.42 crore at the same level as in FY 2006-07.

The approved interest on working capital and other interest and finance charges for TPC-D for FY 2007-08 and FY 2008-09 is given in the following Table:

**Table: Interest on Working Capital for FY 2007-08 & FY 2008-09 (Rs Crore)**

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Interest on working capital, consumers security deposit & other finance charges	14.42	16.56	16.46	14.57	20.61	18.11

#### 4.12 PROVISIONING FOR BAD DEBTS

In the APR Petition, TPC-D has considered a provision of Rs. 5 Crore towards Bad and Doubtful debts against the approved amount of Rs. 4 Crore for FY 2007-08 and FY 2008-09.

For FY 2007-08 and FY 2008-09, the Commission has retained the approved level of provisioning of bad debts as Rs. 4 crore, since no rationale has been submitted for the increase in provisioning.

#### 4.13 NON TARIFF INCOME FOR FY 2007-08 & FY 2008-09

TPC submitted that the Non-Tariff Income for FY 2007-08 largely comprises non-recurring income except for rental income, and is estimated at Rs 3.16 Crore as against Rs 0.9 Crore approved by the Commission in the MYT Order. For FY 2008-09, TPC projected the non-tariff income as Rs. 1.35 Crore, as compared to Rs. 1 Crore considered by the Commission in the MYT Order.



For FY 2007-08 and FY 2008-09, the Commission has considered the non-tariff income at the revised estimate submitted by TPC-D for FY 2007-08. The Commission will undertake the final truing up of Non Tariff Income based on audited accounts during Performance Review for the second year of Control Period, i.e., FY 2008-09. The approved non-tariff income for TPC-D for FY 2007-08 and FY 2008-09 is given in the following Table:

**Table: Non-tariff Income for FY 2007-08 & FY 2008-09** (Rs Crore)

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Non-Tariff Income	0.90	3.16	3.16	1.00	1.35	3.16

#### 4.14 INCOME TAX FOR FY 2007-08 & FY 2008-09

TPC submitted that for FY 2007-08, the income tax is estimated at Rs 7.6 Crore as against the approved level of Rs 7.4 Crore. For FY 2008-09, TPC estimated the income tax as Rs. 14.4 Crore as against the approved level of Rs 8.4 Crore.

The Commission has accepted TPC-T's projections of income tax liability for FY 2007-08 and FY 2008-09 as estimated in the APR Petition. The Commission will however, true up the income tax, based on actual revenue and expenditure of TPC-D for FY 2007-08 and FY 2008-09.

#### 4.15 CONTRIBUTION TO CONTINGENCY RESERVES FOR FY 2007-08 & FY 2008-09

TPC projected the contribution to contingency reserves for FY 2007-08 and FY 2008-09 at 0.5% of opening GFA, as Rs. 2.30 Crore and Rs. 2.46 Crore, respectively, in accordance with the Commission's Tariff Regulations.

In this regard, the MERC (Terms and Conditions of Tariff) Regulations, 2005 stipulates,

*"50.7.1 Where the Transmission Licensee has made an appropriation to the Contingencies Reserve, a sum not less than 0.25 per cent and not more*



*than 0.5 per cent of the original cost of fixed assets shall be allowed towards such appropriation in the calculation of aggregate revenue requirement:*

*Provided that where the amount of such Contingencies Reserves exceeds five (5) per cent of the original cost of fixed assets, no such appropriation shall be allowed which would have the effect of increasing the reserve beyond the said maximum:*

*Provided further that the amount so appropriated shall be invested in securities authorized under the Indian Trusts Act, 1882 within a period of six months of the close of the financial year.”*

As discussed in the paragraphs on truing up for FY 2006-07, TPC-D has submitted the documentary evidence of investment of the contingency reserve in the approved securities, as stipulated in the Tariff Regulations.

The Commission has decided to provide for contingency reserves for all transmission licensees and distribution licensees at the minimum rate of 0.25% of opening GFA, as permitted under the Commission’s Tariff Regulations, rather than 0.5% of opening GFA as claimed by the licensees. Since the MYT Order had considered the contingency reserves for FY 2007-08 as 0.5% of opening GFA, no change has been made to the same. However, for FY 2008-09, the Commission has considered the contribution to contingency reserves at 0.25% of opening GFA, after considering the actual capitalisation and revised estimate of capitalisation for these years, as discussed in earlier paragraphs.

The approved contribution to contingency reserves for TPC-D for FY 2007-08 and FY 2008-09 is given in the following Table:

**Table: Contribution to Contingency Reserves for FY 2007-08 & FY 2008-09**

*(Rs Crore)*

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Contribution to Contingency Reserves	2.30	2.46	1.97	2.46	2.66	1.11





#### 4.16 RETURN ON EQUITY (ROE) FOR FY 2007-08 & FY 2008-09

The Commission, in its MYT Order, had permitted Return on Equity to the extent of Rs 25.40 Crore for FY 2007-08 and Rs 27.03 Crore for FY 2008-09, at a rate of return of 16%, in accordance with MERC Tariff Regulations, 2005.

TPC, in its APR Petition, submitted the revised estimate for return on equity for FY 2007-08 and FY 2008-09 as Rs 22.92 Crore and Rs 26.20 Crore, respectively.

**Table: RoE projected by TPC for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08		FY 2008-09	
	MYT Order	Revised Estimate by TPC	MYT Order	Revised Estimate by TPC
Regulatory Equity at the beginning of the year	151.57	128.75	165.89	157.76
Equity portion of assets capitalised	14.32	29.01	6.13	11.92
Regulatory Equity at the end of the year	165.89	157.76	172.03	169.69
Return on Regulatory Equity at the beginning of the year	24.25	20.60	26.54	25.24
Return on Equity portion of capital expenditure Capitalised	1.15	2.32	0.49	0.95
<b>Total Return on Regulatory Equity</b>	<b>25.40</b>	<b>22.92</b>	<b>27.03</b>	<b>26.20</b>

TPC submitted that based on the capital expenditure and capitalisation and debt:equity norm of 70:30, the return on equity on the equity portion has been considered at 16%. Further, TPC has computed RoE on the opening equity as well as on the equity portion of the capitalisation during the year.

The Commission has computed the RoE for FY 2007-08 and FY 2008-09 on the opening balance of equity as well as 50% of the equity component of the assets capitalised during the year in accordance with the Regulation 63.1 and Regulation



76.1 of MERC (Terms and Conditions of Tariff) Regulations, 2005 as applicable for the distribution business. Accordingly, approved Return on Equity for FY 2007-08 and FY 2008-09 is summarised in the following Table:

**Table: Approved RoE for FY 2007-08 & FY 2008-09**

(Rs. Crore)

Particulars	FY 2007-08			FY 2008-09		
	MYT Order	Revised Estimate by TPC	Approved After provisional truing up	MYT Order	Revised Estimate by TPC	Approved
Regulatory Equity at the beginning of the year	151.57	128.75	128.75	165.89	157.76	142.34
Equity portion of assets capitalised	14.32	29.01	13.59	6.13	11.92	11.43
Regulatory Equity at the end of the year	165.89	157.76	142.34	172.03	169.69	153.77
Return on Regulatory Equity at the beginning of the year	24.25	20.60	20.60	26.54	25.24	22.77
Return on Equity portion of capital expenditure Capitalised	1.15	2.32	1.09	0.49	0.95	0.91
<b>Total Return on Regulatory Equity</b>	<b>25.40</b>	<b>22.92</b>	<b>21.69</b>	<b>27.03</b>	<b>26.20</b>	<b>23.69</b>

#### 4.17 DEMAND SIDE MANAGEMENT (DSM) EXPENSES FOR FY 2008-09

The Commission has approved expenditure for undertaking DSM expenses through a separate process, to the extent of Rs. 7.53 crore. Of this, Rs.3.72 crore will be met through the funds available under the LMC fund collected from the consumers earlier, and the balance expense of Rs. 3.82 crore has been considered in the ARR of FY 2008-09.



#### 4.18 AGGREGATE REVENUE REQUIREMENT FOR FY 2007-08 AND FY 2008-09

Based on analysis of each element discussed above, the Aggregate Revenue Requirement of TPC-D for FY 2007-08 and FY 2008-09 as approved by the Commission in its MYT Order, as estimated by TPC in APR Petition and as approved by the Commission in this Order is given in the following Tables:

**Table: Aggregate Revenue Requirement for FY 2007-08 (Rs Crore)**

Sl.	Particulars	FY 2007-08		
		April - March (Estimated)	Order	Approved after provisional truing up
1	Power Purchase Expenses (TPC - G)	822.00	823.60	894.71
2	Power Purchase Expenses (RPO)	45.00	45.00	45.17
3	Power Purchase from Other Sources	280.00	429.00	251.38
4	Pool purchase/(sales)	(7.00)		(7.15)
5	Reduction due to DSM		(10.00)	(10.42)
6	Standby Charges Payable	62.00	62.34	62.00
7	Transmission Charges Payable & SLDC charges	53.69	53.69	54.13
9	Operation & Maintenance Expenses	45.01	23.22	31.98
9.1	<i>Employee Expenses</i>	<i>14.43</i>	<i>10.50</i>	<i>13.81</i>
9.2	<i>Administration &amp; General Expenses</i>	<i>24.39</i>	<i>9.66</i>	<i>13.06</i>
9.3	<i>Repair &amp; Maintenance Expenses</i>	<i>6.20</i>	<i>3.06</i>	<i>5.12</i>
10	Depreciation, including advance against depreciation	14.92	15.05	13.28
11	Interest and Other Financial Charges	26.59	24.25	24.85
11.1	<i>Interest on Long-term Loan Capital</i>	<i>10.03</i>	<i>9.83</i>	<i>8.39</i>
11.2	<i>Interest on Working Capital and on consumer security deposits</i>	<i>15.30</i>	<i>14.42</i>	<i>15.20</i>
11.3	<i>Other Finance Charges</i>	<i>1.26</i>	<i>0.00</i>	<i>1.26</i>
12	Bad Debts Written off	3.61	4.00	4.00
13	Income Tax	7.56	7.40	7.56
14	Contribution to contingency reserves	1.98	2.32	1.97
<b>17</b>	<b>Total Revenue Expenditure</b>	<b>1,355.36</b>	<b>1,479.87</b>	<b>1,373.45</b>
18	Return on Equity Capital	22.92	25.40	21.69
<b>19</b>	<b>Aggregate Revenue Requirement</b>	<b>1,378.28</b>	<b>1,505.27</b>	<b>1,395.14</b>



Sl.	Particulars	FY 2007-08		
		April - March (Estimated)	Order	Approved after provisional truing up
20	Less: Non Tariff Income	3.16	0.90	3.16
<b>24</b>	<b>Aggregate Revenue Requirement from Retail Tariff</b>	<b>1,375.12</b>	<b>1,504.37</b>	<b>1,391.98</b>

Based on provisional truing up of various elements for FY 2007-08 as discussed in above paragraphs, the Aggregate Revenue Requirement for FY 2007-08 works out to Rs 1391.98 Crore, as against the amount of Rs 1504.4 Crore approved in the MYT Order. This reduction in the Aggregate Revenue Requirement is primarily on account of the reduction in the sales and hence, costly power purchase, which has been offset partly by increase in the power purchase from TPC-G, which was not considered by TPC-D.

The Aggregate Revenue Requirement for FY 2008-09 is shown below:

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

Sl.	Particulars	FY 2008-09	
		Revised Estimate	Approved
1	Power Purchase Expenses (TPC - G)	1,039.00	1,131.53
2	Power Purchase Expenses (RPO)	54.00	55.74
3	Power Purchase from Other Sources	25.00	
4	Pool purchase/(sales)		(10.58)
5	Reduction due to DSM		(2.01)
6	Standby Charges Payable	62.00	64.82
7	Transmission Charges Payable	57.00	64.60
8	SLDC Fees & Charges		0.44
9	Operation & Maintenance Expenses	42.86	30.92
9.1	Employee Expenses	13.89	12.79
9.2	Administration & General Expenses	19.72	12.77
9.3	Repair & Maintenance Expenses	9.25	5.35
10	Depreciation, including advance against depreciation	19.55	16.78
11	Interest and Other Financial Charges	34.33	28.49



Sl.	Particulars	FY 2008-09	
		Revised Estimate	Approved
11.1	Interest on Long-term Loan Capital	13.72	10.37
11.2	Interest on Working Capital and on consumer security deposits	18.32	15.82
11.3	Other Finance Charges	2.29	2.29
12	Bad Debts Written off	5.00	4.00
13	Income Tax	14.42	14.42
14	Contribution to contingency reserves	2.46	1.11
15	Adjustment for profit/loss on account controllable/uncontrollable factors		
16	DSM Budget		3.82
<b>17</b>	<b>Total Revenue Expenditure</b>	<b>1,355.61</b>	<b>1,404.06</b>
18	Return on Equity Capital	26.20	23.69
<b>19</b>	<b>Aggregate Revenue Requirement</b>	<b>1,381.81</b>	<b>1,427.75</b>
20	Less: Non Tariff Income	1.35	3.16
<b>24</b>	<b>Aggregate Revenue Requirement from Retail Tariff</b>	<b>1,380.46</b>	<b>1,424.59</b>

The ARR for FY 2008-09 is higher than that projected by TPC-D in its APR Petition, primarily on account of the higher power purchase expenses from TPC-G, which has been necessitated by the higher sales projected by the Commission as compared to TPC-D's projections.

#### **4.19 REVENUE FROM EXISTING TARIFF FOR FY 2007-08 AND FY 2008-09**

In the APR Petition, TPC has computed the revenue from existing tariffs for FY 2007-08, on the basis of the actual category-wise revenue over the period from April to September 2007, and projected revenue for the period from October 2007 to March 2008 on the basis of the projected sales during this period and the prevailing category-wise tariffs. TPC-D has estimated the revenue for FY 2007-08 as Rs. 1287 crore, as compared to the revenue of Rs. 1506 crore estimated in the MYT Order issued for TPC-D by the Commission. The lower revenue is primarily on account of the lower sales in FY 2007-08 as compared to the approved sales in FY 2007-08. For FY 2008-09, TPC-D estimated the revenue from sale of electricity as Rs. 1320 crore, on the basis of the projected sales during this period and the prevailing category-wise tariffs.



In order to have a realistic estimate of the actual sales and revenue during FY 2007-08, the Commission asked TPC-D to submit the details of the actual category-wise sales and actual revenue earned through the sales to different consumer categories over the period April 2007 to February 2008, which was submitted by TPC-D. As discussed earlier in this Section, the actual sales in FY 2007-08 have been lower than the sales projected in the MYT Order, resulting in lower requirement for costly power purchase and hence, reduction in the power purchase cost. At the same time, the revenue from sale of electricity has also reduced correspondingly. Based on the actual revenue earned by TPC-D through sale of electricity over the period from April 2007 to February 2008, the Commission assessed the revenue for FY 2007-08, as Rs. 1283.7 crore. Since there is a marginal difference between the estimates based on actual sales till February 2008 and the revenue projected in the APR Petition, the Commission has accepted TPC-D's estimate of revenue as projected in the APR Petition, at Rs. 1287 crore. Based on audited results submitted at the time of APR of FY 2008-09, the Commission will true up the actual expenses and revenue for FY 2007-08, subject to prudence check.

For FY 2008-09, the Commission has estimated the revenue from sale of electricity on the basis of the revised sales projected by the Commission during this period and the prevailing category-wise tariffs. The expected revenue from existing tariffs for FY 2008-09 works out to Rs. 1493 crore, which is on account of the significantly higher sales projected by the Commission.



## **5 TARIFF PHILOSOPHY AND CATEGORY-WISE TARIFFS FOR FY 2008-09**

### **5.1 APPLICABILITY OF REVISED TARIFFS**

The revised tariffs will be applicable from June 1, 2008 till March 31, 2009. 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 consumed during respective period arrived at on the basis of average unit consumption per day multiplied by number of days in the respective period falling under the billing cycle).

The Commission has determined the tariffs and revenue from revised tariffs as if the revised tariffs are applicable for the entire year. The Commission clarifies that any shortfall in actual revenue vis-à-vis the revenue requirement approved after truing up, due to the applicability of the revised tariffs for only ten months of FY 2008-09, will 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 2008-09. TPC-D is directed to submit its Petition for Annual Review of its performance during the first half of FY 2008-09, as well as truing up of revenue and expenses for FY 2007-08, with detailed reasons for deviation in performance, latest by November 30, 2008.

### **5.2 REVENUE GAP FOR FY 2007-08 AND FY 2008-09**

In the APR Petition, TPC-D submitted that the total revenue gap for FY 2007-08 is estimated at Rs. 65 crore. TPC-D submitted that considering that these values are still an estimate for H2 of FY 2007-08, TPC-D is not seeking any revision for the estimates for the year. TPC-D however reserved the right to seek revisions after the determination of the actual amount for the whole year during the truing up process. For FY 2008-09, TPC-D estimated the revenue gap as Rs 61 Crore.



The Commission has recomputed the revenue gap in FY 2007-08 after considering the ARR approved by the Commission for FY 2007-08 after provisional truing up and the estimated revenue for FY 2007-08. This works out to Rs. 104 crore, which has been added to the revenue gap for FY 2008-09, in order to determine the overall revenue gap.

For FY 2008-09, the Commission has recomputed the revenue gap after considering the ARR approved by the Commission in this Order and the estimated revenue for FY 2008-09, which works out to a surplus of Rs. 68 crore.

In order to compute the total revenue gap in FY 2008-09, the surplus of Rs. 36.02 crore passed on to TPC-D after consolidated truing up for TPC as a whole for FY 2006-07 (refer Para 3.13.2) has been added to the revenue gap estimated above. The total revenue gap, thus works out to Rs. 0.47 Crore, which is negligible, and thus, the Commission has assessed there is no revenue gap for FY 2008-09.

### **5.3 TARIFFS PROPOSED BY TPC-D**

TPC submitted that the resultant gap to be recovered in FY 2008-09 is only Rs. 59 Crore and will require an overall increase of 4.45% over the existing Base Tariffs, i.e., Tariffs without considering the present FAC. The increase required is less than half of the CPI inflation expected in the year.

Considering that the increase is only nominal and not even covering the inflation expected in this year, TPC-D proposed that the existing tariff structure be revised to the minimal possible. TPC proposed that the consumers of TPC-D shall pay about Rs. 5.11 per kWh (including estimated FAC of Rs. 0.22 per kWh) under the existing tariff regime i.e a Base Tariff of Rs 4.89 per kWh and a FAC of Rs 0.22 per kWh. At a proposed tariff of Rs 5.11 per kWh, the gap is estimated to be nil. The gap therefore required to be recovered converts to only Rs. 0.22 per kWh over the Base Tariff. Hence, effectively, the base tariff proposed is the same as what the consumers are paying at the existing base tariff and FAC taken together.

As the increase is largely on account of increased fuel prices, it is proposed that the entire increase required with respect to Base Tariff be recovered through Energy Charges. Such a proposal will result in minimal changes in the impact on tariff to each consumer as they are already paying for these charges through FAC. TPC proposed that the increase in Energy Charges be applied uniformly across all consumer categories.

TPC did not propose any change in the Demand Charges. TPC-D proposed to increase the Energy Charges to ensure recovery of the gap of Rs. 59 Crore and would result in





an average increase required of 5 % in Energy Charges. However, in real terms, the tariffs to be paid by the consumers remain at the same existing levels.

As discussed above, the Commission has estimated that there is no revenue gap in FY 2008-09, after considering the surplus of FY 2006-07 and impact of provisional truing up for FY 2007-08. However, the Commission has undertaken tariff rationalisation, as discussed in the following paragraphs.

#### **5.4 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 and tariff categorisation have been determined so that the cross-subsidy is reduced without subjecting any consumer category to a tariff shock, and also to consolidate the movement towards uniform tariff categorisation throughout the State of Maharashtra.

The Commission is of the view that it is not feasible to have uniform tariffs across different licensees, due to inherent differences, such as revenue requirement, consumer mix, consumption mix, LT:HT ratio, etc. It is also, not appropriate to compare category-wise tariffs across different licensees for the same reasons. However, the Commission has observed that the tariff categorisation and applicability of tariffs is different across different licensees in the State, which is not appropriate. The differences exist because of historical reasons and differences in management policies and approach across licensees. However, within one State, the consumer categorisation and applicability of tariffs should not be significantly different, and the Commission has attempted to achieve this objective in this Order and other Orders for the distribution licensees in the State. There will of course, be some differences, on account of certain consumer categories being present only in certain licence areas, such as agricultural category, power looms, etc., which will exist only in certain licence areas.

The existing Fuel Adjustment Cost (FAC) Charge has been brought to zero, on account of the adoption of the existing fuel costs for projection of the fuel expenses. In case of any variation in the fuel prices with respect to these levels, TPC-D 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, and the details of the computation and



recovery from the same will have to be submitted to the Commission for post-facto, on a quarterly basis. It is also clarified that the FAC mechanism will be applicable for both, non-costly sources as well as expensive sources of power purchase.

In the MYT Order, the Commission segregated the standby charges and expensive power charges, which were earlier embedded within the energy charges, and charged to specific categories of consumers. The Commission has continued with this approach, since the genesis for the segregation of the charges still exists, though the impact is lower, on account of the reduced purchase of expensive power having to be undertaken by TPC-D, due to availability of cheaper power from TPC-G. However, it is clarified that these charges are a part of the energy charges, and the Commission has only indicated these charges separately, with the intention of sensitising the consumers about the consequences of the rapid increase in consumption and the ever-increasing demand-supply gap. 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 65 Crore. The average rate of standby charges works out to 21 paise/kWh, and the same has been levied on all consumers for their entire consumption, except BPL category consumers.

Power purchase from Unit 4 of TPC-G has been considered under expensive power, and the total power purchase expense from this source is around Rs 100 Crore in FY 2008-09, which has been levied to 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, the proportion of expensive power purchase from outside the State, is increasing very rapidly, which not only increases the cost, but also increases the uncertainty of supply, since many times, these contracts are on 'as available' and 'day-ahead' basis. 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. Hence, the Commission has continued to determine the tariffs such that there is an in-built incentive to consumers to reduce their consumption, as the impact on the bills is designed to increase as the consumption increases.

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

The applicability of the BPL category tariffs has been modified slightly such that BPL category will be available only to such residential consumers who have a sanctioned load of upto and less than 0.1 kW, and have consumed less than 360 units per annum in the previous financial year. The eligibility criteria has thus, been modified from a monthly limit of 30 units to an annual limit of 360 units, so that it leaves some flexibility in consumption with the BPL consumer. The applicability of BPL category will have to be assessed at the end of each financial year. In case any BPL consumer



has consumed more than 360 units in the previous financial year, then the consumer will henceforth, be considered under the LT-1 residential category. Once a consumer is classified under the LT-1 category, then he cannot be classified under BPL category.

The Commission has continued with the practice of charging higher tariffs for residential consumers having monthly consumption above 300 units per month and above 500 units per month, since, 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 the first three slabs in domestic category has not been changed, however, and the existing tariffs will continue.

In view of the ATE's decision in this regard, the Commission has done away with LT-IX category, the separate consumer categorisation for shopping malls and multiplexes. All these consumers will henceforth, be classified under LT-2 commercial category, as was being done earlier. Further, three new sub-categories have been created under LT-2 category on the basis of sanctioned load, viz., 0 to 20 kW, 21 kW to 50 kW, and above 50 kW sanctioned load. The Commission has determined the tariffs for these two sub-categories at higher levels.

The existing HT-II Industrial and textiles category has been merged with CPPs (under HT I earlier) and renamed as HT-I Industrial category, in order to ensure consistency with the nomenclature applicable for other licensees. Similarly, the existing HT-III Commercial category has been renamed as HT-II Commercial category. The existing HT-I Public category has been renamed as HT-III – Public and Government category. HT IV Railways category has been retained.

The HT-II Commercial category will cater to all commercial category consumers availing supply at HT voltages including multiplexes and shopping malls, and all hospitals getting supply at HT voltages, irrespective of whether they are charitable, trust, Government owned and operated, etc. The tariff for such HT-II commercial category consumers has been determined higher than the tariff applicable for HT-I industrial, in line with the philosophy adopted for LT commercial consumers. Such categorisation already exists in other licence areas in the State, and is hence, being extended to TPC-D licence area also.



The Commission has created a new category, viz., LT IX, which will include all crematoriums and cremation and burial grounds, irrespective of whether these are electric crematoriums, or otherwise, and the tariffs have been specified at lower levels. However, this lower tariff will be applicable only to the portion catering to such activities, and in case part of the area is being used for other commercial purposes, then a separate meter will have to be provided for the same, and the consumption in this meter will be chargeable under LT-II Commercial rates.

The Commission has ensured that the HT tariffs are lower than the LT tariffs, as the cost of supply is lower than the cost of supply at lower voltages, due to the lower losses at higher voltages, and the lower network related costs since the electricity does not have to stepped down to lower voltages.

The Time of Day (ToD) tariffs will be applicable compulsorily to all HT consumer categories and LT – III consumers having TOD meters, as well as optionally available to LT – II category consumers, who have TOD meters. The TOD tariffs have been modified as follows:

- § The following time slots have been created, viz., (a) 2200 to 0600 hours, (b) 0600 to 0900 hours, (c) 0900 to 1200 hours, (d) 1200 to 1800 hours, and (e) 1800 to 2200 hours, to bring the ToD tariffs in line with those applicable in the rest of the State.
- § Additional peak hour tariff will be payable for consumption during the peak hours in the State, viz., 0900 to 1200 hours – morning peak, and 1800 to 2200 hours – evening peak, in the following manner:
  - 0900 to 1200 hours : Additional 0.50 Rs/kWh
  - 1800 to 2200 hours : Additional 1.00 Rs/kWh
- § For consumption during night off-peak hours, viz., 2200 to 0600 hours, a rebate of 0.75 Rs/kWh will be available
- § Neither additional tariff nor rebate will be applicable for consumption during 0600 to 0900 hours and 1200 to 1800 hours

Additional demand charges of Rs 20 per kVA per month would be chargeable for the stand by component, for CPPs, only if the actual demand recorded exceeds the Contract Demand.

The Billing Demand definition has been retained at the existing levels, i.e.,



Monthly Billing Demand will be the higher of the following:

- Actual Maximum Demand recorded in the month during 0600 hours to 2200 hours;
- 75% of the highest billing demand/Contract Demand, whichever is lower, recorded during the preceding eleven months;
- 50% of the Contract Demand.

The computation of average cost of supply (CoS) is given below:

**Table: Average Cost of Supply for FY 2008-09**

Sl.	Particulars	Excluding Expensive Power	Including Expensive Power
1	Total Revenue Requirement (Rs. Crore)	1393	1493
2	Total Sales (MU)	2942	2942
3	<b>Average Cost of Supply (Rs / kWh)</b>	<b>4.73</b>	<b>5.07</b>

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

Category	Average Cost of Supply (Rs./unit)	Average Billing Rate (Rs./unit)		Ratio of Average Billing Rate to Average Cost of Supply (%)		% increase / decrease in Tariff w.r.t Avg. CoS	% increase in tariff (%)
		Existing Tariff	Revised Tariff	Existing Tariff	Revised Tariff		
<b>LT Category</b>							
LT I - Residential	5.07	4.50	4.53	89%	89%	1%	0.6%
LT II - Commercial upto 20 kW		6.01	5.06	118%	100%	-19%	-15.8%
> 20 kW upto 50 kW		6.86	6.24	135%	123%	-12%	-9.1%
> 50 kW		6.86	6.24	135%	123%	-12%	-9.1%
LT III - LT Industrial upto 20 kW		5.39	4.24	106%	84%	-23%	-21.3%
LT-IV - LT Industrial >20 kW		5.49	5.33	108%	105%	-3%	-3.0%
<b>HT Category</b>							
HT I - Industrial, textiles & CPP	5.07	5.42	5.06	107%	100%	-7%	-6.5%
HT II - Commercial		6.09	5.90	120%	116%	-4%	-3.1%
HT III - Public & Government		4.27	4.49	84%	89%	4%	5.1%
HT IV Railways		3.60	4.19	71%	83%	12%	16.4%



The above Table clearly shows that the Commission has reduced the cross-subsidy levels for most consumer categories.

While the tariffs have been determined such that the revenue gap considered for the year is met entirely through the revision in tariffs, it is likely that the actual revenue earned by TPC-D may be higher or lower than that considered by the Commission. Any additional revenue/shortfall in revenue due to the impact not being assessed at this stage, will be trued up at the time of final truing up for FY 2008-09.

### 5.5 REVISED TARIFFS WITH EFFECT FROM JUNE 1, 2008

Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/ Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
	<b>LOW TENSION CATEGORIES</b>				
1	<b>LT I - Residential</b>				
	<i>Below Poverty Line (BPL)</i>	Rs. 3 per month	40		
	<i>Other Residential</i>				
	0-100 units	Rs. 30 per month	150	21	
	101-300 units	Rs. 50 per month <sup>\$\$</sup>	350		
	301 to 500 units		520		30
	Above 500 units (balance units)	Rs. 100 per month <sup>\$\$</sup>	650		50
2	<b>LT II - LT Commercial</b>				
(a)	0-20 kW	Rs. 150 per month	425	21	50
(b)	> 20 kW and < 50 kW	Rs. 150 per	520		50
(c)	> 50 kW	kVA per month	620		75
3	<b>LT III - LT Industrial below 20 kW load</b>	Rs. 150 per month	360	21	30
4	<b>LT IV - LT Industrial above 20 kW load</b>	Rs 150 per kVA per month	460	21	30
5	<b>LT V - Advertisement &amp; Hoardings,</b>	Rs. 200 per	1355	27	250



Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/ Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
	<b>incl. floodlights &amp; neon signs</b>	month			
6	<b>LT IX – Crematoriums and Burial Grounds</b>	Rs 200 per connection per month	200	21	30
	<i>TOD Tariffs (in addition to above base tariffs) – compulsory for LT II (b) and (c), and LT IV category, and optional for LT II (a) and LT III category</i>				
	<i>0600 hours to 0900 hours</i>		0		
	<i>0900 hours to 1200 hours</i>		50		
	<i>1200 hours to 1800 hours</i>		0		
	<i>1800 hours to 2200 hours</i>		100		
	<i>2200 hours to 0600 hours</i>		-75		
	<b>HIGH TENSION CATEGORIES</b>				
7	<b>HT I - Industries &amp; CPP</b>	Rs 150 per kVA per month	435	21	30
8	<b>HT II – Commercial</b>	Rs 150 per kVA per month	495	21	50
9	<b>HT III – Public &amp; Government</b>	Rs 150 per kVA per month	360	21	30
10	<b>HT IV - Railways</b>				
	<b>22/33 kV</b>	Rs 150 per kVA per month	365	21	30
	<b>100 kV</b>		347	21	30
	<i>TOD Tariffs (in addition to above base tariffs) for HT I, HT II, and HT III categories</i>				
	<i>0600 hours to 0900 hours</i>		0		
	<i>0900 hours to 1200 hours</i>		50		





Sl.	Consumer category & Consumption Slab	Tariffs			
		Fixed/ Demand Charge	Energy Charge (p/kWh)	Reliability Charge (p/kWh)	
				Standby Charge	Expensive Power Charges
	1200 hours to 1800 hours		0		
	1800 hours to 2200 hours		100		
	2200 hours to 0600 hours		-75		

**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.

**5.6 WHEELING CHARGES AND LOSS COMPENSATION**

The Commission, in the MYT Order for FY 2007-08 has approved wheeling charges at HT level as Rs 111 per kW per month and wheeling loss of 2.93% equivalent to overall distribution loss of TPC-D network. TPC-D, in its APR Petition, requested the Commission to continue with the same wheeling charges to be applicable for FY 2008-09.

The Commission, in the MYT Order had observed that separate accounting of network related costs and supply related costs is essential for un-bundling of cost and tariff components and forms 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 had directed TPC to submit voltage-wise segregated wire cost component of ARR during annual performance review.

Accordingly, the Commission asked TPC-D to clarify and justify its claim to continue with the same wheeling charges. In response to above query, TPC-D furnished its workings for wheeling charges as well as segregation of network related costs and retail supply related costs for FY 2007-08. The Commission has considered the same basis for determination of network related costs for the purpose of determination of wheeling charges for FY 2008-09.



Accordingly, approved network related annual revenue requirement for TPC-D amounts to Rs 76.82 Crore. 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 2008-09.

The total ARR of the Wires business as computed above has been apportioned to HT and LT voltages on the basis of voltage-wise Opening GFA as per submissions of TPC, 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 2008-09 works out to **Rs. 101 per kW per month** and that for consumers connected to **LT network** works out to **Rs 196 per kW per month**.

In addition, wheeling loss in kind shall be applicable for wheeling transactions at the rate of **2.4%** equivalent to assessed technical distribution loss for TPC-D network.

Approved Wheeling Charges and Wheeling loss at HT and LT level for FY 2008-09 is summarised in the following Table.

Item Description	Wheeling Charge (Rs/kW/month)	Wheeling Loss (%)
HT level	101	2.4%
LT level	196	2.4%

## 5.7 CROSS-SUBSIDY SURCHARGE

The cross-subsidy surcharge for eligible open access consumers will continue to be zero, in continuation of the Commission's decision in this regard in the previous Tariff Order.



## 5.8 INCENTIVES AND DISINCENTIVES

### Power Factor 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-

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

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:

$$\text{Load Factor} = \frac{\text{Consumption during the month in MU}}{\text{Maximum Consumption Possible during the month in MU}}$$

$$\text{Maximum consumption possible} = \text{Contract Demand (kVA)} \times \text{Actual Power Factor} \times (\text{Total no. of hrs during the month less planned load shedding hours*})$$



\* - 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 Applicability of Order

This Order for the second year of the first Control Period, i.e., for FY 2008-09, shall come into force with effect from June 1, 2008, and shall be applicable for the period from June 1, 2008 to March 31, 2009. The Commission will undertake the Annual Review of TPC-D performance during the last quarter of FY 2008-09 and determine the revision in revenue requirement for FY 2009-10, if required. TPC-D is directed to submit its Petition for Annual Review of its performance during the first half of FY 2008-09, as well as truing up of revenue and expenses for FY 2007-08 based on audited accounts, with detailed reasons for deviation in performance, latest by November 30, 2008.

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

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

Sd/-  
(S. B. Kulkarni)  
Member

Sd/-  
(A. Velayutham)  
Member

Sd/-  
(Dr. Pramod Deo)  
Chairman



(P B Patil)  
Secretary, MERC



**APPENDIX 1**

**List of Persons who attended the Technical Validation Session held on December 26, 2007**

<b>S.No</b>	<b>Name</b>
<b>TPC Officials</b>	
1	Shri S.Ramakrishnan
2	Shri T.N.Ramakrishnan
3	Shri V.H.Wagle
4	Shri S.V.Kher
5	Shri T.P.Mohan
6	Shri A.Sethi
7	Shri M.Ravindra
8	Shri P.K. Anvekar
9	Shri T.K. Bhaskaran
10	Shri S.N. Joshi
11	Shri V.H.Thakur
12	Shri R.L.Thakur
13	Shri C.A. Colaco
14	Shri D. Raina
15	Shri M. Dhempagan
16	Shri V.K. Choudhary
17	Shri H.D. Thakur
18	Shri A. K. Jain
19	Shri R.P.Deshpande
20	Shri A.P. Wankhede
<b>Others</b>	
21	Shri Anand Dhavale
22	Shri J. D. Kulkarni
23	Shri S Dixit
24	Dr. A. Pendse



<b>Consultants to Commission</b>	
25	Shri Suresh Gehani
26	Shri Palaniappan M
27	Shri S.R.Karkhanis
28	Shri S.D. Chaudhari
29	Shri P. Phokmare
30	Shri M.N. Bapat
31	Shri A.N. Vaze
32	Shri Anand Kulkarni
33	Shri Santosh Kumar Singh
34	Shri Rajkiran Bilolikar





## APPENDIX 2

### List of Objectors

S.No	Name of Person / Official	Designation	Institution
1	Shri Vijay Y. Tamhane	Secretary General	The Mill Owners' Association
2	Shri Shantanu Dixit	Member	Prayas Energy Group
3	Dr. Ashok Pendse		Mumbai Grahak Panchayat, Grahak Bhavan
4	Dr. S.L. Patil	Secretary General	Thane Belapur Ind. Association
5	Shri R.B. Goenka		Vidarbha Industries Association
6	Shri G.P. Misra		Misra Engineering Services
7	Shri Rajindar Singh	President	Western India Glass Mfrs. Association
8	Shri Ravindra Kumar Jain	ED (Trombay)	Rashtriya Chemicals & Fertilizers Ltd.
9	Shri K.V. Mehta	Executive Officer	The Association of Hospitals
10	Shri S.A. Puranik	Addl. G.M. (ES)	BES&T Undertaking
11	Shri S. N. Singh	Chief Electrical Dist. Engineer / CEE	Central Railway
12	Shri Mahesh I		Excel Electric Industries
13	Shri N. Ponrathnam		Vel Induction Hardenings
14	Shri Jude G. Tandon		Stafford Infrastructure & Mktg. Co
15	Shri Kapil Sharma		Reliance Energy Ltd.
16	Shri Navin M. Shetty		Sidhpura Co. op. Indl. Estate
17	Shri Bankim Mistry		Bharat Traders
18	Shri Rakshpal Abrol	President	Bombay Small Scale Ind. Association
19	Shri S.N. Bathia	Secretary	The Sidhpura Co. op. Indl. Estate Ltd.



**List of Objectors who attended the Public Hearing on February 13, 2007**

<b>S.No</b>	<b>Name of Person / Official</b>	<b>Designation</b>	<b>Institution</b>
1	Shri Vijay Y. Tamhane	Secretary General	The Mill owner's Association
2	Shri Rajindar Singh	President	Western India Glass Mfrs. Association
3	Shri Ravindra Kumar Jain	ED (Trombay)	Rashtriya Chemicals & Fertilizers Ltd.
4	Shri K.V. Mehta	Executive Officer	The Association of Hospitals
5	Shri S.A. Puranik	Addl. G.M. (ES)	BES&T Undertaking
6	Shri S. N. Singh	Chief Electrical Dist. Engineer / CEE	Central Railway
7	Shri Mahesh I		Excel Electric Industries
8	Shri N. Ponrathnam		Vel Induction Hardenings
9	Shri Jude G. Tandon		Stafford Infrastructure & Mktg. Co
10	Shri Kapil Sharma		Reliance Energy Ltd.
11	Shri Navin M. Shetty		Sidhpura Co. op. Indl. Estate
12	Shri Rakshpal Abrol	President	Bombay Small Scale Ind. Association
13	Shri S.N. Bathia	Secretary	The Sidhpura Co. op. Indl. Estate Ltd.

