# Delhi Electricity Regulatory Commission

Viniyamak Bhawan, 'C' Block, Shivalik, Malviya Nagar, New Delhi – 17

**Petition No. 52/2007**

**In the matter of**:

Petition for approval of Aggregate Revenue Requirement and Multi Year Tariff for Wheeling and Retail Supply of Electricity for BSES Yamuna Power Limited for the Control Period of F.Y. 2007-08 to F.Y. 2010-2011.

**AND**

**In the matter of:**

BSES Yamuna Power Limited
Through its: **CEO**
Shakti Kiran Building,
Karkardooma,
New Delhi-110092.

**BEFORE**

**DELHI ELECTRICITY REGULATORY COMMISSION**

**Coram:**

**Sh. Berjinder Singh, Chairman & Sh. K. Venugopal, Member.**

**ORDER**

DATE OF ORDER: 23RD FEBRUARY, 2008

The Commission having deliberated upon the Multi Year Tariff Petition filed for the Control Period of F.Y. 2008-2011, alongwith the Business Plan for the said Control Period, and also the subsequent filings by the Petitioner during the course of the proceedings, and having considered the responses received from stakeholders, in exercise of the power vested under the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007, read with the provisions of the Electricity Act, 2003, hereby pass this Order signed, dated and issued on 23rd day of February, 2008.

On the issue of disallowance of capital expenditure and assets capitalization in respect of the purchases made by the two BSES Distribution Companies from Reliance Energy Ltd. (REL), a group company of BRPL & BYPL, there is a difference of opinion between the Chairman and the Member. The divergent views of the Chairman and Member are contained in Annexures V and VI respectively. These Annexures and the findings/reasons recorded there, form an integral part of the Order. The Chairman has approved the disallowance mentioned in the Annexure V alongwith its consequential impacts, in exercise of his casting vote as there is a tie on this issue. The casting vote has been exercised in terms of Section 92(3) of the Electricity Act, 2003. It may be mentioned that on the remaining issues, there is no difference of opinion and the order has been passed unanimously.

The Petitioner shall take immediate steps to implement the Order.

This Order may be amended, reviewed or modified in accordance with the provisions of the Electricity Act, 2003 and the Regulations made thereunder.

| | |
|---|---|
| Sd/- | Sd/- |
| (K. Venugopal) | (Berjinder Singh) |
| Member | Chairman |

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## List of Abbreviations

| | |
|---|---|
| ARR | Aggregate Revenue Requirement |
| A&G | Administrative and General |
| AAD | Advance Against Depreciation |
| ABT | Availability Based Tariff |
| ACD | Advance Consumption Deposit |
| AMR | Automated Meter Reading |
| APDRP | Accelerated Power Development and Reforms Program |
| AT&C | Aggregate Technical and Commercial |
| ATE | Appellate Tribunal for Electricity |
| BEST | Birhanmumbai Electric Supply Test |
| BHEL | Bharat Heavy Electrical Limited |
| BIS | Bureau of Indian Standards |
| BPTA | Bulk Power Transmission Agreement |
| BRPL | BSES Rajdhani Power Limited |
| BST | Bulk Supply Tariff |
| BTPS | Badarpur Thermal Power Station |
| BYPL | BSES Yamuna Power Limited |
| CAGR | Compounded Annual Growth Rate |
| CCGT | Combined Cycle Gas Turbine |
| CEA | Central Electricity Authority |
| CERC | Central Electricity Regulatory Commission |
| CFL | Compact Fluorescent Lamp |
| CGHS | Cooperative Group Housing Societies |
| CGS | Central Generating Stations |
| CIC | Central Information Commission |
| CISF | Central Industrial Security Force |
| CoS | Cost of Supply |
| CPI | Consumer Price Index |
| CPRI | Central Power Research Institute |
| CPSUs | Central Power Sector Utilities |
| CSGS | Central Sector Generating Stations |
| CWIP | Capital Work in Progress |
| DA | Dearness Allowance |
| DA | Distribution Automation |
| DDA | Delhi Development Authority |
| DERA | Delhi Electricity Reform Act |
| DERC | Delhi Electricity Regulatory Commission |
| DIAL | Delhi International Airport Limited |
| DISCOMs | Distribution Companies (BRPL, BYPL & NDPL) |

| | |
|---|---|
| DMRC | Delhi Metro Rail Corporation |
| DPCL | Delhi Power Corporation Limited |
| DTL | Delhi Transco Limited |
| DVB | Delhi Vidyut Board |
| DVC | Damodar Valley Corporation |
| EHV | Extra High Voltage |
| EPS | Electric Power Survey |
| FBT | Fringe Benefit Tax |
| FPA | Fuel Price Adjustment |
| GFA | Gross Fixed Assets |
| GIS | Geographical Information System |
| GoNCTD | Government of National Capital Territory of Delhi |
| GTPS | Gas Turbine Power Station |
| HEP | Hydro Electric Power |
| HPSEB | Himachal Pradesh State Electricity Board |
| HRA | House Rent Allowance |
| HT | High Tension |
| HVDS | High Voltage Distribution System |
| IDC | Interest During Construction |
| IGI | Indira Gandhi International Airport |
| IPGCL | Indraprastha Power Generation Company Limited |
| JJ Cluster | Jhugghi Jhopadi Cluster |
| KSEB | Kerala State Electricity Board |
| LED | Light Emitting Diode |
| LIP | Large Industrial Power |
| LT | Low Tension |
| LVDS | Low Voltage Distribution System |
| MCD | Municipal Corporation of Delhi |
| MES | Military Engineering Service |
| MLHT | Mixed Load High Tension |
| MMC | Monthly Minimum Charge |
| MoP | Ministry of Power |
| MTNL | Mahanagar Telephone Nigam Limited |
| MU | Million Units |
| MYT | Multi Year Tariff |
| NABL | National Accreditation Board for Testing and Calibration of Laboratories |
| NAPS | Narora Atomic Power Station |
| NCT | National Capital Territory |
| NDLT | Non Domestic Lowe Tension |
| NDMC | New Delhi Municipal Corporation |

| | |
|---|---|
| NDPL | North Delhi Power Limited |
| NEP | National Electricity Policy |
| NGO | Non Government Organisation |
| NHPC | National Hydroelectric Power Corporation |
| NPCIL | Nuclear Power Corporation of India Limited |
| NRPC | Northern Regional Power Committee |
| NTI | Non Tariff Income |
| NTP | National Tariff Policy |
| O&M | Operations and Maintenance |
| OCFA | Opening Cost of Fixed Assets |
| PGCIL | Power Grid Corporation of India |
| PLF | Plant Load Factor |
| PLR | Prime Lending Rate |
| PPA | Power Purchase Agreement |
| PPCL | Pragati Power Corporation Limited |
| PTC | Power Trading Corporation |
| PWD | Public Works Department |
| R&M | Repair and Maintenance |
| RAPS | Rajasthan Atomic Power Station |
| REA | Regional Energy Account |
| RoCE | Return on Capital Employed |
| ROE | Return on Equity |
| RRB | Regulated Rate Base |
| RTI | Right to Information |
| RWA | Resident Welfare Associations |
| SBI | State Bank of India |
| SERC | State Electricity Regulatory Commission |
| SIP | Small Industrial Power |
| SJVNL | Satluj Jal Vidut Nigam Limited |
| SLDC | State Load Despatch Center |
| SPD | Single Point Delivery |
| SPUs | State Power Utilities |
| SVRS | Special Voluntary Retirement Scheme |
| THDC | Tehri Hydro Development Corporation |
| ToD | Time of Day |
| TPS | Thermal Power Station |
| UI | Unscheduled Interchange |
| WACC | Weighted Average Cost of Capital |
| WC | Working Capital |
| WPI | Wholesale Price Index |

# A1: INTRODUCTION

1.1 This Order relates to the petition filed by the BSES Yamuna Power Limited (hereinafter referred to as 'BYPL' or the 'Petitioner') on 3 October, 2007 for approval of Aggregate Revenue Requirement and for approval of proposed Wheeling and Retail Supply Tariffs for the Control Period (FY08 to FY11) using Multi Year Tariff Principles specified in the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 notified on 30 May, 2007 and also for true-up of respective years in the Policy Direction Period i.e. FY03 to FY07.

## Transfer Scheme

1.2 Prior to the year 2001, Delhi Vidyut Board (hereinafter referred to as 'DVB') was the sole entity handling all functions of generation, transmission and distribution of electricity in the National Capital Territory of Delhi (hereinafter referred to as 'Delhi'). The Government of National Capital Territory of Delhi (hereinafter referred to as 'GoNCTD'), however, notified the Delhi Electricity Reform (Transfer Scheme) Rules, 2001 (hereinafter referred to as 'Transfer Scheme') on 20 November, 2001 and provided for unbundling of DVB into different entities handling generation, transmission and distribution of electricity.

1.3 The Transfer Scheme provided for unbundling of DVB and the transfer of existing distribution assets of DVB in the areas of Central East and East of Delhi to BYPL (formerly known as Central East Delhi Distribution Company Limited) and transfer of the distribution assets in other areas of Delhi were transferred to two other distribution companies. All the three distribution companies shall hereinafter be collectively referred to as 'DISCOMs'.

## BSES Yamuna Power Limited (BYPL)

1.4 BYPL is a company incorporated under the Companies Act, 1956 and is entrusted with the business of distribution and retail supply of electricity in the specified area of Central East and East of Delhi in the NCT of Delhi (as specified in the Transfer Scheme).

1.5 Till 31 March, 2007, Delhi Transco Limited (DTL) was the sole entity responsible for the bulk procurement and bulk supply of power in Delhi. All the DISCOMs in Delhi had to purchase power from DTL at an approved Bulk Supply Tariff (BST) based on their capacity to pay. On 28 June, 2006, GoNCTD issued a set of Policy Directions for making power supply arrangements in Delhi from 1 April, 2007. These Policy Directions were issued under Section 108 of the Electricity Act 2003 (hereinafter referred to as the 'Act') and stated the following:

(a) With effect from 1 April, 2007, the responsibility for arranging supply of power in Delhi shall rest with the Distribution Companies in accordance with the provisions of the Electricity Act 2003 and also the National Electricity

Policy. The DERC may initiate all measures well in advance so that necessary arrangements are put in place.

(b) With effect from 1 April, 2007, the Delhi Transco Limited will be a Company engaged in only wheeling of power and also operate the State Load Dispatch Centre (SLDC) in accordance with the mandate of the GoNCTD.

(c) The DERC would have to make arrangements on the various existing Power Purchase Agreements (PPAs) between the present Distribution Companies in a manner to take care of different load profiles of the three DISCOMs, the New Delhi Municipal Council (NDMC) and also the Military Engineering Services (MES).

(d) While addressing the issue of transition to new arrangements in which the Distribution Companies would trade in power, specific Orders may be issued by DERC for ensuring that there is no disruption in the transmission network.

1.6 The business of Bulk Supply of electricity is no longer a part of the business of DTL, and the same is now vested with the distribution licensees (DISCOMs) of the State, w.e.f. 1 April, 2007.

1.7 The PPAs of the existing and upcoming projects were assigned to the DISCOMs; vide the Commission's Order dated March 31, 2007. In the same Order, the Commission ordered for introduction of Intra state ABT in Delhi w.e.f 1 April, 2007 with the following conditions:

(a) The UI rate should be the same as prescribed by CERC as on 31 March, 2007. All the five Distribution Companies/ Agencies as well as DTL shall comply with the various provisions of the IEGC/ Regulations issued by CERC in this regard.

(b) The SLDC shall act ass the nodal agency for the collection and distribution of UI charges as far as ABT is concerned.

(c) Scheduling be followed as is being practiced which is also generally in conformity with the procedure followed by NRLDC.

(d) STU/SLDC shall exercise necessary control in transmission/ load dispatch, system protection as specified in the Act, IEGC, Regulations of CERC, CEA, Rules etc.

(e) Any Violations of the Act, Rules, Regulations, IEGC etc. shall be brought to the notice of the Commission by STU/SLDC.

1.8 The Petitioner has filed its petition before the Delhi Electricity Regulatory Commission (hereinafter referred to as the 'DERC or the 'Commission') for determination of Wheeling and Retail Supply Tariffs for the Control Period FY08 to

FY11 under Section 62, 64 and 86 of the Electricity Act, 2003 , read with the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 (hereinafter referred to as the 'MYT Regulations, 2007').

1.9 This Tariff Order relates to the determination of Aggregate Revenue Requirement of the Petitioner for each year of the Control Period (FY08 – FY11) under the Multi Year Tariff regime and approval of Wheeling and the Retail Supply Tariffs for all consumer categories till 31 March 2009. Retail tariff shall be decided every year taking into account the adjustment on account of allowed variations in uncontrollable parameters.

1.10 The Commission has also reviewed the operational and financial performance of the Petitioner for the Policy Direction Period and has done the truing-up for various parameters. It has finalised this Tariff Order based on the review and analysis of the past records, information, submissions, Hon'ble Appellate Tribunal judgements, Hon'ble Supreme Court judgements, necessary clarifications submitted by the Petitioner and views expressed by various stakeholders.

## Delhi Electricity Regulatory Commission

1.11 The DERC was constituted by the GoNCTD on 3 March, 1999 and it became operational from 10 December, 1999.

1.12 The Commission's approach to regulation is driven by the Electricity Act 2003, the National Electricity Plan, the National Tariff Policy and the Delhi Electricity Reform Act 2000 (hereinafter referred to as 'DERA'). The Act mandates the Commission to take measures conducive to the development and management of the electricity industry in an efficient, economic and competitive manner.

### Functions of the Commission

1.13 The Commission derives its powers from DERA as well as from the Act. The major functions assigned to the Commission under the DERA are as follows:

(a) to determine the tariff for electricity, wholesale, bulk, grid or retail and for the use of the transmission facilities;

(b) to regulate power purchase, transmission, distribution, sale and supply;

(c) to promote competition, efficiency and economy in the activities of the electricity industry in the National Capital Territory of Delhi;

(d) to aid and advise the Government on power policy;

(e) to collect and publish data and forecasts;

(f) to regulate the assets, properties and interest in properties concerned or related to the electricity industry in the National Capital Territory of Delhi including the conditions governing entry into, and exit from the electricity industry in such manner as to safeguard the public interest;

(g) to issue licenses for transmission, bulk supply, distribution or supply of electricity;

(h) to regulate the working of the licensees; and

(i) to adjudicate upon the disputes and differences between licensees.

1.14 The functions assigned to the Commission under the Act are as follows:

"Section 86 (1) The State Commission shall discharge the following functions, namely: -

(a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c) facilitate intra-state transmission and wheeling of electricity;

(d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

(e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

(f) adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration;

(g) levy fee for the purposes of this Act;

(h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;

(i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

(j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;

(k) discharge such other functions as may be assigned to it under this Act.

(2) The State Commission shall advise the State Government on all or any of the following matters, namely: -.

(i) promotion of competition, efficiency and economy in activities of the electricity industry;

(ii) promotion of investment in electricity industry;

(iii) reorganisation and restructuring of electricity industry in the State;

(iv) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government."

1.15 As part of the tariff related provisions of the Act, the State Electricity Regulatory Commission (SERC) has to be guided by the National Electricity Policy, National Tariff Policy and the National Electricity Plan.

**Tariff Orders Issued by the Commission**

1.16 After its inception, the Commission has issued an Order on "Rationalisation of Tariff for DVB" on 16 January, 2001. The Commission has also issued Orders on the Aggregate Revenue Requirement (ARR) for FY02 and Tariff Determination Principles for DVB for the period FY03 to FY06 on 23 May, 2001.

1.17 The Commission issued its first Tariff Order after the notification of the Transfer Scheme and Policy Directions, on 22 February, 2002 based on a Joint Petition for determination of the Bulk Supply Tariff (BST) and opening loss levels for the distribution companies. The Commission determined the BST applicable for sale of power from DTL to the DISCOMs, on the basis of the paying capacity of each distribution company.

1.18 After the Transfer Scheme of DVB was made effective (1 July, 2002), the Commission issued a Tariff Order on 26.June, 2003 for approval of ARR of BSES Yamuna Limited and determination of Retail Supply Tariffs to be charged to different consumer categories for FY03 (9 months) and FY04. This Order adopted the new principles laid down in the Policy Directions issued by the GoNCTD for determination of Retail Supply tariffs for all the DISCOMs The key highlights of the new principles were:

(a) AT&C losses for the purpose of computation of tariff shall be based on the values of reduction in AT&C loss each year for the years FY03, FY04, FY05, FY06 and FY07 indicated in the bid submitted by the Petitioner and as finally accepted by the Government, over the opening level of AT&C loss approved by DERC for each distribution company in the Tariff Order dated 22 February, 2002.

(b) The Tariffs shall be determined such that the distribution licensees earn, at least, 16% return on the issued and paid up capital and free reserves provided that such share capital and free reserves have been invested into fixed or any other assets, which have been put into beneficial use for the purpose of electricity distribution and retail supply and provided further that investment of such share capital and free reserves has the approval of the Commission.

(c) Retail Tariffs for the DISCOMs shall be identical till the end of FY07, i.e., consumers of a particular category shall pay the same retail tariff irrespective of their geographical location.

(d) Any over-achievement or under-achievement with respect to reducing AT&C losses shall be treated as per the methodology specified in the Para 2 of Policy Directions.

1.19 The Commission has subsequently issued Tariff Orders for BYPL for FY05, FY06 and FY07 on 9 June, 2004, 7 July, 2005 and 22 September, 2006 respectively. The key highlight of these Orders was approval of BST based on the principle of "ability to pay" to maintain uniform retail tariffs across all DISCOMs.

## The Coordination Forum

1.20 The Commission approached the GoNCTD on 1 April, 2005 to constitute the Coordination Forum consisting of the Chairperson of the State Commission and the Members thereof, representatives of the generating companies, transmission licensees, and distribution licensees engaged in generation, transmission and distribution in accordance with Section 166(4) of the Electricity Act, 2003.

1.21 Accordingly, the GoNCTD vide Notification No. F.11/36/2005/Power/1789 dated 16 June 2005 constituted the Coordination Forum, comprising of Chairperson and Members of DERC, CMD of DTL, Managing Director of IPGCL/PPCL, CEOs of NDPL, BYPL and BRPL with Secretary, DERC as the Member Secretary. Since the Committee constituted did not include NDMC and MES, who also distribute power in Delhi, the Commission had decided to invite them for all the meetings. The Commission has since held 16 meetings on the following dates:

**Table 1: Meetings of Coordination Forum**

| Meeting | Date |
|---|---|
| 1st Meeting | August 29, 2005 |
| 2nd Meeting | October 25, 2005 |
| 3rd Meeting | December 20, 2005 |
| 4th Meeting | January 20, 2006 |
| 5th Meeting | March 1, 2006 |
| 6th Meeting | April 17, 2006 |
| 7th Meeting | May 15, 2006 |
| 8th Meeting | June 14, 2006 |
| 9th Meeting | August 23, 2006 |
| 10th Meeting | September 28, 2006 |
| 11th Meeting | November 22, 2006 |
| 12th Meeting | January 25, 2007 |
| 13th Meeting | March 15, 2007 |
| 14th Meeting | April 16, 2007 |
| 15th Meeting | October 23, 2007 |
| 16th Meeting | November 23, 2007 |

1.22 In the above referred meetings, issues relating to arranging power to meet the demand of Delhi up to FY11 as well as other issues of common interests to ensure overall development of the power sector in Delhi were discussed. The Commission has through the Coordination Forum facilitated signing of PPAs for capacity of around 3600 MW which would provide power to Delhi with gradual commissioning of generating units commencing henceforth upto FY10. The details in this regard are furnished below:

**Table 2: Arrangement of power for Delhi on Long Term Basis**

| S. No. | Name of the Project | Capacity Allocated to Delhi |
|---|---|---|
| 1 | Koldam Hydroelectric project of NTPC | 83 MW |
| 2 | Tehri Hydroelectric project of THDC | 95 MW |
| 3 | Dhauliganga HEP of NHPC | 42 MW |
| 4 | Sewa-III HEP of NHPC | 10 MW |
| 5 | Unchahar-III TPS of NTPC | 24 MW |
| 6 | RAPP Unit 5 & 6 of NPC | 50 MW |
| 7 | Parbati-II HEP of NHPC | 65 MW |
| 8 | Bawana – CCGT Plant of IPGCL | 1000 MW |
| 9 | Pragati Power-II Project-II of PPCL | 330 MW |
| 10 | NCRTPP Dadri Extension of NTPC | 880 MW |
| 11 | Tehri Pumped Storage Power Plant of THDC | 600 MW |
| 12 | Kahalgaon Stage-II of NTPC | 95 MW |
| 13 | Barh TPS of NTPC | 155 MW |

| S. No. | Name of the Project | Capacity Allocated to Delhi |
|---|---|---|
| 14 | North Karanpura TPS of NTPC | 157 MW |
| 15 | Koteshwar HEP of THDC | 40 MW |
| 16 | Dulhasti HEP of NHPC | 34 MW |
| | **Total** | **3660 MW** |

1.23 All the above projects are being developed by various Central Power Sector Utilities (CPSUs)/ State Power Utilities (SPUs) and accordingly their tariff would be regulated by the Central Electricity Regulatory Commission (CERC)/ DERC. Further, Delhi has been allocated 200 MW power from Tala HEP. Besides the above projects from which power has been tied up, the Coordination Forum had also discussed projects like Combined Cycle Gas Project in Tripura, setting up of 2000 MW plant by Delhi in Chattisgarh etc. but no final decision could be arrived at in view of the projects being at the conceptual stage.

1.24 Further, a share of 750 MW from the 1500 MW joint venture project being set up at Jhajjar (Haryana) by M/s. Aravali Power Co. with Haryana, Delhi & NTPC as partners, has been agreed to in the Coordination Forum meetings. Apart from this, the Coordination Forum has authorised TRANSCO to enter into long term agreement with DVC for procurement of power with the quantum of 100 MW from December 2006 to September 2007 and gradually going upto 2500 MW on round the clock basis from DVC for a period of 25 years from the commissioning of the respective new generating units. Apart from this PPAs have been signed for various upcoming projects of NHPC as well. Delhi is allocated about 500 MW of power from one of the Ultra Mega projects. The total tie up of additional power aggregates to about 7600 MW. This tie-up of additional capacity together with system augmentation/up-gradation would significantly improve the power availability in Delhi in future.

1.25 The Commission has also worked through the Coordination Forum to remove bottlenecks in the execution of various major schemes such as setting up of 2 nos. 220 kV GIS sub-stations at Electric Lane and Trauma Centre/AIIMS in NDMC area and up gradation of Ridge Valley Sub-station to 220 KV GIS type. The issue of execution of dedicated transmission system for evacuation of power to Delhi from the upcoming projects at Dadri (NTPC) and Jhajjar (Aravali Power Co.) has been discussed in the Coordination Forum meeting held on 23 November, 2007. Considering the criticality of the power from these Projects for meeting the power demand of Delhi specifically at the time of Commonwealth Games scheduled for October 2010, the Commission has taken up the matter with GoNCTD as well as Central Government/Ministry of Power for necessary intervention in the matter. It is understood that the issue is now resolved and the associated transmission lines for Dadri NCRTPP extension and Jhajjhar TPS would be built by NTPC.

1.26 The Coordination Forum in its meeting held on 25 October, 2005 decided that DISCOMs will jointly move a common proposal for seeking bids for procurement of power on short-term as well as long term basis. The document for short/medium term power procurement was received in the Commission by the end of March 2006, and was subsequently discussed in various Coordination Forum meetings. After detailed deliberations on various issues involved in the procurement process and approval of the Commission to the bid document for short/medium term power procurement, the DISCOMs were accordingly authorized in August, 2006 to invite bids. This exercise is in compliance with the National Electricity Policy/Tariff Policy which mandates the distribution companies to procure power through competitive bidding. The approval of RFQ/RFP documents for procurement of power by the DISCOMs on long term basis is currently underway.

## Multi Year Tariff Framework

1.27 The distribution part of the electricity sector in Delhi was privatized with effect from 1 July, 2002 and tariffs in Delhi were governed by the Policy Directions issued by GoNCTD, vide its notification of 22 November, 2001 and as amended on 31 May, 2002.

1.28 Although the Act was passed in 2003, it ensured that provisions of the enactments specified in the DERA (Delhi Act No. 2 of 2001), not inconsistent with the provisions of the Act remained applicable to Delhi, as it was part of the Schedule referred to in Section 185 of the Act.

1.29 As the validity of these notifications ended on 31 March, 2007, the Commission decided to adopt Multi Year Tariff (MYT) principles for determination of tariffs, in line with the provisions in Section 61 of the Act.

1.30 The Commission designed the MYT framework in the State and set long term performance targets for entities engaged in generation, transmission and distribution. Simultaneously, the Commission segregated costs into two categories; first which are expected to be easily controlled by the entity and a second category over which an entity does not have significant control. The Commission would set targets for each year of the Control Period for the items or parameters that are deemed to be “controllable” and which shall include: Operation and Maintenance (O&M) Expenses, AT&C losses, Quality of Supply etc.

1.31 Any financial losses arising out of the under-performance with respect to the targets specified by the Commission for the “controllable” parameters shall be to the Licensee’s account. The Commission in the subsequent sections has discussed the circumstances under which the controllable parameters shall be trued up during the Control Period.

1.32 The MYT framework is also designed to provide predictability and reduce regulatory risk. This can be achieved by approval of a detailed capital investment plan for each entity, considering the expected network expansion and load growth during the Control Period. The longer time span enables the distribution company to propose its investment plan with details on the possible sources of financing and the corresponding capitalization schedule for each investment.

### Multi Year Tariff Regulations

1.33 The Commission issued a Consultative Paper and Draft MYT Regulations for Generation, Transmission and Distribution to all concerned stakeholders, including the Government, Generation Companies, Transmission and Distribution Licensees, consumers. These documents detailed the principles, approach and methodology to be adopted for the determination of tariff for various entities under the MYT framework and also highlighted the various issues which were to be discussed and finalized for successful implementation of the MYT principles.

1.34 These Draft Regulations and MYT Consultative Paper were issued on 11 October, 2006 and a notice to this effect was published in leading newspapers seeking comments from public and stakeholders.

1.35 The Commission issued regulations vide notification dated 30 May, 2007 specifying Terms and Conditions for Determination of Tariff for Generation, Transmission and Distribution of electricity under the Multi Year Tariff (MYT) framework for the period FY08 – FY11 after going through the public hearing process.

## Filing of Tariff Petition for the Control Period

### Filing of Petition

1.36 The Petitioner (BYPL) filed its petition for approval of Aggregate Revenue Requirement and Determination of Wheeling and Retail Supply Tariff for the Control Period, on 3 October 2007.

### Acceptance of Petition

1.37 The Commission conducted a preliminary analysis of the petition submitted by the Petitioner and observed the following discrepancies in the petition:

"

*(a) Calculations regarding AT&C losses, O&M Expenses, RoCE, etc., are not in accordance with the provisions made in the MYT Regulations, 2007.*

*(b) The accumulated depreciation and the Capital Work in Progress (CWIP) have not been excluded while calculating Regulated Rate Base (RRB) as provided in the MYT Regulations, 2007.*

*(c) Allocation statement to apportion costs and revenues to respective businesses of wheeling and retail supply has not been duly approved by the Board of Directors as required under Clause 4.4 of MYT Regulations, 2007.*

*(d) The allocation statement specifying the cost of power purchase that is attributable to trading activity of the BYPL has not been made as per Clause 5.30 of the MYT Regulations, 2007.*

(e) *Power purchase cost has been fixed without taking into consideration the estimated revenues through bilateral exchanges and UI.*

(f) *The baselines and performance trajectory for all quality parameters has not been proposed as specified in the Delhi Electricity Supply Code and Performance Standards Regulations, 2007 and as per sub-Clause (d) and (h) of Clause 8.3 of the MYT Regulations, 2007.*

(g) *The tariff proposed for each consumer category, slab wise and voltage wise is not duly supported by a cost of service model, allocating the cost of business to each category of the consumer based on voltage wise cost and losses.*

(h) *The business plan filing in general and the capital investment plan thereof in particular are not as per Clause 8.3 of the MYT Regulations, 2007."*

1.38 The Commission conducted a hearing on the admission of the petition on 22 October, 2007 for discussing the above mentioned issues with Petitioner. Shri. Arun Kanchan, CEO, BYPL was present for the hearing. The Commission after hearing the arguments of the Petitioner on the above mentioned points issued an Order dated 26 October 2007 for admission of the petition, and gave the following directions to the Petitioner:

"

(a) *All the calculations regarding AT&C Loss Level, O&M Expenses, RoCE, etc. shall be worked out in accordance with the provisions given in the MYT Regulations, 2007.*

(b) *The calculations for Regulated Rate Base (RRB) shall be arrived at using provisions given in the MYT Regulations, 2007 after excluding accumulated depreciation and the CWIP.*

(c) *An allocation statement to apportion cost and revenue of respective businesses shall be duly approved by the Board of Directors of the Licensee as per Clause 4.4 of the MYT Regulations, 2007.*

(d) *The power purchase cost shall take into account apart from other parameters, the estimate of revenues received through bilateral exchanges and UI.*

(e) *To submit for each consumer category, slab wise and voltage wise tariff in accordance with Clause 8.7 of the MYT Regulations, 2007, duly supported by cost of service model, allocating the cost of business to each category of consumer as well as subsidy, if any, being granted by GoNCTD.*

(f) *The Petitioner/Licensee shall propose the baseline performance trajectory for all quality parameters as specified by Delhi Electricity Supply Code Performance Standard Regulations, 2007 and as per Clause 7.2 of MYT Regulations, 2007.*

(g) *The Petitioner/Licensee is directed to take up the issue of past period true-up expenses with the GoNCTD. The Petitioner/Licensee is further directed to propose tariff structure for recovery of aforesaid expenses in case GoNCTD is not agreeable to provide these expenses in the form of government support and same needs to be recovered through tariff.*

(h) *The Commission has observed that prayer Clause of the Petitioner/Licensee is vague. The Commission directed the Petitioner to have specific reference to the prayer and also the Orders of Appellate Tribunal, High Court and Supreme Court etc on which the Licensee intends to rely upon. The Licensee is further directed to file a copy of such Orders on which they have placed reliance.*

(i) *The Commission also directed that as the issue of consumer security deposit is not related to the Multi Year Tariff Determination and has already been disposed off by the Commission by way of a speaking Order, this issue should not be made a part of this petition. The representative of the Petitioner present during the hearing, agreed to withdraw this issue and take it up separately before an appropriate forum."*

1.39 The Commission highlighted during the hearing that there have been deviations in the submissions made by the Petitioner on the AT&C loss level trajectory. The MYT Regulations, 2007 specify AT&C loss level of 22% at the end of the Control Period. The Petitioner had proposed the loss reduction trajectory on the basis of Abraham Committee report i.e. 2.00% each year during the Control Period, which translates to AT&C loss level of 27.29% at end of the Control Period. The Commission heard the Petitioner on this issue and feels that the reasons given by the Petitioner for deviating from the MYT Regulations, 2007 were not convincing. The MYT Regulations, 2007 have statutory binding force and the ARR petition is required to be in accordance with the said Regulations.

1.40 In view of the above, the Petitioner was directed to submit the requisite information / details within seven days of issue of the Admission Order along with the draft public notice. A copy of the Admission Order dated 26 October 2007 is attached in Annexure I of this Order.

1.41 The Petitioner in response to the Order dated 26 October, 2007 made resubmissions on 5 November, 2007. The Commission observed that the Petitioner had not complied with many of the directions given in the Admission Order dated 26 October, 2007.

**Interaction with the Petitioner**

1.42 The Commission interacted regularly with the Petitioner, in both written and oral form, to seek clarifications and justification on various issues essential for the analysis of the petition.

1.43 The Commission conducted multiple validation sessions with the Petitioner between October 2007 and February 2008, during which the discrepancies and additional information required by the Commission were highlighted. The Petitioner submitted its replies to the list of queries of the Commission raised in these sessions.

1.44 As part of the discussions, the Commission provided an opportunity to the Petitioner to validate the data submitted for true-up and provide documentary evidence to substantiate its claims regarding various submissions. The Commission and the Petitioner also discussed key issues related to the petition, which included details of capital expenditure and capitalisation plan, allocation of expenses into Wheeling and Retail Supply Business, AT&C loss reduction trajectory, liability towards SVRS expenditure, etc.

1.45 The Petitioner submitted its replies, as shown below, in response to the queries raised by the Commission in the validation sessions, which have been considered for approval of the Aggregate Revenue Requirement (ARR) of the Petitioner.

**Table 3: List of Correspondence with BYPL**

| S. No. | Date | Letter No. | Subject |
|---|---|---|---|
| 1 | 01.10.2007 | CEO(BYPL)/07-08/22/308 | Business Act Plan for FY 2007-08 to 2010-11. |
| 2 | 01.10.2007 | - | Submission of the MYT petition for distribution (wheeling and retail supply) business. |
| 3 | 10.10.2007 | RCM/07-08/691 | ARR Petition for MYT and Tariff Determination |
| 4 | 24.10.2007 | VP-BYPL/22/344 | MYT petition filing for distribution (wheeling and retail supply) Business for FY 2007-08 to FY 2010-2011 dated 1.10.2007 |
| 5 | 05.11.2007 | RCM/07-08/686A | Order dated 26.10.2007 passed by the Hon'ble Commission admitting the ARR petition. |
| 6 | 05.11.2007 | RCM/07-08/700 | ARR petition for MYT & Tariff Determination. |
| 7 | 05.11.2007 | RCM/07-08/701 | Order dated 26.10.2007 passed by the Hon'ble Commission admitting the ARR petition. |
| 8 | 23.11.2007 | RCM/07-08/713 | Public Notice for Multi Year Tariff Petition. |
| 9 | 23.11.2007 | VP(B)/07-08/22/405 | Past DVB Arrears paid to the Holding Company |
| 10 | 28.11.2007 | CEO/BYPL/2007-08 | Order dated 26.10.2007 passed by the Hon'ble Commission |
| 11 | 12.12.2007 | VP/BYPL/07-08/22/422 | Petition for approval of ARR and determination of Tariff for MYT Control Period (FY 2008 – 2011). |
| 12 | 19.12.2007 | RCM/07-08/BYPL/820 | Submission of complete copy of income Tax returns for the period of FY 2005-06 and 2006-07. |
| 13 | 19.12.2007 | VP(BYPL)/07-08/22/523 | ARR petition for MYT and Tariff determination (Form 2.1A) |
| 14 | 20.12.2007 | RCM/07-08/828 | ARR petition for MYT and Tariff determination. |
| 15 | 20.12.2007 | COO(BYPL)/22/526 | Note on expenditure in respect of renovation of 2nd floor of Shakti Kiran Building at Karkardooma. |
| 16 | 20.12.2007 | RCM/07-08/826 | ARR petition for MYT and Tariff determination. |
| 17 | 20.12.2007 | RCM/07-08/BYPL/831 | ARR petition for MYT and Tariff determination. |

| S. No. | Date | Letter No. | Subject |
|---|---|---|---|
| 18 | 20.12.2007 | RCM/07-08/824 | Calculation of Inter-state Transmission charges, RCDC and ULDC charges. |
| 19 | 24.12.2007 | VP/BSES/22/529 | Submission of responses against MYT. |
| 20 | 24.12.2007 | RCM/07-08/BYPL | ARR petition for MYT and Tariff determination. |
| 21 | 26.12.2007 | RCM/07-08/846 | ARR petition for MYT and Tariff determination. |
| 22 | 26.12.2007 | VP/BYPL/22/534 | ARR petition for MYT and Tariff determination (Form 2.1A) |
| 23 | 15.01.2008 | RCM/07-08/1024 | ARR petition for MYT and Tariff determination. |
| 24 | 15.01.2008 | RCM/07-08/1021 | ARR petition for MYT and Tariff determination. |
| 25 | 29.01.2008 | RCM/07-08/1032 | ARR and MYT petition for years 2007-2011. |
| 26 | 28.01.2008 | RCM/07-08/1034 | Petition filed under MYT Regulations. |
| 27 | 07.02.2008 | RCM/07-08/1042 | ARR and MYT petition for years 2007-2011. |
| 28 | 07.02.2008 | RCM/07-08/1044 | ARR petition for MYT and Tariff determination. |
| 29 | 08.02.2008 | RCM/07-08/1047 | MYT petition |
| 30 | 12.02.2008 | RCM/07-08/1050 | Approval of expenses for FY 2002-03 to FY 2006-07. |
| 31 | 12.02.2008 | RCM/06-07/1051 | SVRS- ARR and MYT petition for years 2007-2011. |
| 32 | 12.02.2008 | RCM/06-07/1054 | ARR and MYT Petition for years 2007-2011. |
| 33 | 12.02.2008 | RCM/07-08/1056 | ARR petition for MYT and Tariff determination. |
| 34 | 18.02.2008 | RCM/06-07/1066 | Approval of Expenses |
| 35 | 16.02.2008 | RCM/07-08/1067 | ARR petition for MYT and Tariff determination. |
| 36 | 18.02.2008 | RCM/07-08/1072 | SVRS- ARR petition for MYT and Tariff determination. |
| 37 | 18.02.2008 | RCM/07-08/1074 | Prior period expenses - ARR petition for MYT and Tariff determination |
| 38 | 19.02.2008 | RCM/06-07/1101 | Employee Expenses – ARR petition for MYT and Tariff Determination |
| 39 | 21.02.2008 | Fax | ARR petition for MYT and Tariff Determination |
| 40 | 21.02.2008 | RCM/07-08/1103 | ARR petition for MYT and Tariff Determination |

## Public Hearing

1.46 The Petitioner published a Public Notice indicating the salient features of its petition, and inviting responses from the consumers and other stakeholders, in the following newspapers with their respective date of publication:

(a) Indian Express (English) – 20 November 2007

(b) Asian Age (English) – 20 November 2007

(c) Times of India (English) – 21 November 2007

(d) Jan Satta (Hindi) – 20 November 2007

(e) Navbharat Times (Hindi) – 22 November 2007

(f) Daily Milap (Urdu) – 23 November 2007

1.47 Copies of the Public Notice in English, Hindi and Urdu are enclosed in Annexure II to this Order. Detailed copy of the petitions were also made available for purchase from the respective head-office of the Petitioner on any working day from 20 November, 2007 onwards, between 11 A.M. and 4 P.M. on payment of Rs. 100/-. The complete copy of the petition was also put up on the website of the Commission, as well as that of the Petitioner requesting for comments of the stakeholders, thereon.

1.48 The Commission also published a Public Notice highlighting the petition submitted by the DISCOMs The Public Notice was published in the following newspapers on 22 November, 2007 inviting comments from stakeholders on the petitions filed by the DISCOMs:

(a) Times of India (English)

(b) Hindustan Times (English)

(c) Dainik Jagran (Hindi)

(d) Hamara Maqsad (Urdu)

(e) Daily Educator (Punjabi)

1.49 The above Public Notice inter-alia also invited suggestions and objections from the public on the following issues:

(a) Implementation of Time of the Day Metering on pilot basis

(b) Cross Subsidization in the tariff structure

(c) Whether to have Uniform / Differential tariffs

(d) Power purchases from renewable sources

(e) Uniform tariff for Delhi Government offices

1.50 Copies of the above Public Notice in English, Hindi, Punjabi and Urdu are attached as Annexure III of this Order. The interested parties/stakeholders were asked to file their objections and suggestions on the petition by 10 December, 2007. On request from the stakeholders, the Commission revised the last date of filing objections and suggestions to 20 December, 2007 and subsequently to 31 December, 2007, which was notified through the following newspapers on 8 December, 2007 and 21 December, 2007 respectively.

(a) Times of India (English)

(b) Hindustan Times (English)

(c) Dainik Jagran (Hindi)

(d) Hamara Maqsad (Urdu)

(e) Daily Educator (Punjabi)

1.51 The Petitioner/ Commission received objections from 276 respondents, some of which were received after the deadline for receipt of comments. The list of the stakeholders who responded to the public notice on ARR and MYT petition and those who attended the public hearing is provided in Annexure IV. All parties, who had filed their objections /suggestions, were informed about the date, time and venue for presenting their case in the public hearing. The Petitioner replied to the comments received and submitted a copy of its replies to the Commission.

1.52 In the past, the Commission had received requests that the Commission may extend help to the consumers in understanding the ARR petitions and also help them in filing their comments in this regard. The Commission had considered the request on merits and accordingly for this year the services of three officers of the Commission were made available to the consumers to extend necessary assistance. The services of the officers of Commission were available to all the interested stakeholders for discussion on ARR petition and related matters between 3 P.M. to 5 P.M. on all working days from 22 November, 2007 to 31 December, 2007. This was duly highlighted in the Public Notices brought out by the Commission on 22 November, 2007.

1.53 The public hearing was held at the Commission's Court Room on the following dates, in 8 sessions, to discuss the issues related to the petition filed by the Petitioner for determination of Wheeling and Retail Supply Tariff for the Control Period, and for final truing-up up to FY07 and other prior period expenses.

**Table 4: Schedule for Public Hearing**

| S No | Date | Time | Category |
|---|---|---|---|
| 1 | 8 January 2008 | Session 1: 9:30 AM – 1:00 PM<br>Session 2: 2:00 PM – 5:00 PM | Respondents from Domestic and Residential associations |
| 2 | 9 January 2008 | Session 1: 10:00 AM – 1:00 PM<br>Session 2: 2:00 PM – 5:00 PM | Respondents from Domestic and Residential associations |
| 3 | 10 January 2008 | Session 1: 10:00 AM – 1:00 PM<br>Session 2: 2:00 PM – 5:00 PM | Respondents from Industrial associations, Government bodies and NGOs |
| 4 | 11 January 2008 | Session 1: 10:00 AM – 1:00 PM<br>Session 2: 2:00 PM – 5:00 PM | Respondents from Domestic and Residential associations |

1.54 The issues and concerns voiced by various objectors have been carefully examined by the Commission. The major issues discussed during the public hearing, through the objections raised by the respondents and the observations made by the Commission, have been summarized in Chapter A2.

## Periodic Reviews

1.55 The Petitioner is directed to submit the revised Aggregate Revenue Requirement and corresponding tariff adjustments in accordance with the Clause 11.3 of the MYT Regulations, 2007.

## Layout of the Order

1.56 This Order is organised into five chapters:

(a) The first chapter provides a historical background including information regarding the Commission, an overview of the MYT framework and details of the tariff setting process;

(b) the second chapter provides a detailed account of the Public Hearing process, including the objections raised by various stakeholders, Petitioner's responses and the Commission's views on the responses;

(c) the third chapter details the process of true-up of the previous years;

(d) the fourth chapter analyses the Aggregate Revenue Requirement for Wheeling and Retail Supply Business for the Control Period; and

(e) the fifth chapter details the possible options for determination of Wheeling and Retail Supply Tariff for all consumer categories, and the approach adopted by the Commission.

1.57 This Order contains following Annexures, which are an integral part of the Tariff Order:

(a) Annexure I – Admission Order dated 26 October, 2007;

(b) Annexure II – Copies of Public Notices published by the DISCOMs;

(c) Annexure III – Copies of Public Notice published by the Commission;

(d) Annexure IV – List of Respondents;

(e) Annexure V – Findings of the Commission regarding the purchases made by the BSES Rajdhani Power Limited (BRPL) and BSES Yamuna Power Limited (BYPL) from group company – Reliance Energy Limited (REL)

(f) Annexure VI – Divergent view of the Member, DERC on the methodology adopted for disallowance of capital investment made by BSES companies.

# A2: RESPONSES FROM STAKEHOLDERS

## Introduction

2.1 In the tariff determination process for the Control Period, the Commission had invited comments and suggestions from the various stake holders by advertising in National newspapers namely, Times of India (English), Hindustan Times (English), Dainik Jagran (Hindi), Hamara Maqsad (Urdu) and Daily Educator (Punjabi) on 22 November 2007. The stakeholders were requested to send their comments by 10 December 2007. On request from the stakeholders, the last date for sending comments was extended to 31 December 2007. The Petitioner (BYPL) was also directed by the Commission to solicit comments, suggestions and objections from general public and make available copies of its MYT petition to them. Accordingly, the Petitioner issued a public notice in Indian Express (English) dated 20 November 2007, Asian Age (English) dated 20 November, 2007, Times of India (English) dated 21 November, 2007, Jansatta (Hindi) dated 20 November, 2007, Navbharat Times (Hindi) dated 22 November, 2007 and Daily Milap (Urdu) dated 23 November, 2007.

2.2 The public hearing is a platform to understand the problems and concerns of various stakeholders. The Commission has encouraged transparent and participative approach in the hearings, which are used to obtain necessary inputs required for tariff determination.

2.3 The Petitioner submitted its responses to various comments/ objections of the stakeholders and a public hearing was held in the Commission's office from 8 January to 11 January, 2008, wherein respondents put forth their comments and objections before the Commission in the presence of the Petitioner. The Petitioner was given an opportunity to respond to the views and objections of the stakeholders.

2.4 The Commission has taken note of the various objections made and appreciates the keen participation in the process by various stakeholders to provide vital feedback to the Commission on various issues.

2.5 The major comments/ objections raised by various stakeholders in response to the MYT petition submitted, the replies given by the Petitioner and the views of the Commission have been summarized under various categories as below.

## Concessional Tariff for Senior Citizens, Places of Worship and Educational Institutions etc. run by NGOs on land given by MCD/GoNCTD

### Objections

2.6 The stakeholders have requested for concessional tariff in case of senior citizens, places of worship and educational institutions run by NGOs on land given by MCD/GoNCTD. Some of the stakeholders have submitted that all non-profit organizations and charitable services of hospitals, rendering service for the under-privileged be charged under the category of domestic tariff.

2.7 Some stakeholders have, however, suggested that concessional tariff to various categories be done away with.

### Petitioner's Submission

2.8 The Petitioner has submitted that the determination of tariff to be charged from a category of consumers is the prerogative of the Commission, in terms of the provisions of the Electricity Act, 2003.

### Commission's View

2.9 Regarding concessional tariff for senior citizens, the Commission reiterates that it is not practical to have a separate category with lower tariffs for senior citizens, considering the difficulties in implementation and ensuring that the connection is used by bonafide senior citizens only. The Commission would not like to create any new category of consumer which would increase the cross subsidy element in the tariff. However, the request of the senior citizens to treat them as a special category for extending courtesy by DISCOMs is agreed to and it is desired that the staff of the DISCOMs be sensitised in dealing with senior citizens and also to make sure that the bills pertaining to senior citizens are identified separately for this purpose.

2.10 Regarding domestic tariff for educational institutions and Basti Vikas Kendra etc. run by NGOs on land given by MCD/ GoNCTD, the Commission is of the view that extending any further concession would be a retrograde step and will increase the cross subsidy element. It would be ideal to fix electricity tariff for all consumers on cost to serve basis and any subsidy based on socio-economic factors or otherwise should be extended by the State Govt. The Commission also feels that the State Govt. should bear the expenses for supporting the weaker sections of society and this responsibility should not be thrust upon other section of consumers.

## Cross - Subsidy

### Objections

2.11 Some of the stakeholders have submitted that the Commission should levy uniform tariff for all consumer categories. Stakeholders objected to cross subsidization of one category of consumers by another category of consumers. It was also submitted that cross subsidization in the tariff structure should reduce progressively and the supply of subsidized power to the agricultural and economically weaker sections of the domestic consumers needs to be continued for some more time. Some of the stakeholders submitted that in case some concession is to be given to consumers below the poverty line, then the regulator must insist on the names of such consumers and make them public for scrutiny.

**Petitioner's Submission**

2.12 The Petitioner in its response to the stakeholders has appreciated the concern of the stakeholder on cross-subsidy across various categories / group of consumers. In the response, the Petitioner has cited Section 61 (g) of the Electricity Act that the Appropriate Commission shall be guided by the objective that the tariff progressively reflects the efficient and prudent cost of supply of electricity. In case any subsidy is to be given to a particular consumer category/ class of consumers, such subsidy should be in the form of direct subsidy by the State Govt. (rather than cross subsidization) as per provision of Section 65 of the Act.

2.13 Further, the Petitioner has quoted from the National Electricity Policy (NEP) and National Tariff Policy (NTP) which advocates progressive reduction of cross subsidy across various categories / group of consumers except in the case of consumers below the poverty line where certain conditions have been prescribed. The Petitioner however, has not submitted any cost of service calculations even after directions to that effect.

2.14 The Petitioner has further stated that given the views of the Commission as reiterated time and again in earlier Tariff Orders, it expects that the Hon'ble Commission will carry forward the reduction of cross subsidy gradually over a period of time in terms of provisions of the Electricity Act, 2003.

**Commission's View**

2.15 Regarding cross-subsidy, clause 8.3 of National Tariff Policy states "Direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross subsidizing the tariff across the board. Subsidies should be targeted effectively and in a transparent manner. As a substitute of cross subsidies, the State Govt. has the option of raising resources through mechanism of electricity duty and giving that subsidy to only needy consumers. This is a better way of targeting subsidies effectively".

2.16 In line with the above provision of the National Tariff Policy, clause 9.1 of the Commission's Distribution Tariff Regulations, 2007 states that any consumer desirous of getting subsidized tariff should approach the State Govt. and if the request for subsidy is found justified, the State Govt. may give subsidy to that class of consumers so that these consumers get electricity at concessional tariff.

2.17 At present, there are a number of consumer classes such as some slabs of domestic consumers, agriculture, mushroom farming, Govt. Schools/Colleges/Hospitals etc. which are being cross-subsidized by other consumers. In public responses received on the tariff petitions of the DISCOMs and otherwise, a substantial section of the public has been raising serious objections to this cross-subsidization. They argue that after privatisation of distribution of electricity in Delhi, the distribution is a purely commercial operation and there is no justification for making some consumers pay for others and that if any class of consumer is to be given concessional tariff on socio-economic or any other reason, it is the State Govt. which should bear the expenditure as supporting weaker sections of society is one of the main responsibilities of Government. It is claimed that this responsibility cannot be thrust upon other sections of consumers.

2.18 The Commission is of the view that it would be ideal to fix electricity tariff for all consumers on cost to serve basis. But considering that historically, there has been extensive cross subsidization in electricity sector, it would take time to bring about a regime with no cross subsidy. Efforts are being made by the Commission to reduce cross subsides. It would be better if the State Govt. could consider supporting consumers, provided concessional tariff through subsidies, so that the cross subsidies could be reduced and one class of consumers does not have to pay for other class of consumers.

## Rationalization of Fixed Charges

### Objections

2.19 Some of the stakeholders have strongly objected to the levy of fixed charges. A few of them submitted that there should be no fixed charges similar to the practice in NDMC area where no fixed charges are being levied.

2.20 Some of the stakeholders submitted that in case fixed charges are levied, these should be adjustable in energy charges as was being done earlier with minimum charges. The fixed charges should not be recovered from a consumer who is using the electricity and paying huge bills. The sole logic behind levy of fixed charges is to cover the fixed cost from the consumer whose consumption is below a fixed level. Some stakeholders even suggested for abolition of fixed charges. It was stated that even public utilities like Railway/Airlines incurring huge capital investments for their services, do not levy any fixed charges.

### Petitioner's Submission

2.21 The Petitioner has submitted that the issue of the implementation of the two part tariff i.e. a fixed charge and an energy charge has already been explained in detail in the earlier Tariff Orders of the Commission.

2.22 Nevertheless, in the response filed by the Petitioner, it was explained that the rationale for levying fixed charges is to recover a part of the fixed cost of the utility so that at least a part of the fixed cost is recovered even if there is no consumption by the consumer. The fixed charge component in a two part tariff is aimed at defraying the capital related and other fixed costs. The Electricity Act 2003 (Section 45) also provides for a two-part tariff. The Petitioner has shown their ignorance about the reasons as to why NDMC domestic tariff does not have a fixed charge component.

2.23 Petitioner has submitted that in terms of provisions of the Electricity Act 2003, determination of tariff to be charged from a category of consumer is the prerogative of the Hon'ble Commission.

**Commission's View**

2.24 The Commission had explained the importance of two-part tariff and the reasons for introduction of fixed charges in its previous Tariff Orders. While doing so, the Commission abolished the Monthly Minimum Charges (MMC) Levy, as it could lead to under-recovery of fixed charge in cases where the consumption exceeded certain minimum levels, as only energy charges would be levied in such cases. Also, Utilities rarely record incremental revenue from MMC separately, and hence it is difficult to project the revenue collected through monthly minimum charges.

2.25 In view of the objections/suggestions received from the various stakeholders, the Commission has reviewed the various options for levying fixed charges. The Commission has considered options such as fixed charges per connection, fixed charges linked to Consumption, fixed charges linked to sanctioned load in kW, etc. When a consumer is connected to the system, the utility has to provide/allocate certain capacity of the distribution system to serve the consumer. In addition to this, some expenses such as meter reading, billing, bill delivery, maintenance etc. are fixed in nature and independent of energy consumption. Ideally, the fixed charges levied on the consumer should reflect the cost of such capacity requirements of the consumer after considering the fixed cost of such system and diversity of load in the system.

2.26 Section 45 (3) of Electricity Act, 2003 also provides for the levy of fixed charges. This Section states that: "The charges for electricity supplied by a distribution licensee may include – (a) a fixed charge in addition to the charge for actual electricity supplied".

2.27 The Commission in its previous Tariff Order dated 26 June, 2003 had introduced fixed charges for most of the categories to recover certain component of the fixed costs. The Commission notes that with the existing tariff structure, the recovery from fixed charges is nominal as compared to the fixed costs of the Licensees.

2.28 The Commission would also like to point out that if fixed charges are removed, the energy charge would increase as the loss in revenue that was being earned by the Licensee by way of fixed charges would have to be compensated for by increasing the energy charge. Therefore, whether only energy charge is levied or energy charge as well as fixed charge is levied, the same ARR would have to be recovered from the consumers.

2.29 The Commission's view on fixed charges was upheld by the Appellate Tribunal for Electricity in the matter of Udyog Nagar Factory Owners Association Vs. BSES Rajdhani Power Ltd. and Others in appeal No. 131 of 2005. The Appellate Tribunal for Electricity in its Order dated 31 March 2006 observed that the rationale and relevance of fixed charges is well established in the electricity industry. Fixed charges are to be recovered as a part of the fixed cost of the utility through fixed charges, so that at least a part of the fixed cost is recovered even if there is no consumption by the consumer. It is to be recognised that when a consumer is connected to the system, the utility has to provide or keep in readiness certain capacity of the distribution system to serve the consumer. Skilled workforce and supervisory staff is kept on the job for monitoring the system, attending to emergencies, restoring the supply in the event of an outage, routine and periodic maintenance, meter reading, billing, bill delivery, defraying administrative expenses not directly related to the consumption of energy.

2.30 The Commission is of the opinion that the best method of levying fixed charges is on the basis of the sanctioned load, as other options do not representatively reflect the cost of providing the capacity requirements of the consumer. After analysing all the options of levying fixed charges, the Commission continues with the existing methodology of levying fixed charges.

## Billing based on kVAh

### Objections

2.31 It was submitted by some stakeholders that as per the CEA Regulations, 2006, meter billing units can only be in kWh and not in kVAh. Some of the stakeholders have also submitted that as power purchases by DISCOMs is measured on kWh basis, the bills to consumers should also be issued on kWh basis only as it is difficult for small scale units (SSI) to maintain power factor even by installing any power factor correction device.

### Petitioner's Submission

2.32 The Petitioner has submitted that issues related to kVAh billing have already been dealt in detail by the Commission in its Tariff Order for FY 2005-06.

### Commission's View

2.33 The Commission introduced kVAh billing for LIP/MLHT vide its Tariff Order issued on 16 January, 2001. In the Tariff Order issued on 26 June, 2003, the Commission directed the DISCOMs to maintain data on the average power factor, kWh, kVAh and kVARh consumption for consumers having electronic meters. The Commission intends to gradually expand the coverage of consumers under kVAh billing as kVAh based tariff takes care of power factor of the consumer and encourages efficient use of electricity. Further, higher power factor eventually helps the system by reduced loading and reduction in losses.

2.34 As per CEA Regulations, consumer meters may have the feature of recording cumulative reactive energy and cumulative KVAh as per the tariff requirement of different categories of consumers. The Commission has specified the tariff for the SIP category on kWh as well as kVAh basis. However, kVAh billing shall be applicable only to those consumers for whom the electronic meters are installed. Till such time electronic meters are installed, the kWh-based tariff shall be applicable. Drawl of reactive power from the transmission system is also priced in various regulatory systems in India.

## Rationalization of Tariff for Dairy Farms, Plant Nurseries, Floriculture, Horticulture etc.

### Objections

2.35 One of the stakeholders in his submission before the Commission, requested for reclassification of small cattle farms having a sanctioned load up to 3 kW from commercial to domestic category. Some of the stakeholders also requested for an agricultural tariff for plant nurseries, horticulture and floriculture etc as these are agricultural activities and should be levied accordingly.

### Petitioner's Submission

2.36 The Petitioner has submitted that determination of tariff to be charged from a category of consumer is the prerogative of the Hon'ble Commission, in terms of the provisions of the Electricity Act, 2003. The Petitioner has further submitted that the stakeholder has been raising the issue repeatedly in various ARR / Tariff determination proceedings.

### Commission's View

2.37 The Commission opines that running cattle farm is a commercial activity and it should be charged accordingly. However, if it is legally permissible to reside in that area where the cattle farm is located, separate domestic connection may be given by DISCOMs for the dwelling unit. The Commission also feels that activities like plant nursery, floriculture, horticulture etc are commercial in nature and any attempt to extend any concessional tariff would only lead to an increase in the cross subsidy element and would be a burden to other categories of the consumers, which is undesirable. The Commission, therefore, would like to continue with the existing classification.

## AT&C Loss Reduction

### Objections

2.38 The stakeholders have submitted that AT&C loss includes the commercial losses, including unpaid bills of consumers and have sought clarification on the status of major defaulters and the action taken thereon. The stakeholders have submitted that the Commission should encourage the Petitioner to further reduce the AT&C loss. It has been suggested that areas in which AT&C losses are below 20%, should be spared from load shedding to encourage AT&C loss reduction in other areas as well.

2.39 It has been expressed that post privatisation, the DISCOMs have reported changes in consumer profiles in their respective service areas. Since the computation of AT&C loss level is linked to the consumer profile, the AT&C loss reduction figures as reported by Petitioner may not be accurate. The stakeholders have also submitted that the DISCOMs have not yet completed Metering of Distribution Transformers so it is not possible for the DERC to ascertain actual losses. The stakeholders also submitted that no audit of energy supplied by distribution transformers and corresponding connected consumers has been carried out in any zone, so how come the DISCOMs have evaluated the energy losses so far.

2.40 The losses claimed to have occurred on account of AT&C are the direct results of inefficient management of power distribution set up. The stakeholders have also submitted that the Commission should take strong action against the Petitioner for their ineffectiveness to plug losses as the consumers have to suffer for the inefficiency of the DISCOMs. The stakeholders are of the view that if honest and sincere efforts are made by the DISCOMs, these losses can be plugged and the increase of tariff can be checked. Some of the stakeholders have opined that there appears to be no incentive for the DISCOMs to bring down AT&C losses, as these losses are borne by the consumers. It has been suggested that to the extent a DISCOM fails to achieve its target, the shortfall in revenue should be borne by the DISCOM itself. It has also been submitted that as already suggested the DISCOMs should be directed to contact BHEL to know the technology which has been developed to reduce AT&C losses and achieve better financial results, but no action has been taken in this regard.

2.41 The stakeholders have also submitted that the Petitioner has projected the AT&C losses for the Control Period below the targets stipulated in MYT Regulations, 2007. The stakeholders submitted that the Commission must enforce the loss reduction targets as mentioned in the MYT Regulations, 2007 issued by the Commission.

2.42 The stakeholders are of the view that the reduction in AT&C losses is very low considering the huge capital expenditure incurred by the Petitioner. Therefore, the Commission may direct the Petitioner for curtailment of losses and other expenses to generate revenue surplus. One of the stakeholders has suggested that no new electricity connection may be granted by DISCOMs till AT&C losses are brought down to 10% and there is surplus energy available.

**Petitioner's Submission**

2.43 BYPL has submitted that they are aware of the high expectations on loss reduction front and have enumerated a few of their achievements in their reply to the stakeholders in the backdrop of crumbling monolithic organization inherited by the Petitioner.

(a) The distribution system reliability index has been brought up to a level of 99.79% (as per CEA formula). The supply position has generally been perceived to have improved over what it was a few years ago. This has come about through investments made in network up gradation, renovation and preventive maintenance in these years.

(b) AT&C losses have been reduced by 18.17% (the reduction will be much higher if the actual opening loss level in July, 2002 is taken).

(c) Savings to the tune of Rs. 1462 Crs from BYPL alone to the GoNCTD which can utilize this money for other development activities (GoNCTD was subsidizing the DVB to the tune of Rs. 1200 Cr p.a.).

2.44 The Petitioner has submitted that in spite of various road blocks as enumerated below, BYPL is continuing with its AT&C loss reduction effort in an aggressive manner:

(a) Difficulty in attaining higher loss reduction in areas like Paharganj, Seelampur. Karwal Nagar, Darya Ganj, Chandni Chowk, and most part of old Delhi etc. due to high population density, old infrastructure, right of way problems and unplanned growth etc.

(b) A large number of unauthorized colonies and JJ Clusters fall in the BYPL's licensed area which BYPL has inherited and more such pockets are coming up. Unauthorised colonies are theft prone areas where illegal constructions come up and even legal addresses are not given as proof of address.

(c) Prior to July, 2002, GoNCTD had registered 1309 unauthorized colonies for regularization. Following is the break up of 1309 unauthorized colonies regularized before privatization classified according to the areas serviced by each DISCOMs BRPL – 663, BYPL – 440, NDPL – 206. Further GoNCTD has recently registered 1539 unauthorized colonies out of which 208 colonies fall in the area of the BYPL. These are electricity theft prone areas as basic amenities do not exist.

(d) The East Delhi area has always been neglected as regards infrastructure is concerned and all resettlement and regularised colonies (large no in BYPL area) suffer from non-existent or poor infrastructure.

(e) Unauthorized construction coming up under HT/EHT lines in violation of IE Rules. This makes it difficult to provide electricity connection to such buildings which besides violating applicable laws also endanger human safety.

(f) Most of the unauthorized areas have unplanned growth and limited access including limited space for laying of cables / lines, the network is highly susceptible to pilferage and it becomes difficult to locate and curb unauthorized abstraction of power. Over time it is observed that pilferage reoccurs in a short period of time.

(g) Building height restrictions, buildings with height more than 15 meters require fire safety clearance. Most such buildings in urban villages / Lal Dora do not meet this requirement and resort to illegal connections / theft. Grant of electricity connection should not be the tool for enforcing building bye laws.

(h) In Non-conforming areas where industrial activity is not permitted, domestic / Non-domestic connections are used for industrial purposes either by by-passing the meter or direct theft. It is for the concerned Govt. Dept. to shut or shift such activity.

(i) Technical solutions in resettlement areas like Karawal Nagar, Yamuna Vihar and Nand Nagri etc. where the loss levels are very high are not cost effective and do not justify the pay back calculations required by the Regulator. Frequent raids will not solve the problem due to public resistance and socio political reasons.

(j) Efforts to replace electro-mechanical meters with digital meters which is an important element for loss reduction, continues to meet with public resistance Even the CEA Regulations make it mandatory for all consumer meters to be of static type (digital) in the whole country. Similar meters are in use in other states which do not appear to have met with such kind of resistance.

2.45 The Petitioner has further provided details of its various loss reduction efforts as enumerated below:

(a) BYPL is conducting Energy Audit for monitoring energy flow and accounting across the distribution network by installing energy meters (654 nos.) with remote reading facility on all 66 KV/ 33 KV/ 11 KV feeders. This has been further extended up to the distribution transformers. This covers over 96.7% of the distribution network. This will facilitate in locating the high loss pockets. In due course, BYPL intends to further fine tune this by tagging consumers connected to the transformers to detect pilferage. The results so far have been encouraging.

(b) BYPL has initiated a special project called "Mass Network modernisation Program" for reducing losses in high theft prone areas. This project envisages refurbishing of old lines with aerial bunched conductors, installation of electronic meters, and enforcement action for booking illegal connections. 120 colonies have already been electrified on LVDS (with AB Cables) under the scheme and 75 electrification schemes will be implemented in FY 2007-08. The total number of unauthorized consumers to be brought into the billing net is expected to be a record high of 1.10 lacs.

(c) The Electricity Act, 2003 has been recently amended providing for stiffer penalties for electricity theft as also making it a cognizable offence. This coupled with the setting up of Special Courts for speedy trial of electricity theft cases will also help in loss reduction.

(d) There are now two Special Courts for BYPL, 3101 cases have been registered with these two Special Courts till October, 2007, out of which 628 cases have been resolved i.e. offenders have agreed to make the payment of assessed amount of theft. It is noteworthy that 158 persons were remanded to judicial custody and six convictions have taken place. In FY 2006-07, the licensee has collected Rs. 25 Cr (approximately) from enforcement activity. This additional revenue will be counted for the purpose of tariff fixation and passed on to the consumers in the ARR.

2.46 The Petitioner has submitted that they are targeting higher theft booking with the assistance of CISF, local Police and other enablers like amendments to the Electricity Act, Special Electricity Courts etc in this financial year. Electricity theft has been one of the most aggressively pursued agenda of the Company. Internal objectives are being set and management performance will be measured and rewarded based on loss reduction.

2.47 Further, the Petitioner has requested active participation and support from all stake holders including the Govt., the public representatives, Citizens, RWAs and NGOs reinforced with effective legal and enforcement framework for control of power theft.

**Commission's View**

2.48 The AT&C loss targets have been fixed in the Regulations based on the past achievements on loss reduction, capital expenditure programs, review of the consumer mix of Delhi, metering status, etc. The Commission has also considered loss levels in similar private urban distribution licensees, such as Ahmedabad Electricity Company, BEST and BSES, Mumbai, where AT&C losses were in the range of 10 percent to 14 percent in FY05. As per Abraham Committee Report for release of the APDRP funds, there are about 169 towns all over India which have loss level of less than 15 %. Even the contemporary licensee of the Petitioner in Delhi, NDMC's loss level is hovering at a level of about 11 %.

2.49 The Commission follows the AT&C loss reduction targets as per the provisions of MYT Regulations, 2007.

2.50 For regular monitoring of AT&C losses, the Commission directs the DISCOMs to provide the break up of energy input to the DISCOM supply area, energy sold, energy billed by the DISCOM, the revenue realisation against billed energy and the district wise AT&C losses on a monthly basis to the Commission within fifteen days after the end of each month.

2.51 The Commission also desires the Petitioner to promote conservation of energy, energy audit and efficient use of energy in its area of supply. Sufficient measures should be initiated by the Petitioner to educate the consumers about different practices for conserving energy and encouraging optimum use of energy. The consumer should be educated by organising consumer meets, lectures, seminars, workshops etc. so as to bring down the energy consumption and power purchase requirement of the

Petitioner. Use of energy saving devices like CFLs and electronic chokes should be encouraged and different schemes should be brought out by the Petitioner to promote their use and adoption by the consumers. Energy Efficient products with higher star rating certified by the Bureau of Energy Efficiency should be encouraged for use by consumers which would ensure minimum electricity consumption and thereby, benefiting the consumer and also helping the energy balance. Bureau of Energy Efficiency has come out with the energy labelling of energy guzzling products like air-conditioner, refrigerators, electric water heaters etc. The Petitioner should take sufficient measures in making the general public conversant about these energy labelled products, the use of which will go a long way in optimising overall energy consumption and reduction in power purchase requirement of the Petitioner. The consumers should be inculcated with the habits of energy saving by public awareness programs.

2.52 The GoNCTD may constitute district committees in accordance with sub-section 5 of Section 166 to further streamline the various activities as envisaged in the Act.

## Information required for Analysis

### Objections

2.53 The stakeholders have requested that the Petitioner must provide copies of the petition to the stakeholders free of charge. The stakeholders have also made a request to the Commission stating that the time provided for filing comments on the petition is inadequate for detailed analysis of the petition. The Commission must provide ample time so as to facilitate submission of public comments with greater analysis.

2.54 Some stakeholders submitted that the facts and figures shown in the ARR are manipulative and tariff hike demanded by the Petitioners are unjustified.

2.55 The stakeholders have suggested that the Petitioner should hold seminars before the commencement of public hearing so as to educate the general public about the ARR and tariff petition and to facilitate meaningful pubic participation in tariff determination process.

2.56 Few stakeholders suggested that consumer groups should participate in technical validation as this will provide feedback on quality of service problems, capital expenditure, metering and billing, etc.

2.57 Some stakeholders suggested that the Commission should appoint an independent consultant in association with a NGO on behalf of consumers at large to analyse tariff petitions and represent viewpoint of consumers during the process of approval of ARR and determination of tariff.

**Petitioner's Submission**

2.58 Petitioner has submitted that since there are large numbers of consumers, it is not possible to provide copies of the petition free of charge. However, the petition is available on the Petitioner's website as well as on the Hon'ble Commission's website for public viewing. The stakeholder can also examine the petition at the Petitioner's office as well as at the Commission's office.

2.59 The MYT petition on ARR for FY 2007-08 to FY 2010-11 is filed under Section 62 of the Electricity Act 2003, read with Section 5.1, Section 5.28 and Section 8.4 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007, Section 11 and 28 of Delhi Electricity Reforms Act 2000 to the extent applicable, Conduct of Business Regulation 2001 and Section 24 of the Licence for Distribution and Retail Supply of Electricity issued by the Hon'ble Commission. All the financial data used for projection for the period FY 2007-08 to FY 2010-11 is based on its annual audited accounts for the previous year (i.e. FY 2006-07). The accounts of BSES Yamuna Power Limited (BYPL) are audited both internally and externally by statutory auditors as per the requirements of the Companies Act, 1956. The Hon'ble Commission also undertakes detailed scrutiny of the accounting statements before allowing the expenses in the ARR proceedings.

**Commission's View**

2.60 Commission feels that the DISCOMs should take sufficient measures to educate the stakeholders about the contents of the petition and to make the public conversant about the implications of their petitions. Commission, on its behalf, had nominated some of its officers to make the general public understand the contents of the petition.

2.61 The Govt. of NCT of Delhi has set up the Electricity Consumers Advocate Committee (ECAC) vide its Order no. F.11(146)/2006/Power/Pt.II/3043 dated 17 December, 2007 which consists of a technical person, an advocate, a representative of VOICE, a representative of confederation of RWAs besides a member from Public Grievance Cell (PGC) . The Chairman PGC will be the Chairman of this Committee. The broad scope of work of this Committee would be to represent consumers interest in litigation before various authorities over the issues of cross subsidy, quality of service, supply related problems; monitor performance standards of DISCOMs; intervene in the Courts and Tribunals on behalf of consumers; promote consumer education; bring out a news letter for consumers; hold meetings with RWAs on consumer related problems etc.

## Metering

**Objections**

2.62 The stakeholders have submitted that meter changing drive should be carried out uniformly for all after taking the details of faulty meters from the electricity bills as well as about the consumers who are paying minimum charge due to faulty or slow running meters. It should be ensured that good quality meters are installed and meter complaints are redressed speedily. Further, fluctuations in supply should be minimized which is also causing the meter to run fast. As per some of the stakeholders, electronic meters are the crying need of the hour but it is discriminatory for 90% consumers having electronic meters and 10% with slow mechanical meters.

2.63 It has been suggested that the electronic meters should be installed only after the distribution network is drastically modified and maintained as per the rule 61 of Indian Electricity Rules, 1956.

2.64 The stakeholders have also submitted that there should be 100% metering, and energy audit for power supplied and revenue recovered from all consumers and the figures of profit and loss should be derived from the said records.

2.65 The stakeholders have submitted that the DISCOMs are not adhering to the performance standards and the consumers are made to pay even for the energy consumption recorded by the electronic meters due to the current flowing back from the neutral. This fact can very well be proved if electronic as well as electro mechanical meters are installed at the premises of certain consumers in consultation with the Associations in a particular area/pocket. The distribution companies should provide relief to the consumers on the basis of such differences after recording a few readings. With regard to complaints of fast running of electronic meters, it has been suggested that the Commission should give direction to the DISCOMs to install mechanical meters in series with the electronic meters to resolve this controversy. The stakeholders have suggested that the consumer complaints of suspected fast running meters be checked by an external agency at consumers' site to the satisfaction of the consumers. It has been also suggested that while replacing old meters with new electronic meters, the DISCOMs should properly check the wiring of concerned premises and ensure that there are no snags in wiring and there will be no over billing.

**Petitioner's Submission**

2.66 The Petitioner has submitted that the licensee's power to change an existing meter by a particular type of BIS certified static meter has been upheld by the Hon'ble High Court of Delhi in Suresh Jindal vs BRPL case. Actions for advising the consumers about electronic meters, internal wiring, earth leakage indications, etc. before installation of meters have also been complied with in terms of the Court Order. The meters are BIS certified and the accuracy of the meters has also been verified in various test drives conducted by the GoNCTD, DERC and BYPL through CPRI, etc. Further as per the CEA (Installation and Operation of Meters) Regulations, 2006, all consumer meters shall be of static type.

2.67 The Petitioner has submitted that its endeavour is to replace meters uniformly in its licensed area. The Petitioner is also bringing metering technologies with advance features like automatic meter reading (AMR), equipped for download of data, tamper indication for tracking the dishonest abstraction of energy. This would help in minimising the metering problems and reduce the level of losses. Further, a meter helpline has been established by the Petitioner to redress the meter related complaints speedily.

2.68 The Petitioner has further submitted that as per IE Rules, 1956 read with the National Electricity Code and the National Building Code issued by the Bureau of Indian Standards (BIS), the consumers are obliged to maintain the internal wirings in good conditions at all times. Further, the wiring is to be isolated and not to be shared with other premises. Also, it requires that any electrical installation work including additions, alterations, repairs and adjustments to existing installation in the premises, should be carried out by qualified personnel only. The Petitioner has further stated that meters have been installed at supply interface points with TRANSCO on feeders, on distribution transformers for facilitating energy audit and identifying losses in various areas.

**Commission's View**

2.69 The Commission has from time to time, issued directions to the DISCOMs to increase public awareness about functioning of electronic meters and make them aware about the problem of 'neutral wire' vis-à-vis the electronic meters. It has also notified Delhi Electricity Supply Code and Performance Standards Regulations, 2007 which deal with the problem of leakage in the customer premises. The Clause 37 of these regulations reads as follows:

2.70 "The meter shall be read once in every billing cycle. It shall be the duty of Licensee official reading the meter to check the condition of LEDs on electronic meters. In case E/L LED indicator, provided on electronic meters, is found 'ON' he shall inform the consumer that there is leakage in the premises and advise him to get his wiring checked and leakage removed. He shall also inform the concerned District Manager about the leakage".

2.71 The Commission had also previously issued public notices and informed the general public about the procedure for Meter Testing and change of meter etc. Public was informed by the Commission that change of meter is to be carried out by Licensee's officials only. Consumers were advised to insist for production of Identity Card and Visiting Card of the Licensee's official heading the team before allowing them to enter the premises. Entry to premises may be refused if team is not accompanied by Licensee's official or if such official fails to produce both the Identity Card and Visiting Card. Besides, following information was also provided by the Commission to the consumers through public notices:

(a) Meter change shall be carried out in the presence of Registered Consumer or current occupant of the premises.

(b) The meter changing team shall bring all the required material, including wires, insulation tape, nuts and bolts, etc. and consumer shall not be asked to supply any material.

(c) Meter changing team shall ensure that all connections to meter are properly done and there are no loose/bare wires.

(d) Team shall also ensure that meter and terminal box are properly sealed after installation.

(e) The DISCOM should ensure that a copy of the meter change report is handed over to the consumer after change of meter.

(f) Consumer should cross check his old and new meter numbers, final reading of the old meter and the initial reading of the new meter before signing the report.

(g) After installation of new meter, if it is observed that 'E/L' (Earth Leakage) LED is emitting light (indicating some leakage in the internal wiring of the consumer), the consumer shall be advised by the Licensee to get his wiring checked to remove such leakage.

2.72 The Commission, in the past, has given the following directions to the DISCOMs on meter related issues:

*(a)* "*DISCOMs to carry out a special drive under the supervision of the District Manager to educate the consumers on this issue. Each connection where meter has been replaced may be checked for existence of 'Common Neutral' and consumer may be advised accordingly. Further, wherever meters are being replaced, they should be checked for 'Common Neutral' problem. Each DISCOM should also publish a list of electricians, area-wise, who are trained to rectify the problem of 'Common Neutral'. The rates for services of such electricians may also be publicized by the DISCOM. Action taken for compliance of this directive may please be reported to the Commission with in a stipulated time.*

*(b) The DISCOM will give a public advertisement drawing the attention of consumers of the potential earth-leakage/ neutral wire problem which could be determined by observing the meter itself. Such of those consumers who observe Earth Leakage/Neutral Wire problem shall be advised to report the matter to the concerned DISCOM for further advice in the matter.*

*(c) The meter readers of the DISCOMs will advise the consumers wherever there are indications in the meter that there could be an earth leakage/neutral problem. The meter reader will simultaneously inform the DISCOM also and the DISCOM will send its staff to ascertain if it is a problem of earth-leakage or neutral wire. The consumer would be suitably apprised of the remedial measures. This exercise would be completed within the next two months.*

*(d) The DISCOM will simultaneously conduct an analysis of their billing module to segregate those meters where increase in consumption has been recorded to*

*the extent of 50% or more after installation of electronic meters. Such meters would immediately be checked for internal wiring problem so that the consumers can be suitably apprised. This exercise shall be further extended to consumption in excess of 30% also in due course.*

*(e) For rectification of the problem of neutral wire/earth-leakage, the consumers may take the services of electricians identified by the DISCOMs or employ their own electricians for this purpose.*

*(f) The DISCOMs are directed to immediately start this assignment and keep the Commission informed on a fortnightly basis."*

2.73 Further to facilitate the understanding of different issues by the consumers pertaining to the functioning of electronic meters, following set of FAQs and their specific replies were put on the website of the Commission.

| | FAQs |
|---|---|
| Q1 | Why are electricity bills getting inflated after replacement of old electromechanical meters by new electronic meters by the utilities? |
| Q2 | How to check where the problems lie? Which of the reasons(s) given at answer 1 above is/are applicable? |
| Q3 | How do you check as a common consumer at your end that your electronic meter is running correct before you approach distribution companies for their help? |
| Q4 | What is the basic difference between the working of old electromechanical meters and new electronic meters? Why the utilities have switched over to new electronic meters when both are ISI marked? |
| Q5 | If electronic meters are working satisfactorily, then why did you receive inflated bills? Has it something to do with neutral connections? |
| Q6 | If meter is running ok and neutral connections are also in order, then what could be the other reasons for increase in the billing amount? |
| Q7 | Do various electricity boards/utilities of different States have different specifications for energy meters? |
| Q8 | Do the Indian Standards match with the International Standards with respect to energy meters? |
| Q9 | Do our Indian Standards on energy meters some tests keeping interest of consumers in mind? |
| Q10 | How to calculate approximate units of electricity consumed in a house and compare it with electricity bill received for a particular month? |

2.74 The Licensees' power to replace an existing meter by a particular type of BIS certified static meter has been upheld by the Hon'ble Supreme Court of India in Suresh Jindal vs. BSES Rajdhani Power Ltd. & Others.

## Theft of Electricity

### Objections

2.75 The stakeholders have submitted that frequent raids should be carried out on all illegal structures made particularly on encroached land including area around electric poles and heavy fines should be imposed for illegal tappings. It has been suggested that open pole system should be replaced by underground cabling system so that theft by illegal hooking can be eliminated.

2.76 Another suggestion has been made that bulk meters should be provided on the distribution transformers for cross checking of the consumption to identify the loss prone areas. The stakeholders have also pointed out that in a large number of cases; the theft of electricity is with the connivance of the staff of the DISCOMs.

2.77 The stakeholders have opined that all surcharges and collection levied on theft of energy should be passed on to the honest consumers. It has been expressed that electricity theft/lapses keep on increasing and penalties are either not imposed or not realised. As per the stakeholders, the DISCOMs should not be allowed to raise the tariff unless they strictly comply with the underlined provisions of curtailing theft of electricity and keeping track on defaulting consumers to ensure that the penalty raised is realised in time and these factors should not contribute to increase in revenue gap.

### Petitioner's Submission

2.78 The Petitioner has submitted that it has undertaken several measures to reduce electricity theft in its area of supply. The enforcement machinery has been strengthened and streamlined with teams of enforcement officers dedicated for the purpose of detection of theft and bringing the offending consumers to book. The Petitioner has also established a helpline for reporting of specific instances of electricity theft. In FY 2005-06, an intensified drive against electricity theft has resulted in an increased recovery over previous year. As per the Petitioner, the said amount was considered by the Commission while determining the ARR.

2.79 The Petitioner has expressed that theft of electricity is an offence which requires immediate penal action against the culprits to discourage others from following suit. The Electricity Act, 2003 has provided for establishment of Special Courts for expeditious booking of the offenders.

2.80 Further, the Petitioner has implemented the high voltage distribution system (HVDS) system at 11 KV in loss prone unauthorised colonies, JJ clusters etc. Also intervention of information technology (IT) is being utilised for detection and booking of cases of theft.

### Commission's Views

2.81 The various steps taken by the Petitioner to reduce theft of electricity have been noted by the Commission. The Petitioner is further advised to take adequate measures for significant reduction in AT&C losses during the Control Period. According to the information available to the Commission, six Special Courts have been established by the Govt. of NCT of Delhi to exclusively deal with electricity theft cases in Delhi.

## Street Lighting

### Objections

2.82 The stakeholders have submitted that there is lot of mismanagement of street lighting in Delhi. It has been observed frequently that there is lot of wastage of energy by street lights during day hours where as, many street lights remain out of order for prolonged duration. The stakeholders have suggested that there should be one common agency for upkeep of street lights irrespective of their owner i.e. whether owned by Public Works Department (PWD), Municipal Corporation of Delhi (MCD) or DISCOMs.

### Petitioner's Submission

2.83 The Petitioner has submitted that street lights in Delhi are owned by road owning agencies like MCD, PWD, DDA etc and these are maintained by the Petitioner on behalf of the road owning agencies for which the Petitioner gets maintenance charges from them as stipulated by the Commission from time to time.

2.84 The Petitioner has also stated that it is maintaining the street lights points which were handed over by the land owning agencies in working condition. For other non-functioning street light points, the Petitioner had taken up the matter with the respective agencies and is willing to rectify such non-functional street lights provided such agencies agree to bear the cost of providing new light fittings and laying of service cables. The functioning level of street lights is determined by joint inspection of the representatives of MCD/PWD every month. The Petitioner has stated that there have been several instances of theft of street light equipments which has lead to frequent disruption of street light functioning. However, any specific complaint of non-functioning of street lights is duly attended as and when brought to the notice of the Petitioner's local offices.

2.85 The Petitioner has submitted that automatic timer have been installed on the street lights which have brought down wastage of electricity. Sometimes, the street lights on a particular stretch are switched on in the daytime for the maintenance purpose.

### Commission's Views

2.86 To ensure specific responsibility and accountability for maintenance of streetlights, the Commission opines that the Petitioner should co-ordinate with the various street lights owning agencies and the Govt. to evolve a common agency which could be given the task of maintaining all the street lights irrespective of their ownership. The Govt. should play a proactive role in resolving the issue to increase the level of satisfaction of the citizens of Delhi.

## Load Shedding

### Objections

2.87 The stakeholders have submitted that with the installation of the Electronic Energy Meters, it is possible to have the feature for downloading the data for the number and duration of supply interruptions either due to supply failure or due to load shedding and the same should be made available to the consumers along with their bills. They suggested replacing all the main feeders which are having frequent breakdowns. As per the stakeholders, penalty should be levied for failure to reduce frequent breakdowns and it has been proposed that penalty for load shedding by DISCOMs should be substantial. It has been suggested that special capital expenditure may be allowed so as to ensure that energy supplied to traffic signals and water pumping stations do not fail under any circumstances.

### Petitioner's Submission

2.88 The Petitioner has submitted that the quality of power and its reliability cannot be solely determined by the service commitment of the Petitioner but it is contingent upon several factors that are beyond its control such as grid supply conditions, constraints in TRANSCO system, SLDC instructions etc. As per the Petitioner, the failure rate of transformers has reduced substantially since July 2002. Further, capacitors have been installed for reactive compensation and better voltage profile. The faults in sub-transmission system have reduced considerably and accordingly the Reliability Index for system has improved.

2.89 Regarding additional features in electronic meters as suggested by some of the stakeholders, the Petitioner has submitted that the meters are as per BIS and CEA Regulations for recording essential parameters and capturing of tamper events. However, additional parameters as suggested can be captured /recorded but the same would increase the cost of meters substantially and apart from this the downloading of information would require additional resources and increase the operational costs. Therefore, a cost benefit balancing is required in this regard.

### Commission's Views

2.90 The Commission has taken note of the suggestion made by the stakeholders to the Petitioner. It is of the view that DISCOMs should arrange adequate power for different seasons well in advance by long term / short term procurement/ banking/ bi-lateral arrangements etc. The Petitioner should undertake augmentation and maintenance of the distribution network to minimise the failure of supply due to breakdowns. Load shedding due to unavoidable reasons needs to be properly scheduled and the same informed to the consumers in advance.

2.91 The Commission agrees with the view of the stakeholders regarding additional features for recording of duration of interruption in the energy meters. The Commission would like the Petitioner to explore this possibility along with any incremental cost, if any, and take necessary steps in this direction.

2.92 The Commission has also linked the Supply Margin of the Petitioner with the energy sales to disincentivise the load shedding by the Petitioner as mentioned in (Para 4.262)

## Competition in Power Distribution Business

### Objections

2.93 The stakeholders have submitted that the Commission can consider introduction of more than one distribution company/licensee in the same area so that there is competition between the licensees and the consumer has a choice to opt for any of the distribution licensee.

### Petitioner's Submission

2.94 As per the Petitioner, the EA, 2003 has enabling provisions for grant of parallel distribution licences. However, it is the prerogative of the Commission to grant such license.

### Commission's Views

2.95 In this regard, the Commission has notified the Terms and Conditions for Open Access Regulations, 2005 on 3 January, 2006 and according to it, open access to the intra-state transmission system in the state is already available at present. The open access to distribution system has been allowed from 1 July, 2007. Further, the Commission will consider the license application, if any, for second Licensee in the same area in accordance with the applicable provisions of the law to create competition.

## New Connections

### Objections

2.96 The stakeholders have submitted that there is no coordination between the staff responsible for providing new connections and the staff responsible for maintenance of the area with the result that certain connections which should be given from under loaded transformers are being given from the fully loaded transformers, thereby leading to frequent trips/breakdowns.

**Petitioner's Submission**

2.97 The Petitioner has expressed its endeavour to provide new connections based on technical feasibility as per the Guidelines / Regulations issued by the Commission. As per the Petitioner, the instances of overloaded transformers have reduced significantly due to the system augmentation work undertaken by them since takeover in July, 2002. However any specific instance of overloaded transformers can be examined.

**Commission's Views**

2.98 The Commission advises the Petitioner to take note of the concern of the stakeholders while issuing new connections so as to avoid unwanted trips due to overloading of transformers. Further the loading of transformers needs to be reviewed periodically and appropriate augmentation of the transformer capacity be undertaken commensurate to the load growth. Further balancing of load on different phases of transformers shall also be checked at regular intervals for proper balancing of the load.

## Cooperative Group Housing Societies (CGHS)

**Objections**

2.99 The stakeholders have submitted that the common services of CGHS which are being charged at highest level of domestic tariff should be charged at normal slab of domestic tariff.

2.100 It has also been submitted that levy of fixed charges is unjustified in case of Domestic 11 kV CGHS SPD connection where the initial capital cost for the entire system including transformers etc is provided by CGHS and the system is being maintained by CGHS/RWAs at their cost only. The stakeholders have submitted that no fixed charges should be charged from CGHS as is not being charged from MCD for street lighting.

**Petitioner's Submission**

2.101 The Petitioner has submitted that the determination of tariff to be charged from the consumer is the prerogative of the Commission, in terms of the provisions of Electricity Act, 2003. The Commission has clearly explained the rationale for determining the tariff for CGHS consumers in its earlier Tariff Orders.

2.102 With regard to fixed charges, the Petitioner has submitted that as per EA 2003, the charges for electricity being supplied by a distribution licensee may include a fixed charge in addition to the charge for the actual electricity supplied. The said fixed charges are stated to cover a component of fixed cost incurred by the DISCOM to maintain the distribution network / infrastructure to meet the load requirements of the consumers.

**Commission's Views**

2.103 The Commission has considered the objections raised on behalf of the Cooperative Group Housing Societies regarding common service of CGHS which are being charged at the highest level of domestic tariff and levy of fixed charges in case of domestic 11 KV CGHS SPD connections and response of the Petitioner on the above mentioned issues. The Commission would like to reiterate that the fixed charges levied on the consumer are essentially to recover the fixed cost incurred by the Petitioner for establishing and maintaining the distribution system in meeting the load requirement of the consumer.

2.104 This view of the Commission was upheld by the Appellate Tribunal for Electricity in the matter of Udyog Nagar Factory Owners Association Vs. BSES Rajdhani Power Ltd. and Others in appeal No. 131 of 2005. The Appellate Tribunal for Electricity in its Order dated 31 March 2006 observed that the rationale and relevance of fixed charges is well established in the electricity industry. Fixed charges are to be recovered as a part of the fixed cost of the utility through fixed charges, so that at least a part of the fixed cost is recovered even if there is no consumption by the consumer. It is to be recognised that when a consumer is connected to the system, the utility has to provide or keep in readiness certain capacity of the distribution system to serve the consumer. Skilled workforce and supervisory staff is kept on the job for monitoring the system, attending to emergencies, restoring the supply in the event of an outage, routine and periodic maintenance, meter reading, billing, bill delivery, defraying administrative expenses not directly related to the consumption of energy.

2.105 The fixed charges levied on the consumer should reflect the cost of capacity requirement of the consumer after considering the fixed cost of such system and diversity of load on the system.

2.106 The Commission is of the opinion that charging at highest slab of domestic tariff for common services of CGHS is justified because these charges are for extra consumption pertaining to the residents of the societies and hence would fall under the highest slab. It may therefore, be continued to be charged as per the present practice.

## Delhi Metro Rail Corporation (DMRC)

**Objections**

2.107 DMRC has submitted before the Commission that DMRC has always been treated as a separate category of consumer in the tariff determination process in the previous years. DMRC's tariff cannot be charged based on tariff chargeable to railways or commercial categories i.e. at Rs 4/unit (variable) and Rs 150/kvah (fixed). DMRC tariff has been fixed in the past years based on the principles deliberated and settled after discussions between DMRC, DISCOMs and the GoNCTD. Also from technical considerations, DMRC needs supply at 66 kV and presently DMRC is taking electricity directly at the inter-connection points of Delhi Transco Limited. The entire distribution network and system beyond the inter-connection points is owned, operated, maintained, serviced, upgraded and utilized exclusively by DMRC, without any intervention to the services rendered by DISCOMs.

2.108 DMRC has requested for continuation of the principles adopted in earlier Tariff Orders of the Commission namely that the DMRC's tariff should be based on the cost at which electricity is available to the licensee at the inter-connection points of TRANSCO and it certainly should not include other expenses of DISCOMs other than the said input cost.

2.109 DMRC has further submitted that Tariff cannot be determined based on any paying capacity of the consumer. The tariff has to be determined based on the cost of supply and The Mass Rapid Transit System for Delhi being executed by DMRC is a public utility and a social sector project with very low financial rate of return. Electricity is the only source of energy for operation of the Metro System. The cost of electricity constitutes a significant part of cost (25% - 30%) of total annual working expenditure.

2.110 Further DMRC cannot be compared with railways. The Railways has been paying higher tariff than cost of supply for past several years before enactment of EA'03. They also operate freight traffic and get compensated accordingly. The Railways may, therefore, be governed by the principles of progressive reduction of cross-subsidization and movement towards cost of supply. However, DMRC has been started as a Green Field Project and cannot be compared with the Railways.

2.111 The stakeholder has requested the Commission that no proposal has been made by any of the distribution licensee about the fact that in the event of power failure in one DISCOM area, a force majeure condition, the other licensee, subject to technical capabilities, shall supply power to DMRC. The fixed charges shall be recovered on normal basis only and the DISCOMs which provide alternate supply shall receive pro-rata fixed charges from the other licensee for the period of such supply. The energy charged shall be received by the DISCOM which actually supplied power to DMRC.

**Petitioner's Submission**

2.112 The Petitioner has submitted that special consideration is being given for maintaining quality of supply to Railways/DMRC and other essential Public utility services. The Petitioner in its endeavour to maintain the uninterrupted supply to these services despite acute power shortage in Northern Grid has purchased costly bilateral power. However, the Petitioner submits that determination of tariff to be charged from the category of consumer is the prerogative of the Commission.

**Commission's Views**

2.113 The Commission acknowledges that DMRC is an essential service being serviced by different distribution licensees within same State of Delhi. The Commission is of the view that in the event of power failure in one DISCOM area, which is a force majeure condition, the other licensee, subject to technical capabilities, shall supply power to

DMRC with Metro Rail being an uninterrupted service. The fixed charges shall be recovered on normal basis only and the DISCOM which provides alternate supply shall receive pro-rata fixed charges from the other licensee, for the period of such supply. Further the energy charges shall be recovered by the DISCOM which actually supplied power to DMRC. The Commission also recognises that scheduling is not extended to any consumer so far in Delhi even after introduction of intra-state ABT w.e.f. 1.04.2007.

2.114 Regarding application of tariff, the Commission is of the view that the tariff for DMRC should be made applicable on cost to serve principle in line with the National Tariff Policy as any cross subsidization of DMRC tariff would only result in the burden on the other consumer categories.

## Railways Traction Tariff

### Objections

2.115 The stakeholder has submitted that there should be no increase in Railway traction Tariff for the period January 2008 to March 2009 as it is already paying much more than cost of supply, cross subsidy being Rs 1.87 per unit. The stakeholder has submitted that average electricity cost of realization for Railway traction should be brought down at reasonable level by cutting down energy charges and demand charges at par with NTPC/NHPC i.e. central generating units rate of supply @ Rs 2.10/1.70 per unit for year 07-08 and @ Rs 2.10/1.80 per unit for year 2008-09. Proposed demand charges are highly unreasonable and should be brought down to level of other neighbouring supply utilities especially for Railways. Further incentives for timely payment shall be given to Northern Railway as such practice will encourage the consumers to make timely payments voluntarily. Even Generating Companies like NTPC are extending this to DISCOMs, hence, same should be extended at least for Government Departments like Railways.

2.116 The stakeholder has stated that as per the National Tariff Policy notified by Ministry of Power, Government of India (GoI), the electricity tariff should progressively reflect the cost of supply and a road map for bringing tariffs within + 20% of Average Cost of Supply by 2010-11 is desirable. The cross subsidy for the Railway traction is Rs 1.87 /unit during 2006-07. It should be reduced progressively during the Control Period. The stakeholder has submitted that there should be no discrimination in tariff between Railway and DMRC.

2.117 Further the stakeholder has requested that demand charges should be abolished or brought down to Re 60 per kVA. The billing demand should be 65% of the contract demand or recorded demand whichever is higher during the month. Northern Railways should be exempted from payments of penalty charges on over drawl of power which becomes unavoidable in many situations arising on account of failure of supply from supplying authorities, accidents, and agitations etc which are beyond the control of the Railways.

2.118 The stakeholder has also put forth these points relating to general electric supply to Railway.

(a) No advance consumption charges from Railways.

(b) At least one month's time should be given for payment of bills from the date of bill receipt.

(c) Consolidated single bill should be issued incorporating all the consumption under one Deputy GM.

(d) Minimum time should be taken for replacement of defective meters.

(e) Revision of Contract Demand should be made effective from the date of application without linking with other issues.

(f) The proposed tariff increase may be kept at constant rate for non traction loads for the three years instead of 35% increase in first year.

2.119 The stake holder has opposed ToD metering for Railway Traction. Northern Railway has submitted that traction load requires power round the clock during whole year irrespective of season and operation of these trains can not be restricted/shifted being an essential service. Load of the Traction sub stations remains fairly constant and forms the base load to the grid throughout the day; even in lean period/off periods. It improves the system load factor and benefits DISCOMs.

**Petitioner's Submission**

2.120 The Petitioner has submitted that the determination of tariff to be charged from the consumer is the prerogative of the Commission. As per the Electricity Act 2003, the charges for electricity supplied by a distribution licensee may include a fixed charge in addition to the charge for the actual electricity supplied.

2.121 As per the Petitioner, the Commission in its earlier Tariff Order for FY 2003-04 has explained that the fixed charges are levied on the basis of sanctioned load or contract demand/billing demand whichever is higher. DISCOMs have to incur expenditure towards maintaining its distribution network/infrastructure to meet the load requirements of the consumer and ideally the fixed cost component should reflect the fixed cost incurred to maintain the infrastructure to supply electricity as and when demanded by the consumer.

2.122 With regard to the road map for tariffs being within + 20% of the Average Cost of Supply, the Petitioner has submitted that implementation and determination of tariff is the prerogative of the Commission.

2.123 Regarding the penalty for over drawl, the Petitioner has submitted that the matter has already been clarified by the Commission in its Tariff Order for FY 2005-06. Any revision/exemption for any class of consumer in the tariff and related issues is the prerogative of the Commission.

2.124 In the matter of Advance Consumption Deposit, the Petitioner has submitted that the same is being charged as per the 'Schedule of Miscellaneous Charges' prescribed by the Commission.

2.125 On the issue of revision of the contract demand, time period for replacement of defective meter and time period to release/enhancement of new connection, the Petitioner has submitted that the matter would be treated as per the notified DERC Performance Standards Regulations. As regard to time period for payment of bills, the Petitioner has expressed that the same is prescribed under the notified DERC Performance Standards Regulations and any exemption in this regard is the prerogative of the Commission. However, the Petitioner has expressed that the aspect of consolidated single bill incorporating consumption of all connections of Northern Railways can be mutually discussed and worked out.

2.126 On the issue of ToD metering for Railway Traction, the Petitioner has submitted that it has not proposed ToD tariff in its MYT petition but the Commission has suo-moto invited suggestion for implementation of ToD metering which may be considered appropriately as per the Commission's discretion.

**Commission's Views**

2.127 The Commission acknowledges the service provided by the Railways to the Nation and the importance of electricity tariff in the functioning of the Railways. The Commission would like to point out that in accordance with the EA 2003 and the policies prescribed from time to time, the Commission is attempting to reduce the prevailing cross-subsidy by increasing the tariff for subsidised categories in higher proportion as compared to subsidising categories, so that the differential between the tariff for subsidised and subsidising categories is reduced. However, it must be appreciated that cross-subsidy cannot be reduced overnight. Cross-subsidy will be gradually reduced over a period of time. Further, while reducing cross-subsidy, the Commission also needs to keep in mind the over-riding principle of avoidance of tariff shock to any consumer category.

2.128 The Commission has also examined the request of the Railways to exempt them from the payment of penalty charges on over drawl considering the unique nature of traction load. In the Tariff Order dated 9 June, 2004, the Commission has specified that whenever the MDI reading exceeds contract demand, a surcharge of 30% shall be levied on the demand charges corresponding to excess demand for such billing cycle. The Commission would like to point out that such a surcharge is necessary for all consumers as the Utilities have to plan in advance to cater to the load of the consumers including the Railways. In case of over drawl of electricity by any consumer, the Utility has to arrange for additional power from costlier sources to meet the demand of the consumer.

2.129 Regarding the Advance Consumption Deposit (ACD), the Commission would like to point out that the issue of ACD is not related to the ARR petition, and therefore, the Commission is not addressing this issue here. With regard to Tariff Design, the fixed and energy charge for various categories are decided duly taking into account the existing cross-subsidy, current AT&C loss level etc. The Commission is already making efforts to reduce cross-subsidy. Further, attempts will be made to rationalize the tariff in line with the Electricity Act 2003, National Tariff Policy etc., with the overall improvement in the electricity supply industry over a period of time.

2.130 Regarding comparison of Railways with DMRC, the Commission acknowledges that DMRC started as a green field project and cannot be compared with the Railways. The Appellate Tribunal for Electricity in the matter of Northern Railway versus Delhi Electricity Regulatory Commission and others upheld the impugned Order of the Commission, whereby, the Commission treated the DMRC as a distinct special class for the purpose of the tariff. The Commission in the past Tariff Orders recognised DMRC as a social sector utility for the public of Delhi and its viability is greatly impacted by the price of electricity. The Appellate Tribunal for Electricity further observed that the purpose of supporting the establishment of DMRC for providing the Mass Rapid Transit System is itself an important ground for treating the DMRC as a separate distinct class of consumers.

## Tariff for Delhi International Airport Limited (DIAL)

### Objections

2.131 The stakeholder has submitted that Delhi International Airport (P) Limited has taken up the modernization of IGI Airport. DIAL has been striving for providing world class infrastructure and amenities at IGI Airport. At present IGI airport is drawing around 90 lakhs units of power from BRPL. Tariff charged is as per mixed load tariff with demand charges of Rs. 150 per kVA and energy charges of Rs 4.90 per unit. Therefore, the effective tariff is Rs 5.50 per unit. Power consumption is going to be increased by 4 times, since present load of 20 MW will get increased to 80 MW by the time IGI Airport modernization is completed by 2010.

2.132 As airports are categorised as core infrastructure projects having national importance, the stakeholder has submitted that power supply to IGI airport should be charged based on HT industrial tariff as airports in other Metros namely Mumbai, Chennai, Calcutta and at Cochin are charged. Therefore, DIAL has requested for reclassification of power supply tariff to IGI airport from mixed load to HT industrial category.

2.133 The Commission has also received an office memorandum no AV/24011/014/2006-AAI dated 8 January, 2008 from Ministry of Civil Aviation with regard to levy of power tariff to IGI Airport. The Ministry of Civil Aviation opined that there should be uniformity of tariff amongst all airports and like any other major airport, power supply to IGI Airport should be based on HT industrial tariff.

### Petitioner's Submission

2.134 The Petitioner has contended that the airports has mixed use pattern i.e. power is used for both industrial and commercial purpose. Major share of power consumed at airports is utilised for commercial establishments at airport premises viz. shops, store, bars and restaurants. Therefore, it is justified to charge power supplied to IGI Airport based on mixed load category tariff. However, the Petitioner has submitted that the determination of tariff to be charged from the consumer is the sole prerogative of the Commission.

### Commission's Views

2.135 The Commission understands the national importance of the Airports and the vital nature of the services being rendered by them. The Commission has taken note of the submissions of the Petitioner also about the nature and type of load of the Airports and the crucial nature of continuous uninterrupted supply to them. Taking note of the above, the Commission opines that as the airports are not covered under Factory Act, they can not be treated under industrial category. Hence, it may be continued to be levied MLHT tariff as per the present practice. If power is taken at 33 / 66 kV or 220 kV, the tariff schedule provides for appropriate rebate.

## Tariff for Mahanagar Telephone Nigam Limited (MTNL)

### Objections

2.136 The stakeholder has submitted that telecom operation should be charged for the power supply based on the industrial category tariff instead of NDLT-I category tariff being charged presently. The stakeholders argued that telecom operations are not commercial but industrial activities and hence should be charged industrial tariff for its telecom operations.

### Petitioner's Submission

2.137 The Petitioner submitted that as per the provisions of Delhi Electricity Supply Code and Performance Standard Regulations 2007, billing for MTNL falls under Non-Domestic category. Therefore, electricity consumption of MTNL connections is being billed in Non-Domestic category is correct.

2.138 Further, one needs to be registered under Factories Act to qualify as industrial consumer.

2.139 However, the Petitioner submitted that it is the sole prerogative of the Hon'ble Commission to determine tariff after balancing the overall interest of all stakeholders of the power sector.

**Commission's Views**

2.140 The Commission opines that as MTNL is not covered under Factory Act, it can not be treated under industrial category. Hence, it may be continued to be levied non-domestic tariff as per the present practice.

## Tariff Policy (Uniform/Differential Tariff)

**Objections**

2.141 The stakeholders have opposed the concept of differential tariff. Most of the consumers have advocated for uniform tariff for different consumer categories across all the DISCOMs.

2.142 However, a few stakeholders have mentioned that uniform retail tariff for all licensees in Delhi is against the objective of improvement and efficiency in the power sector. Section 62 (3) of Electricity Act, 2003 permits differential tariff depending upon the geographical position and purpose of supply. Therefore, in the interest of consumer and electricity sector, differential tariff be framed for consumers of Delhi.

2.143 Some stakeholders have submitted that the energy charges should be based on Cost of Supply (CoS) and cross subsidy should be eliminated. The energy charges of HT consumer should be based on CoS and the tariff should be fixed on the basis of the voltage of the consumer.

**Petitioner's Submission**

2.144 The Petitioner has submitted that the determination of tariff to be charged from the consumer is the prerogative of the Commission.

**Commission's Views**

2.145 Regarding the mixed response of the stakeholders for application of tariff for different consumer categories, the Commission has decided to continue with the same philosophy for determination of tariff as specified in the previous Tariff Orders which is also in line with the National Tariff Policy. The Commission has kept uniform retail tariffs across all DISCOMs in Delhi for different categories of consumers.

## Transparency in DISCOM's Accounts

**Objections**

2.146 The stakeholders have submitted that there seems to be a large no of anomalies in the Petitioner's accounts. The stake holders alleged that distribution companies in Delhi are manipulating their accounts by fraudulent and illegal means to the disadvantage of general public. It has been also alleged that DISCOMs have indulged in procurement of capital goods from sister concerns at much higher prices. In case of BSES companies, they have purchased equipments of Rs 800 Cr from its sister concerns but paid Rs 1250 Cr for the same in one financial year.

2.147 The stakeholders have demanded that DISCOMs' accounts should be audited by Comptroller and Auditor General of India (CAG). Some stakeholders even demanded that considering above facts, licences of BSES companies should be cancelled and an audit should be done by independent agency to ascertain the facts and evaluate the performance standards for last 5 years.

2.148 The stakeholders have demanded that since electricity distribution companies are public utilities, they should come under the preview of Right to Information Act. Since Govt. of Delhi have 49% stake in distribution companies, DISCOMs can not deny information to the consumers.

**Petitioner's Submission**

2.149 The Petitioner has submitted that all the purchase orders placed by the licensee are based on competitive market rates and the costs are in line with the approved rates of the Hon'ble Commission, wherever applicable. The Petitioner has submitted that BYPL have followed the best practices/ processes in procurement and award of contracts in the past and would continue to do so in the future keeping in view the corporate governance norms and the interests of all the stakeholders concerned.

2.150 With regard to manipulation and misrepresentation of accounts, the Petitioner has submitted that the accounts of BSES Yamuna Power Limited (BYPL) are audited both internally and externally by statutory auditors as per the requirements of the Companies Act, 1956. The Hon'ble Commission also undertakes detailed scrutiny of the accounting statements before allowing the expenses in the ARR proceedings.

2.151 Further the Petitioner has submitted that the Hon'ble Commission has conducted an audit of billing software of the licensee through the STQC Directorate of the Ministry of Information Technology and found it to be satisfactory. Similarly, the audit department of Municipal Corporation of Delhi has conducted an audit of its accounts with respect to Electricity Tax computation and found them to be in order.

2.152 As per the license conditions, BYPL is required to prepare annual accounts up to the thirty-first day of March each year, and render an annual statement of its audited accounts along with auditor's report, within a period of nine months from the aforesaid date, to the Hon'ble Commission. The licensee is complying with this condition and there is no room left for any misreporting of figures.

2.153 The Petitioner submitted that it is not a government run company but a private business entity, therefore not subjected to the provisions of the RTI Act.

### Commission's Views

2.154 The Commission is of the considered view that DISCOMs are Public Utilities and they must comply with the provisions of Right to Information (RTI) Act, 2005. The said opinion of the Commission pertaining to the status of DISCOMs in the RTI Act was upheld by the Central Information Commission (CIC) in its Order dated 30 November 2006.

2.155 The said impugned Order of the CIC was subsequently challenged before the Hon'ble High Court of Delhi by the DISCOMs and the said Order was stayed by the High Court. The Commission as one of the Respondents in this matter has filed its reply before the High Court of Delhi. The Commission has also filed a separate writ petition before the High Court praying for declaration of the DISCOMs as Public Authority within the four corners of Right to Information Act. Both the matters are sub-judice.

2.156 Regarding purchases from sister concerns by BYPL, the Commission holds the view that the submissions made by the Petitioner are subjected to prudence checks during the analysis of their ARR petitions and only the rational and justified expenses and purchases are allowed in ARR. Further details on this issue and the Commission's view have been given in the concerned Annexure V in this Order.

## Power Purchase from Renewable Sources

### Objections

2.157 The stakeholders are in favour of a minimum Power Purchase obligation from renewable sources of energy. The stakeholders have submitted that such a step would be beneficial from environmental point of view. It has also been suggested that Alternate /renewable power should be encouraged with higher subsidy, if they are willing to put up small wind, solar, bio-mass and LPG base plants. However, a few stakeholders cautioned against large impact on consumer tariffs considering lower availability of renewable power in Delhi and suggested that same should be taken into account while specifying renewable power purchase obligation for the licensees.

### Petitioner's Submission

2.158 The Petitioner has submitted that it recognizes that power generation through renewable energy sources has a role to play both from the environmental angle and in view of the depleting natural fuel resources. The Petitioner has reposed its faith in the Commission that while fixing a minimum percentage for purchase of energy from renewable sources, the Commission will keep in view the nascent status of non-conventional technologies, the capital and operating cost vis-à-vis conventional energy sources.

**Commission's Views**

2.159 The Commission is of the view that to encourage use of clean fuel and to mitigate pollution, the Petitioner should try to achieve 1% of total power purchase from renewable sources. The Commission is inclined to allow higher quantum of renewable power to address the menace of pollution and global warming and promote use of clean fuel subject to its availability and convenience taking into account the overall power purchase cost allowed in the ARR.

2.160 The Commission is keen to promote the procurement from renewables. However, the scope for such procurement in Delhi is rather limited. It is therefore necessary for States like Delhi to look for procurement from renewables from other States. The matter was also discussed by the Commission in the State Advisory Committee meeting held on 21 January, 2008. The carbon credit trading is being done across continents. The system is very well established over a period of time. The Commission is of the view that it will be a good idea to create an environment in which the renewable energy certificates can also be traded across various States in India. The Commission earnestly requests the Govt. of India as well as the State Government for evolving an appropriate methodology for trading in renewables certificates so that States like Delhi, which do not have much scope in promoting renewables can at least follow the route of trading in renewables certificates. Any such trading in renewables certificates shall be evolved in such a manner which protects the interest of both the buyers and the sellers of such certificates.

## Meter Testing

**Objections**

2.161 The stakeholders have submitted that Delhi does not have any independent meter testing facility and that the meters are, currently, tested in the laboratories owned by the DISCOMs. The Stakeholders have objected that the process of meter testing in the laboratories owned by the DISCOMs is improper and have requested that an independent meter testing facility should be established by the Government.

2.162 The stakeholders have submitted that presently meter assessment reports are kept with DISCOMs only. Instead, meter testing reports should be in triplicate, one copy should be retained by the DISCOM, second copy with the consumer and third copy should be with the Commission.

**Petitioner's Submission**

2.163 The Petitioner has submitted that the meter testing laboratory owned by it is accredited by NABL and that the process followed for testing the meter in its laboratory is fair and transparent.

### Commission's Views

2.164 The Commission has already appointed ERTL, Okhla, New Delhi, which is a NABL accredited Govt. laboratory as an independent third party Agency for undertaking testing of meters in their lab at Okhla on behalf of the Commission. At present there is no NABL accredited govt. lab in Delhi for carrying out on site testing of meters for accuracy check. It is learnt that a few laboratories are in the process of getting NABL accreditation for on site testing of meters in Delhi. The Commission will take a view on the appointment of third party agency for on site meter testing once NABL accredited laboratories are available in Delhi for on site testing of meters.

## Enforcement Practices Adopted by the Petitioner

### Objections

2.165 The stakeholders have submitted that DISCOMs must refrain from employment of contract employees for meter testing and enforcement activities. Only permanent employees of the Petitioner should be engaged in enforcement activities. It was also alleged that DISCOMs staff are harassing the consumers in the name of enforcement and theft prevention activities. The enforcement staff themselves break the seal of the meters and demand graft in lieu of booking for the offence of electricity theft.

2.166 The stakeholders also submitted that proper guidelines are not being followed in meter testing by the enforcement staff. Instant meter testing is performed by enforcement staff in just 2 minutes in violation of Delhi Supply Code 2007 which require the meter to be tested for at least 30 minutes.

2.167 The stakeholders also requested that since meter reading is done for every two months cycle, hence in case of slow/stopped meters, penalty should be collected at two months average consumption and not at the six months average consumption as being done now.

### Petitioner's Submission

2.168 The Petitioner submitted that all the enforcement activities are carried out strictly in accordance with the applicable guidelines as given in the EA 2003 and DERC Supply Code Regulations. There is no question of the authorised officer being a contractual employee and sometimes the lower level staff accompanying the enforcement team are contractual employees. All the penalties are levied strictly as per the provisions of EA 2003 and Supply Code Regulations.

### Commission's Views

2.169 The Commission appreciated the concern of the stakeholders and directs the Petitioner to follow all the relevant provisions of the Electricity Act, 2003 and Supply Code Regulations strictly. Clause 'a' of Sub-Section 2 of Section 135 of the

Electricity Act, 2003 provides that any officer authorised by the State Government may :

(a) enter, inspect, break open and search any place or premises in which he has reason to believe that electricity has been, is being, or is likely to be, used unauthorisedly;

(b) search, seize and remove all such devices, instruments, wires and any other facilitator or article which has been, is being, or is likely to be, used for unauthorized use of electricity;

(c) examine or seize any books of account or documents which in his opinion shall be useful for or relevant to, any proceedings in respect of the offence under sub-section (1) and allow the person from whose custody such books of account or documents are seized to make copies thereof or take extracts there from in his presence.

2.170 Thus the law has provided sufficient protection for employing an authorised officer only to lead an Enforcement Team.

## Misuse of Category

### Objections

2.171 Some of the stakeholders pointed to wrong misuse charges being levied for using a commercial connection for an industrial use as they were already paying a higher commercial tariff than the industrial category.

### Petitioner's Submission

2.172 The Petitioner submitted that the unauthorized use of electricity is an offence and requires penal action against the culprits to deter others from following suit. The Electricity Act, 2003 has been recently amended (sections 126, 127, 135,150,151 & 154) providing for stiffer penalties for unauthorized use/ electricity theft, as also making such theft a cognizable offence.

### Commission's Views

2.173 As the issue regarding the misuse of category is not a tariff related issue, the Commission is of the view that it would be governed by the provisions of Supply Code Regulations, 2007.

## Meter Reading

### Objections

2.174 This issue was raised at the time of public hearing while discussing regarding the replacement of old meters. The stakeholders submitted that the status of the meter whether it was in proper condition or not during the previous meter reading should be reflected in the bill, especially in the context of tampering of meter, theft cases for unauthorized abstraction of energy etc. being suddenly booked by the DISCOMs.

### Petitioner's Submission

2.175 The job of the meter reader is only to take the reading of the meter and not to assess whether the meter is tampered or not. Moreover, the status of the meter whether tempered or otherwise can not be ascertained merely by having a physical examination of the meter.

### Commission's Views

2.176 The Commission feels that tampering or otherwise status of the meter can not be assessed and confirmed by a meter reader during his visit to the premises for meter reading as he may not be suitably equipped and competent to establish the accuracy and status of the energy meter.

## Definition of a Month

### Objections

2.177 Some of the consumers were facing problems on account of ambiguity in the definition of a month for calculating the nos. of units eligible for concessional tariff under different slabs.

### Petitioner's Submission

2.178 Slab calculation is done on the difference of two meter reading dates, wherein if dates between two reading dates are same i.e. 02.01.2007 to 02.03.2007, the slab is taken to be two months. However, if reading dates are not same i.e. less or in excess on month/months, then the days are converted to months considering 31 days per month. 31 days per month are considered since it gives 11.9677 months per year which is closer to 12 months as compared to 30 days/month which gives 12.134 months per year.

### Commission's Views

2.179 The Commission has examined the issue and it is observed that there is no uniform approach among the DISCOMs regarding the definition of a month whether 30 days or otherwise to calculate the units eligible for different slabs which leads to confusion. It is, therefore, of the view that the DISCOMs shall use actual no of days in that calendar month to arrive at no of units eligible of different slabs in a particular billing period. This will ensure uniformity and mitigate the inconvenience being caused to the consumers of different DISCOMs.

## General Complaints

### Objections

2.180 There was an issue of un-attending complaints and no sympathy shown to the consumers by call centres and lower level staff. The stakeholders wanted the telephone nos. of the concerned officials of DISCOMs to be made known to the general public either through bills or otherwise to enable them to contact these officials to solve their problems.

### Petitioner's Submission

2.181 The customers in the licensee's area of supply have a 24 x 7 access to a dedicated "No Supply" call centre - manned by trained personnel. The licensee has conducted special training programs for all personnel manning the call centers.

2.182 All complaints lodged are monitored internally for faster resolution. In addition, there are dedicated helpline numbers for Billing and Metering (Ph # 39999808), Reporting of theft (Ph # 39999888) and Emergency/ Power Supply Related (Ph # 42895555). Additionally, the Contact details of nearest customer care and payment centre, Business Manager and Commercial Officer are provided in the monthly consumption bills.

2.183 The licensee, since July 2002, has undertaken several initiatives towards enhancing customer care / awareness. Some of them are:

(a) "Aapke dwar"

(b) "One visit"

(c) Weekly RWA meeting

(d) Customer care centres within average range of 2-3 kms.

(e) 24X7 "No supply" call centre

(f) Synergy Newsletter

(g) Sale of CFL lamps at subsidized rate for promoting Energy conservation

(h) Viewing / payment of individual energy bill online through internet.

(i) Bar coded bills for consumers.

(j) SMS alerts to key consumers.

2.184 The licensee has also envisaged various customer care initiatives during the Control Period under the MYT regime. This includes servicing key consumers from Call Centres, Calling back consumers to get feedback about customer service rendered for the complaints filed, Proactive information through SMS to consumers on major outages, Reinforcing consumer database by adding email and Phone number etc which should go on to improve the interaction between consumer and DISCOM.

**Commission's Views**

2.185 The Commission shares the concern of the stakeholders and expects the Petitioner to adhere to the various norms and provisions of the Supply Code Regulations about quality of supply. The Petitioner should take all necessary measures to ensure an effective complaint redressal mechanism for its consumers.

## Uniform Tariff for Delhi Government Offices

**Objections**

2.186 Most of the stakeholders welcomed and supported the proposal for introduction of prepaid meters in Govt. offices. Few stakeholders asked for more clarification on this scheme before introduction.

2.187 The stakeholder submitted that the Delhi Govt. is required to conduct energy audits of their schools, offices etc. and it will act as a guiding principle for utilizing the energy. This should be extended to the offices of MCD and MCD run schools also so that the energy awareness among the offices of MCD/schools is also made. However, there should not be any categorization for the Govt. / public. The categorization should strictly be based on the nature of usage, namely domestic, non-domestic, industrial and agricultural and should not be based on government and private usage.

**Petitioner's Submission**

2.188 The Petitioner submitted that concept of Uniform tariff for Government Consumers is being explored in the backdrop of installation of Prepaid Metering as proposed by Delhi Govt.

2.189 It was further submitted by the Petitioner that they appreciate the flagging of this issue by the Hon'ble Commission and trusted that the tariff as and when determined by the Hon'ble Commission will be cost reflective keeping in view the objective of reduction in cross subsidy across categories in line with the Electricity Policy (NEP) and the National Tariff Policy (NTP).

2.190 The Petitioner mentioned that they are already charging non-domestic tariff to all Delhi Govt. offices.

**Commission's Views**

2.191 The Commission has examined the matter in view of the request from Govt. of Delhi to facilitate the installation of pre-paid meters in the offices of Delhi.

2.192 The Commission is of the view that a uniform tariff for all Govt. offices of Delhi would ensure easy implementation of pre-paid metering. The Govt of Delhi offices are currently being charged under NDLT category, where pre-paid metering can be easily implemented. The Commission has, therefore, not created any new consumer category in tariff schedule for Govt of Delhi offices and continued with the existing practice.

## Time of Day Metering

**Objections**

2.193 Stakeholders submitted that the Time of Day metering should be introduced in the interest of consumers only after due deliberations with consumers and DISCOMs. They further requested for more clarification on this scheme.

2.194 Some stakeholders submitted that the proposal should be optional and an alternate plan for the consumers should be made available.

2.195 Most of the stakeholders objected to ToD metering as the peak slab shown in the advertisement by the Commission would result in more expensive electricity for all categories. They further added that such scheme should be considered for industrial load having load of 150 kW to 200 kW and this scheme may be introduced for a pilot batch for large commercial consumers only.

2.196 The Industrial Federations and the Commercial category consumers were also not in the favour of application of ToD metering scheme.

**Petitioner's Submission**

2.197 The licensee has not proposed ToD tariff in its MYT petition. The response from the stakeholder appears to be with respect to the Public Notice dated 22 November 2007 of the Hon'ble Commission. We wish to mention that the present initiative for ToD metering is of The Energy Resources Institute in association with the GoNCTD.

2.198 The Petitioner is of the view that the useful suggestions given by the stakeholder will be appropriately considered by the Commission while determining the ARR and retail tariffs of the Licensee.

2.199 ToD metering is proposed to be optional and will only benefit the consumer in terms of lower power purchase cost during peak time due to shifting of consumption from peak periods to the off- peak periods. However, the Hon'ble Commission may like to decide on this subject.

**Commission's Views**

2.200 In view of the wide spread apprehensions expressed by stakeholders, the Commission is of the view that ToD can be introduced on voluntary basis only as a pilot project to see its efficacy and results.

# A3: TRUE-UP FOR POLICY DIRECTION PERIOD (FY03 – FY07)

## Background

3.1 The Commission had approved the Aggregate Revenue Requirement (ARR) of BYPL for FY03 & FY04, FY05, FY06 and FY07 in its previous Tariff Orders.

3.2 The Petitioner (BYPL) appealed against the Commission's Tariff Order for FY03 & FY04, and FY05 in the Hon'ble Appellate Tribunal of Electricity (hereinafter referred to as the 'ATE').

3.3 The ATE in its Order dated 24 May, 2006 observed that the claim for accelerated depreciation by the distribution companies merits acceptance. There is no escape except to allow depreciation in terms of Schedule VI of the Electricity (Supply) Act, 1948. Though discretion is given to the Commission under Sub-Section 3 of Section 28 of DERA to depart from the above, but the Commission has not chosen to do so and, therefore, it follows that the Appellants are entitled to depreciation at the accelerated rate as notified by the Ministry of Power, Govt. of India. The ATE held that the Commission has to allow depreciation as per the notification of the Ministry of Power issued in terms of paragraph (a) of paragraph (VI) of Sixth Schedule for the tariff period in question.

3.4 The Commission appealed against the above impugned Order in the Supreme Court of India in Civil Appeal No. 2733/06. The Supreme Court upheld the impugned Order dated 24 May, 2006 of the ATE and directed the Commission to allow depreciation @ 6.69% for the entire Policy Direction Period. The Supreme Court was of the view that the Commission was not entitled to derive the rate from the fair life of the asset. However, it stated that its judgement is confined to the facts of the present case alone and the reasoning given is in the context of the period of 5 years. This judgement should not be construed to apply for all times. It is confined to the Policy Direction Period only.

3.5 The Petitioner also challenged the Tariff Order of FY07 where the Commission has done second true-up of FY05 based on the final audited accounts and first true-up for FY06 based on the provisional accounts.

3.6 The ATE vide its Order dated 23 May 2007 observed that the Commission needs to allow all the actual expenses incuured towards employees including contractual employees. Further, the expenses incurred on telephone and postal and telegraph and conveyance were also to be allowed for FY05 and FY06 at actual.

3.7 The Petitioner has prayed for truing up of various cost elements approved for FY03, FY04, FY05 and FY06 as part of the MYT petition based on the Orders issued by the ATE and the Supreme Court. The Petitioner has also requested for truing up of various cost and revenue elements for FY07 as part of the MYT petition.

3.8 The MYT petition filed by the Petitioner was admitted by the Commission despite certain discrepancies and information gaps to expedite the tariff determination process. The Commission issued various deficiency notes to the Petitioner highlighting the shortcomings in the petition and directed to submit clarifications and further information. The Petitioner subsequently responded to the queries raised by the Commission and furnished various documents/clarifications during detailed analysis of the petition. List of all the correspondences with the Petitioner is attached as Table 3 in Chapter 1.

3.9 The Commission has considered the submissions made by the Petitioner during the analysis of the petition for the purpose of true-up of ARR for FY03, FY04, FY05, FY06 and FY07.

3.10 The Commission had trued-up values for FY06 in its Tariff Order issued on 22 September, 2006 based on the provisional accounts submitted by the Petitioner. The Commission has now trued-up the expenses of FY06 based on the audited accounts for FY06 using the mechanism for true-up as prescribed in previous Tariff Orders.

3.11 The Commission has also trued-up expenses of FY07 based on audited accounts for FY07 submitted by the Petitioner.

3.12 This chapter details the submissions of the Petitioner for true-up of various cost components for FY03, FY04, FY05, FY06 and FY07, analysis of the Commission and the final trued-up values. Detailed analysis of each component of cost is given below.

## Capital Investment

3.13 The Commission, in the previous Tariff Orders, had approved the year-wise capital investment based on the capital investment schemes submitted by the Petitioner.

3.14 The capital investment figures approved by the Commission in the previous Tariff Orders and the incidental interest during construction (IDC) and establishment expenses are shown in the table below:

**Table 5: Capital Investment approved by the Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Capital Investment | IDC and Establishment Expenses | Total Capital Investment |
|---|---|---|---|---|
| FY03 | FY04 Tariff Order | 56.36 | - | 56.36 |
| FY04 | FY04 Tariff Order | 335.50 | 12.59 | 348.09 |
| | 1st True Up (FY05 Tariff Order) | 85.34 | 2.35 | 87.69 |
| FY05 | FY05 Tariff Order | 547.66 | 20.29 | 567.95 |
| | 1st True Up (FY06 Tariff Order) | 405.25 | 10.30 | 415.55 |
| | 2nd True Up (FY07 Tariff Order) | 405.25 | 6.84 | 412.09 |
| FY06 | FY06 Tariff Order | 426.00 | 22.64 | 448.64 |
| | 1st True Up (FY07 Tariff Order) | 304.00 | 12.41 | 316.41 |

| Year | Tariff Order | Capital Investment | IDC and Establishment Expenses | Total Capital Investment |
|---|---|---|---|---|
| FY07 | FY07 Tariff Order | 200.00 | 23.69 | 223.69 |

3.15 The Petitioner in its letter to the Commission dated 26 December 2007, has submitted the actual capital investment as follows:

**Table 6: Capital Investment claimed by the Petitioner (Rs Cr)**

| Particular | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Capital Investment | 57.6 | 85.3 | 416.0 | 357.4 | 282.6 |

3.16 The Commission has considered the capital investment for the period up to FY07 based up on the analysis of the submissions made by the Petitioner and the relevant Order of the ATE.

3.17 The Petitioner in letter no RCM/07-08/846 dated 26 December, 2007 submitted actual capital investments (including IDC and establishment expenses) made during the year as Rs. 357.4 Cr and Rs 282.6 Cr for FY06 and FY07 respectively against the capital investment of Rs. 316.41 Cr and Rs 223.69 Cr approved by the Commission in its Tariff Order of FY07.

3.18 The Commission in its Tariff Orders dated 7 July, 2005 and 22 September 2006 had clarified that the consideration of capital investment by the Commission is for the purpose of determination of ARR, and it does not imply the approval of capital investment for various schemes. The Petitioner has to obtain scheme wise approval for the capital expenditure incurred during the respective years.

3.19 In the said Tariff Orders, the Commission had further observed that: "*the approval of the schemes has to be undertaken separately from ARR and Tariff Determination process, as it requires significant time and resources of the Commission.*" The Commission had directed the Petitioner to submit the complete Detailed Project Reports (DPR) along with cost-benefit analysis for the schemes costing more than Rs. 2.00 Cr for obtaining the scheme-wise investment approval of the Commission.

3.20 The Commission directed the Petitioner to provide the complete scheme-wise details of actual capital expenditure incurred in FY06 and FY07 along with the completion report and prescribed certificates. The Commission also advised the Petitioner to procure the material for capital investments through competitive bidding process to ensure that transparency is maintained as stipulated by the License conditions.

3.21 Based on the detailed scrutiny of the various capital investments schemes and giving due consideration of the investment in a prudent, efficient and economical manner as per the system requirement, the capital investment has been firmed up by the Commission for FY06 and FY07. The capital investment/ capitalisation approved by the Commission is after consideration of the disallowance as per findings of the Commission (as detailed in Annexure V to this Order).

3.22 The summary of the capital investment including IDC and establishment expenses, as trued-up by the Commission for each year of the Policy Direction Period is shown in the table below:

**Table 7: True-up of Capital Investment (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Approved Base Capital Investment | 56.36 | 85.34 | 405.25 | 277.09 | 187.57 |
| IDC and Establishment Expenses | - | 2.35 | 9.17 | 21.83 | 21.51 |
| Total Capital Investment | 56.36 | 87.69 | 414.42 | 298.92 | 209.08 |

## Asset Capitalization

3.23 The opening balance of Gross Fixed Asset (GFA), based on the Transfer Scheme notified by the GoNCTD on 20 November 2001 was Rs. 360 Cr, which included accumulated depreciation of Rs 70 Cr. The opening balance of the Capital Work in Progress (CWIP) in the Petitioner's book of accounts was zero.

3.24 The asset capitalisation figures approved by the Commission in the previous Tariff Orders are shown in the table below:

**Table 8: Asset Capitalisation approved by the Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Asset Capitalization |
|---|---|---|
| FY03 | FY04 Tariff Order | 22.70 |
| FY04 | FY04 Tariff Order | 312.13 |
| | 1st True Up (FY05 Tariff Order) | 78.82 |
| FY05 | FY05 Tariff Order | 377.30 |
| | 1st True Up (FY06 Tariff Order) | 225.79 |
| | 2nd True Up (FY07 Tariff Order) | 165.84 |
| FY06 | FY06 Tariff Order | 451.28 |
| | 1st True Up (FY07 Tariff Order) | 312.41 |
| FY07 | FY07 Tariff Order | 350.00 |

3.25 The details of net asset capitalization submitted by the Petitioner in a letter to the Commission dated 26 December, 2007 is shown in the table below:

**Table 9: Asset Capitalization claimed by the Petitioner (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Asset Capitalisation | 29.92 | 76.59 | 225.68 | 356.67 | 235.45 |

3.26 For FY03, the Petitioner has claimed asset capitalization of Rs 29.92 Cr, which includes Rs 7.88 Cr based on its accounts and Rs 22.04 Cr on account of R&M and A&G expenses transferred to GFA based on the Orders of the Commission. The Commission in its Tariff Order for FY04 had approved asset capitalization of Rs 22.70 Cr for FY03 which included the R&M and A&G expenses capitalized and transferred to GFA. The asset capitalization approved for FY03 has been used by the Commission in the subsequent Tariff Orders at the same level and therefore, the Commission has considered the final asset capitalization of Rs 22.70 Cr.

3.27 Similarly the Commission has considered asset capitalization of Rs 78.82 Cr for FY04 as approved in the Tariff Order for FY05.

**Prior Period Adjustments for Transfer of Stores**

3.28 The Petitioner in the petition filed in the ATE claimed that the valuation of stores and spares has increased from Rs.5 Cr as provided in the Opening Balance Sheet of the Transfer Scheme to Rs.28.40 Cr which was paid to DPCL in FY05. The Petitioner also claimed that some of these spares had been used in capital schemes in FY03 and FY04 and some were used for R&M activities in FY03, FY04, FY05 and FY06 at zero value.

3.29 The Petitioner had claimed additional capitalization for spares of Rs 12.70 Cr and Rs 2.57 Cr in FY03 and FY04 respectively which were earlier done at zero value. The Petitioner has also claimed additional R&M expenses of Rs 6.81 Cr, Rs 0.2 Cr, Rs 0.47 Cr and Rs 0.65 Cr in FY03, FY04, FY05 and FY06 respectively with respect to consumption of these spares in R&M activities.

3.30 The Petitioner has also claimed that it had made adhoc provision of Rs 10.00 Cr for consumption of these spares in R&M expenses in the book of accounts for FY05, which had not been approved by the Commission in the Tariff Order for FY05. The actual consumption of these spares in FY05 was Rs 0.47 Cr, due to which the Petitioner had written off excess provision of Rs 9.53 Cr as non- tariff income in FY06. The same was included by the Commission in the approved non-tariff income for the year. The Petitioner has claimed that since the Commission had not considered the provision for these spares in R&M expenses for FY05, it should not have included Rs 9.53 Cr in the non-tariff income for FY06.

3.31 The ATE in its Order dated 23 May, 2007 held that the Commission has to concede to the prayer of the Petitioner for prior period adjustments (utilization of spares in capital works and R&M expenses) and excess provision written back.

3.32 In the MYT petition, the Petitioner has claimed for prior period adjustment and excess provision written back. The Petitioner has added spares of Rs 12.70 Cr and Rs 2.57 Cr in FY03 and FY04 respectively in the asset base and claimed depreciation on the same. The Petitioner has also claimed additional R&M expenses of Rs 6.81 Cr, Rs 0.20 Cr, Rs 0.47 Cr and Rs 0.65 Cr in FY03, FY04, FY05 and FY06 on account of adjustment in values of spares as per the Order of ATE. The Petitioner has reduced non-tariff income for FY06 by Rs 9.53 Cr.

3.33 The Commission directed the Petitioner to submit details of the capital schemes and R&M expenses where spares had been used with the documentary evidence supporting that these spares had been considered at zero value.

3.34 The Petitioner submitted letter no. RCM/07-08/1056 dated 12 February, 2008 to the Commission with the list of the schemes where the above mentioned stores and spares had been used. The Petitioner also submitted that these stores and spares were taken at zero value for capital and R&M works, even before the finalisation of valuation.

3.35 The Commission directed the Petitioner to certify its claim from the auditors. The Petitioner, in its letter no RCM/07-08/1074 dated 18 February, 2008 submitted the certificate from its auditor that spares were earlier taken at zero value. Hence, the Commission now approves additional capitalization of assets and R&M expenses. Since the payment was made by the Petitioner in FY05, the Commission has considered the same in asset capitalization of FY05 and increases asset capitalization for FY05 from Rs 165.84 Cr to Rs 181.11 Cr. The Commission also approves additional R&M expenses and reduction in non-tariff income for FY06 on account of excess provision written back as claimed by the Petitioner.

3.36 It was clarified in the Tariff Order dated 22 September, 2006 that the consideration of asset capitalization to the extent of Rs 312.41 Cr and Rs 350.00 Cr during FY06 and FY07 respectively, is for the purpose of determining the ARR and does not imply the Commission’s approval for assets capitalized during the year. The Commission had expressed that the details of actual assets capitalized for final adjustments would be separately examined at the time of truing up.

3.37 The Commission has analyzed in detail the schemes completed during the respective years. In its Tariff Order dated 22 September, 2006, the Commission had expressed the view that the EHV & HV schemes on completion should be considered for capitalization only on its commercial operation/charging to rated voltage after obtaining all necessary statutory clearances and compliance with the prevalent safety standards. The Commission in April and May, 2005 had prescribed certain formats for information with regard to capitalization of assets which inter-alia covered the execution of respective work as per the prevalent safety rules and laws of land. The Commission, in the said Tariff Order, had directed that from FY06 onwards the relevant information shall be furnished by the Petitioner in the formats so prescribed by the Commission for capitalization of assets. The said formats were to be submitted along with the necessary statutory clearances and certificates within one month from the date of issue of the said Order. The capital expenditure incurred for residual works within the original scope of scheme, shall be admitted on merits.

3.38 The Petitioner however, submitted the formats for capitalization of assets pertaining to FY06 and FY07 on 15 February, 2007 and 28 December, 2007 respectively. The relevant Electrical Inspector’s Certificate/ Clearance for the capitalization of EHV and HV schemes were submitted subsequently.

3.39 The case of capitalization of assets for FY06 and FY07 has been considered by the Commission in light of the directives contained in Tariff Order of FY07. The capitalisation of EHV and HV schemes has been considered on the availability of the relevant Electrical Inspector’s Certificate/Clearance for the respective financial year.

The carry forward of the balance capitalisation of assets from FY05 onwards has been appropriately factored in subsequent years.

3.40 In addition to the costly purchases effected from M/s Reliance Energy Limited (REL), the Commission, based on the documents/supportings furnished by the Petitioner, has observed that:

(a) The Labour, Civil & other charges (erecting, commissioning etc.) are found to be on a significantly higher side in proportion to the material cost. Further these charges are varying widely even in case of execution of similar schemes involving similar kind of work.

(b) In case of schemes involving underground cables, the cost of cable laying and road restoration charges, in totality, are on a higher side. Further in all EHV works, a component of miscellaneous charges has been added to the scheme cost even after accounting for all the cost components.

(c) For HVDS schemes the overall scheme cost has been noted to be significantly on a higher side. Further variations have been noted in case of the equipment/material details given in the relevant formats vis-à-vis the details in Electrical Inspector's Certificates for such similar schemes executed by the same agency in case of BRPL. Such variations have been noticed for schemes being considered for capitalisation beyond FY07.

3.41 In view of the above, appropriate deductions have been considered to evaluate the prudent cost which can be allowed for capitalisation of assets in the respective years. The Commission accordingly firms up the capitalisation of assets upto FY06 and approves the same on a provisional basis for FY07. While firming up the cpitalisaiotn for FY07, the impact of variations in equipment/ material details given in relevant formats submitted by the Petitioner vis-à-vis the details in Electrical Inspectors certificate will also be considered. However, the Commission shall consider capitalization of such schemes currently pending for capitalisation upto 31 March, 2007 (i.e., before commencement of the Control Period) in the financial year in which the relevant Electrical Inspector's Certificate is issued. The schemes proposed by the Petitioner for capitalisation during the Control Period as per the Business Plan, shall be trued up at the end of the Control Period as per the MYT Regulations, 2007.

3.42 The Commission has analysed the information submitted by the Petitioner and approves asset capitalisation of Rs. 87.92 Cr in FY06 and Rs. 141.08 Cr in FY07, based on the methodology elaborated above. The capital investment/ capitalisation approved by the Commission is after consideration of the disallowance as per findings of the Commission (as detailed in Annexure V to this Order).

3.43 The summary of opening balance of fixed assets, capital investment, asset capitalisation during the year, capital work in progress and closing balance of fixed assets for FY03, FY04, FY05, FY06 and FY07 is summarised in table given below:

**Table 10: GFA, CWIP approved by Commission (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| A. Opening Gross Fixed Asset | 360.00# | 382.70 | 461.52 | 642.63 | 730.55 |
| B. Opening Capital Work In Progress | 0.00 | 33.66 | 42.53 | 275.84 | 486.84 |
| C. Investment in the Year | 56.36 | 87.69 | 414.42 | 298.92 | 209.08 |
| D. Asset Capitalized | 22.70 | 78.82 | 181.11$ | 87.92 | 141.08* |
| E. Closing Capital Work In Progress (B+C-D) | 33.66 | 42.53 | 275.84 | 486.84 | 554.84 |
| F. Less: Asset Retirement | - | - | - | - | - |
| G. Closing Gross Fixed Asset (A+D-F) | 382.70 | 461.52 | 642.63 | 730.55 | 871.63 |

**Provisionally approved*

*#As per the Transfer Scheme*

*$ Includes capitalisation of Rs 15.28 Cr on account of additional capitalization due to revaluation of stores*

## Depreciation

3.44 The Commission in its previous Tariff Orders had maintained that depreciation being non-cash in nature, the amount set aside towards depreciation can be used for loan repayments. It does not affect the Petitioners tariff as all legitimate and prudent expenditure is considered for the purpose of determination of ARR. In view of the above and due to non-availability of fixed assets registers with details of historical costs for various categories of assets and CWIP, the Commission had determined depreciation on the opening Gross Fixed Assets (GFA) using a straight line method and a residual value of assets as 10%.

3.45 The depreciation as approved by the Commission in the previous Tariff Orders are shown in the table below:

**Table 11: Depreciation approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Opening GFA | Depreciation |
|---|---|---|---|
| FY03 | FY04 Tariff Order | 360.00 | 10.13* |
| FY04 | FY04 Tariff Order | 382.70 | 14.35 |
| | 1st True Up (FY05 Tariff Order) | 382.70 | 14.35 |
| FY05 | FY05 Tariff Order | 461.52 | 17.31 |
| | 1st True Up (FY06 Tariff Order) | 461.52 | 17.31 |
| | 2nd True Up (FY07 Tariff Order) | 461.52 | 16.16 |
| FY06 | FY06 Tariff Order | 687.32 | 32.2 |
| | 1st True Up (FY07 Tariff Order) | 627.36 | 30.03 |
| FY07 | FY07 Tariff Order | 939.77 | 43.14 |

** for 9 months*

3.46 The Petitioner appealed against the depreciation rate allowed by the Commission in the above Tariff Orders before the ATE.

3.47 The ATE in its Order dated 24 May, 2006 observed that the claim for accelerated depreciation by the distribution companies merits acceptance. There is no escape except to allow depreciation in terms of Schedule VI of the Electricity (Supply) Act, 1948. Though discretion is given to the Commission under Sub-Section 3 of Section 28 of DERA to depart from the above, but the Commission has not chosen to do so and, therefore, it follows that the Appellants are entitled to depreciation at the accelerated rate as notified by the Ministry of Power, Govt. of India. The ATE held that the Commission has to allow depreciation as per the Notification of the Ministry of Power issued in terms of paragraph (a) of paragraph (VI) of Sixth Schedule for the tariff period in question.

3.48 The Commission appealed against the above impugned Order in the Supreme Court of India in Civil Appeal No. 2733/06. The Supreme Court upheld the impugned Order dated 24 May, 2006 of the ATE and held that the Commission has to allow depreciation @ 6.69% for the entire Policy Direction Period. The Supreme Court was of the view that the Commission was not entitled to derive the rate from the fair life of the asset, however, it stated that its judgement is confined to the facts of the present case alone and the reasoning given is in the context of the period of 5 years. This judgement should not be construed to apply for all times. It is confined to the Policy Direction Period only.

3.49 In the MYT petition, the Petitioner has claimed the following year-wise depreciation based on the depreciation rates approved by the Ministry of Power for FY03, FY04, FY05, FY06 and FY07.

**Table 12: Depreciation claimed by Petitioner (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Depreciation | 20.35 | 30.09 | 37.19 | 48.98 | 83.57 |

3.50 The Commission directed the Petitioner to explain the methodology followed by it to arrive at the above mentioned figures.

3.51 In its response, the Petitioner submitted letter no RCM/07-08/846 dated 26 December 2007, detailing the methodology adopted by it for determination of depreciation.

3.52 The Petitioner explained that it has calculated depreciation, for any year, using the average GFA for the year and the depreciation rates approved by the Ministry of Power. The Petitioner has taken asset wise values of GFA from its audited accounts and has not considered the GFA approved by the Commission in the previous Tariff Orders.

3.53 For the purpose of determination of depreciation for the Policy Direction Period, the Commission is guided by the Supreme Court Order dated 15 February, 2007 in Civil Appeal No. 2733/2006 and subsequent Order of the ATE dated 23 May, 2007. The Supreme Court in its Order dated 15 February, 2007 upheld the rate of depreciation @ 6.69% for the entire Policy Direction Period. The ATE in its Order dated 23 May, 2007 held that the Commission has to allow carrying cost on such additional depreciation for the entire Policy Direction Period @ 9%. It also held that the Commission has to allow depreciation @ 6.69% and carrying cost @ 9% on assets acquired out of APDRP grants.

3.54 The Commission in its previous Tariff Orders had allowed depreciation on the basis of opening value of GFA. Further as per the Electricity (Supply) Annual Account Rules 1985,

*"Depreciation charge on a newly commissioned asset shall commence in the year immediately following the year of commissioning"*

3.55 In the Orders issued by the Supreme Court and the ATE, the Commission was directed to allow depreciation @ 6.69%.

3.56 In view of the Orders issued by the Supreme Court and the ATE, the Commission has allowed depreciation on the opening GFA for the year which includes assets created from APDRP grants @ 6.69% for the Policy Direction Period, along with carrying cost @ 9%.

3.57 Based on the above, the Commission now approves the following depreciation for the Policy Direction Period:

**Table 13: Depreciation now approved by Commission (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Opening GFA | 360.00 | 382.70 | 461.52 | 642.63 | 730.55 |
| Depreciation Rate (%) | 6.69% | 6.69% | 6.69% | 6.69% | 6.69% |
| Depreciation | 18.06* | 25.60 | 30.88 | 42.99 | 48.87 |
| Accumulated Depreciation | 88.06# | 113.66 | 144.54 | 187.53 | 236.40 |

*# Rs 70 Cr was accumulated depreciation as per Transfer Scheme*
** For 9 Months*

3.58 The ATE in its Order dated 23 May, 2007, held that the Commission has to allow depreciation for FY04 based on the first truing up. The Commission has followed the ATE and the Supreme Court Order for determination of depreciation for FY04, under which the Commission has approved depreciation @6.69% on the opening GFA (which includes assets created from the APDRP grants).

## Utilization of Depreciation

3.59 The Commission had prescribed in detail the priority of utilisation of depreciation in its previous Tariff Orders. The priority order of utilisation of depreciation has been summarised below:

(a) Loan Repayment, if any

(b) Working Capital Requirement

(c) Capital Investment

3.60 Loan repayment was considered based on actual repayment schedule of long term loans availed from financial institution/lenders. In case of notional loan, the average notional repayment period of 3 years was considered (considering the gestation period of commissioning of distribution assets and the average pay back period of 3 years) commencing from the next financial year after drawdown of loans for funding through notional loans.

3.61 The working capital requirement were estimated by considering two months stores (R&M expenses) and one month cash expenses i.e., salary, A&G and R&M expenses. The Commission had provided funding of Rs 40.64 Cr towards working capital requirement by utilizing depreciation of Rs 10.13 Cr in FY03, Rs 14.35 Cr in FY04 and Rs 17.31 Cr in FY05.

3.62 The remaining unutilized depreciation (after loan repayment and funding for working capital) was considered for capital expenditure.

3.63 The Commission has followed the same methodology for utilization of depreciation while truing up for the Policy Direction Period. The utilisation of depreciation as proposed in the MYT petition by the Petitioner (letter dated 26 December, 2007) and as considered by the Commission is summarised in table below:

**Table 14: Utilization of Depreciation (Rs Cr)**

| | Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|---|
| Petitioner | Depreciation Claimed | 20.35 | 30.09 | 37.18 | 48.98 | 83.57 |
| | Utilized for Debt Repayment | - | - | - | 35.0 | 55.0 |
| | Utilized for Working Capital Requirement | 10.0 | 14.4 | 17.3 | - | - |
| | Utilized for Capital Investment | 10.30 | 15.7 | 19.9 | 14.0 | 28.6 |
| | Un-utilized Depreciation | - | - | - | - | - |
| | Cumulative Un-utilized Depreciation | - | - | - | - | - |
| Commission | Depreciation Approved | 18.06 | 25.60 | 30.88 | 42.99 | 48.87 |
| | Utilized for Debt Repayment | - | 2.50 | 4.78 | 4.78 | 5.18 |
| | Utilized for Working Capital Requirement | 10.13 | 14.35 | 17.31 | - | - |
| | Utilized for Capital Investment | 7.93 | 8.76 | 8.79 | 38.21 | 43.69 |
| | Un-utilized Depreciation | - | - | - | - | - |
| | Cumulative Un-utilized Depreciation | - | - | - | - | - |

## Means of Finance

3.64 The Commission had prescribed in detail the priority order for means of finance in its previous Tariff Orders which is summarised below:

(a) Consumer Contribution

(b) APDRP Grant / Loan

(c) Unutilised Depreciation including available unutilised depreciation of the previous years

(d) Balance Funds required - balance fund requirement is assumed to be met through a mix of debt and equity by applying a normative debt to equity ratio of 70:30

3.65 The Commission had also included the funding through sundry creditors (closing value of the year) as a means of finance for capital investment of the year. The Commission had allowed financing requirement on the fresh capital investment approved for the year and the closing value of the sundry creditors of the previous year.

3.66 The total financing requirement approved by the Commission in previous Tariff Orders are shown below:

**Table 15: Financing approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Approved Capital Investment (Including IDC & Establishment Expenses | Sundry Creditors in Previous Year | Total Financing Requirement |
|---|---|---|---|---|
| FY03 | FY04 Tariff Order | 56.36 | - | 51.16 |
| FY04 | FY04 Tariff Order | 348.09 | - | 287.35 |
| | 1st True Up (FY05 Tariff Order) | 87.69 | - | 87.69 |
| FY05 | FY05 Tariff Order | 567.95 | - | 567.98 |
| | 1st True Up (FY06 Tariff Order) | 415.55 | - | 415.78 |
| | 2nd True Up (FY07 Tariff Order) | 412.09 | - | 412.09 |
| FY06 | FY06 Tariff Order | 448.64 | 133.25 | 583.25 |
| | 1st True Up (FY07 Tariff Order) | 316.41 | 104.32 | 420.74 |
| FY07 | FY07 Tariff Order | 223.69 | 65.74 | 289.43 |

3.67 The means of finance approved by the Commission in previous Tariff Orders are shown below:

**Table 16: Means of Finance approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Financing Requirement | Consumer Contribution | APDRP Funds | Sundry Creditors | Depreciation | Internal Accrual | Debt |
|---|---|---|---|---|---|---|---|---|
| FY03 | FY04 Tariff Order | 51.16 | 8.00 | - | - | - | 12.95 | 30.21 |
| FY04 | FY04 Tariff Order | 287.35 | 10.67 | 130.98 | - | - | 22.43 | 123.28 |

| Year | Tariff Order | Financing Requirement | Consumer Contribution | APDRP Funds | Sundry Creditors | Depreciation | Internal Accrual | Debt |
|---|---|---|---|---|---|---|---|---|
| | 1st True Up (FY05 Tariff Order) | 87.69 | 13.91 | 32.44 | - | - | 12.40 | 28.94 |
| FY05 | FY05 Tariff Order | 567.98 | 13.91 | 109.70 | - | - | 36.51 | 407.88 |
| | 1st True Up (FY06 Tariff Order) | 415.78 | 34.48 | - | 133.25 | - | 36.51 | 211.54 |
| | 2nd True Up (FY07 Tariff Order) | 386.84 | 34.48 | - | 104.32 | - | 36.51 | 211.53 |
| FY06 | FY06 Tariff Order | 583.25 | 20.00 | - | - | 32.20 | 30.93 | 500.13 |
| | 1st True Up (FY07 Tariff Order) | 420.74 | 17.35 | - | 65.74 | - | 30.93 | 306.71 |
| FY07 | FY07 Tariff Order | 289.43 | 40.00 | - | 45.22 | - | 36.31 | 167.90 |

3.68 The Petitioner in the MYT petition has recast the means of finance for the Policy Direction Period based on the additional depreciation claimed by the Petitioner.

3.69 The Commission directed the Petitioner to submit details of recasting of means of finance done by it. The Petitioner submitted the following means of finance for the Policy Direction Period vide letter no RCM/07-08/846 dated 26 December, 2007:

**Table 17: Means of Finance claimed by Petitioner (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Capital Expenditure | 57.6 | 85.3 | 416.0 | 357.4 | 282.6 |
| Funding | | | | | |
| APDRP Loans | - | 16.2 | - | - | |
| Grants | - | 16.2 | - | - | |
| Depreciation | 10.3 | 15.7 | 19.9 | 14.0 | 28.57 |
| Consumer Contribution | 8.0 | 13.9 | 34.5 | 17.4 | 21.26 |
| Internal Accruals | 11.8 | 7.0 | 41.8 | 30.7 | 36.04 |
| Loan | 27.5 | 16.3 | 319.9 | 295.4 | 196.75 |
| **Total** | **57.6** | **85.3** | **416.0** | **357.4** | **282.6** |

3.70 Based on the revised means of finance, the Petitioner has proposed revised return on equity for the Policy Direction Period. The Petitioner has also revised the loan requirement for each year although it has not made any change in the interest expenses approved by the Commission based on loans allowed in the previous Tariff Orders.

3.71 The Commission has done recasting of the means of finance based on the additional depreciation allowed by the Commission in this Order. The means of finance now approved by the Commission for the Policy Direction Period are shown below:

**Table 18: Means of Finance now approved by Commission (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Capital Expenditure (Including IDC and Establishment Expenses) | 56.36 | 87.69 | 414.42 | 298.92 | 209.08 |
| Closing value of Sundry Creditors in Previous Year | - | - | | 104.32 | 85.48 |
| Financing Required | 51.61 | 87.69 | 414.42 | 403.24 | 294.56 |
| Funding | | | | | |
| Consumer Contribution | 8.00 | 13.91 | 34.48 | 17.35 | 21.25 |
| APDRP Grants | - | 16.22 | - | - | |
| APDRP Loans | - | 16.22 | - | - | |
| Depreciation | 7.93 | 8.76 | 8.79 | 38.21 | 43.69 |
| Internal Accruals | 10.70 | 9.78 | 40.19 | 30.72 | 36.07 |
| Loan | 24.97 | 22.81 | 226.64 | 231.47 | 193.55 |
| Closing value of Sundry Creditors in Year End | - | - | 104.32 | 85.48 | 0.00 |
| **Total** | **51.61** | **87.69** | **414.42** | **403.24** | **294.56** |

## Interest Expenditure

3.72 The Commission has approved following interest expenditure in the previous Tariff Orders:

**Table 19: Interest Expenses approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Approved Loan for Investment (Excluding APDRP) | APDRP Loan | Approved Interest Expenditure |
|---|---|---|---|---|
| FY03 | FY04 Tariff Order | 30.21 | - | 2.48 |
| FY04 | FY04 Tariff Order | 123.28 | 65.49 | 15.44 |
| | 1st True Up (FY05 Tariff Order) | 28.94 | 16.22 | 5.05 |
| FY05 | FY05 Tariff Order | 407.88 | 54.85 | 28.7 |
| | 1st True Up (FY06 Tariff Order) | 211.54 | - | 9.20 |
| | 2nd True Up (FY07 Tariff Order) | 211.54 | - | 2.47 |
| FY06 | FY06 Tariff Order | 500.12 | - | 50.36 |
| | 1st True Up (FY07 Tariff Order) | 306.71 | - | 16.16 |
| FY07 | FY07 Tariff Order | 167.90 | - | 56.98 |

3.73 Although the Petitioner has recast its means of finance for the Policy Direction Period using additional depreciation claimed in the petition, it has not reduced the corresponding interest expenditure.

3.74 The Commission has now calculated the interest expenditure based on the means of finance approved in this Tariff Order. It has considered the loan requirement of the Petitioner based on the approved means of finance. For each year, the Commission has sorted the actual loans taken by the Petitioner as per their date of drawl and has allowed loans till the cumulative value of loans reached the value of debt now approved by the Commission.

3.75 The Commission has observed that most of the loans taken by the Petitioner during FY03-FY07 are short term loans and repayment of these loans had been done by taking new loans. The Petitioner has availed total loan of Rs 350 Cr in FY05, which had repayment period of one year and required a bullet payment. Thus, the loan repayment made by the Petitioner in FY06 was Rs 350 Cr. In FY06, the Petitioner had taken total loan of Rs 500 Cr, of which Rs 200 Cr was short term loan where the Petitioner had to repay the loan in one year under bullet payment. Loan repayment made by the Petitioner during FY07 was Rs 200 Cr. Similarly for FY07, the Petitioner had taken total loan of Rs 365 Cr, of which Rs 100 Cr was short term loan where the Petitioner had to repay the loan in one year under bullet payment.

3.76 The Commission has approved normative loans of Rs 24.97 Cr for FY03 as the means of finance for the capital expenditure incurred during the year as the Petitioner has not taken any loan during this period. For this loan, the Commission has considered one year moratorium period and repayment period of 10 years. The Commission also approves interest rate of 11% for FY03 as allowed in the Tariff Order for FY04.

3.77 For FY04, the Commission has approved normative loans of Rs 22.81 Cr as the means of finance for the capital expenditure incurred during the year as the Petitioner has not taken any loan during this period. For this loan, the Commission has considered one year moratorium period and repayment period of 10 years. The Commission approves interest rate of 9% for FY04 for normative loans as allowed in the Tariff Order for FY05. The Commission also approves APDRP loan of Rs 16.22 Cr as taken by the Petitioner for FY04.

3.78 For FY05 onwards, the Commission has considered interest rate for the normative loans equal to the weighted average interest rate of the loans approved by the Commission for these years.

3.79 For FY05, the Commission has approved the total debt financing of Rs 226.64 Cr for the capital expenditure as per the means of finance approved for the year. Total debt taken by the Petitioner in FY05 was Rs 350 Cr As the total debt taken by the Petitioner was higher than the debt approved, the Commission has sorted the actual loans taken by the Petitioner as per their date of drawl and has allowed loans till the cumulative value of loans reached the value of debt now approved by the Commission.

3.80 The Commission has considered that loans of Rs 226.64 Cr approved by the Commission for FY05 were refinanced by the Petitioner during FY06. Other than this, the Commission has considered repayment of Rs 4.78 Cr on account of normative loans. The Petitioner has taken new loans of Rs 500 Cr in FY06 out of which Rs 226.64 Cr has been considered by the Commission for refinancing the earlier loans. Repayment of the normative loans has been considered through depreciation. For FY06, the Commission has approved debt of 231.47 Cr for the capital expenditure. Thus, the total loan amount approved by the Commission for FY06 is Rs 458.11 Cr (Rs 226.64 Cr + Rs 231.47 Cr). As the total debt taken by the Petitioner is higher than the debt approved, the Commission has sorted the actual loans taken by the Petitioner as per their date of drawl and has allowed loans till the cumulative value of loans reached the value of debt now approved by the Commission.

3.81 The Commission has considered that loans of Rs 200 Cr approved by the Commission for FY06 were refinanced by the Petitioner during FY07. Other than this, the Commission has considered repayment of Rs 5.18 Cr on account of normative loans. The Petitioner has taken new loans of Rs 365 Cr in FY07 out of which Rs 200 Cr has been considered by the Commission for refinancing the earlier loans. Repayment of the normative loans has been considered through depreciation. For FY07, the Commission has approved debt of 193.55 Cr for the capital expenditure. Thus, the total loan amount approved by the Commission for FY07 is Rs 393.55 Cr (200+193.55). As the total debt taken by the Petitioner is lower than the debt approved, the Commission approves normative loan of Rs 28.55 Cr for FY07. For this loan, the Commission has considered one year moratorium period and repayment period of 10 years. It has also considered interest rate for this normative loan equal to the weighted average interest rate of the loan approved by the Commission for the respective years.

3.82 The outstanding DPCL loan for the Petitioner as per the Transfer Scheme was Rs 174 Cr at the interest rate of 12%. This loan was interest free for the first 4 years of the Policy Direction Period and interest and principle payment was due from 1 July, 2007 onwards. The Commission, in its previous Tariff Order, has directed the Petitioner to refinance the loan. Following the direction, the Petitioner has refinance the DPCL loan from IDBI at interest rate of 9.15% with repayment period of 9 years and half yearly instalments on 1 November, 2007. The Petitioner has paid interest of Rs 13.82 Cr on account of DPCL loan and IDBI loan (used for refinancing DPCL loan).

**Table 20: Loan Details (Rs Cr)**

| Year | Financing Approved | Debt Approved | Loan Details | | | |
|---|---|---|---|---|---|---|
| | | | Source | Amount | Interest Rate | Repayment Details |
| FY03 | 51.61 | 24.97 | Notional | 24.97 | 11.00% | Moratorium Period 1 Year, Repayment Period 10 Years. |
| FY04 | 87.69 | 39.03 | APDRP | 16.22 | 11.50% | Moratorium Period 24 months, Repayment Period 20 Years |
| | | | Notional | 22.81 | 9.00% | Moratorium Period 1 Year, Repayment Period 10 Years. |
| FY05 | 414.42 | 226.64 | SBP | 20.00 | 6.00% | Bullet Repayment, Repayment Period 1 Year |
| | | | PNB | 50.00 | 6.75% | |
| | | | BOB | 50.00 | 6.75% | |
| | | | PNB | 106.64 | 7.00% | |
| FY06 | 403.24 | 231.47 | SBP | 10.00 | 6.80% | Bullet Payment. Repayment Period 1 |

| Year | Financing Approved | Debt Approved | Loan Details | | | |
|---|---|---|---|---|---|---|
| | | | Source | Amount | Interest Rate | Repayment Details |
| | | | | | | Year |
| | | | SBP | 20.00 | 6.80% | Bullet Payment. Repayment Period 1 Year |
| | | | SBP | 70.00 | 7.00% | Bullet Payment. Repayment Period 1 Year |
| | | | BOP | 100.00 | 8.75% | Bullet Payment. Repayment Period - 1 Year |
| | | | PNB | 258.11 | 8.75% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 29 Mar 08 |
| FY07 | 294.56 | 193.55 | CBP | 30.00 | 9.35% | Bullet Payment. Moratorium period 5 Yrs, Repayment Period 5 Year |
| | | | SBP | 100.00 | 8.90% | Bullet Payment. Repayment Period 1 Year |
| | | | BOB | 100.00 | 9.61% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 7 Aug 08 |
| | | | BOB | 10.00 | 9.61% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 10 Aug 08 |
| | | | BOB | 25.00 | 9.61% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 17 Aug 08 |
| | | | BOB | 50.00 | 9.61% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 17 Oct 08 |
| | | | PNB | 50 | 10.76% | Quarterly Repayment, Moratorium period 24 Months. Repayment Period 7.75 Yrs, effective from 29 Mar 09 |
| | | | Notional | 28.55 | 9.50% | Quarterly Repayment, Moratorium period 12 Months. Repayment Period 10Yrs, |
| | | | DPCL / IDBI | 174.00 | 12%/ 9.15% | Half Yearly Repayment. Repayment Period 9Yrs, |

3.83 The interest expenditure now approved by the Commission based on the loans considered above for Policy Direction Period is shown below:

**Table 21: Interest Expenses now approved by the Commission (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Interest Expenditure | 1.03 | 4.13 | 6.43 | 25.50 | 73.92 |

3.84 The ATE in its Order dated 23 May, 2007, held that the Commission has to allow interest expenses for FY04 based on the actual values. The Commission has allowed actual interest expenditure for FY04 based on the approved capital investment and recasting of the means of the finance. The recasting of the means of finance was also proposed by the Petitioner using the same principle. The Commission has allowed normative interest on the normative loans approved by the Commission.

## Return on Equity

3.85 In the previous Tariff Orders, the Commission had been allowing return on equity at 16% on the initial equity (as per the Transfer Scheme) and on the average of opening and closing free reserves used for funding capital investments.

3.86 The return on equity allowed by the Commission in the previous Tariff Orders for the Petitioners are shown in the table below:

**Table 22: Return on Equity approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Equity Capital | Opening Free Reserve | Addition to Free Reserve (Investment through Internal Accrual) | Closing Free Reserve | Average Equity (Equity Capital + Average Free Reserve) | 16% Return on Average Equity |
|---|---|---|---|---|---|---|---|
| FY03 | FY04 Tariff Order | 116.00 | - | 12.95 | 12.95 | 122.48 | 14.70* |
| FY04 | FY04 Tariff Order | 116.00 | 12.95 | 22.43 | 35.38 | 140.17 | 22.43 |
| | 1st True Up (FY05 Tariff Order) | 116.00 | 12.95 | 12.40 | 25.35 | 135.15 | 21.62 |
| FY05 | FY05 Tariff Order | 116.00 | 25.35 | 36.51 | 61.86 | 159.61 | 25.54 |
| | 1st True Up (FY06 Tariff Order) | 116.00 | 25.35 | 36.51 | 61.86 | 159.61 | 25.54 |
| | 2nd True Up (FY07 Tariff Order) | 116.00 | 25.35 | 36.51 | 61.86 | 159.60 | 25.54 |
| FY06 | FY06 Tariff Order | 116.00 | 61.86 | 30.93 | 92.79 | 193.32 | 30.93 |
| | 1st True Up (FY07 Tariff Order) | 116.00 | 61.86 | 30.93 | 92.79 | 193.32 | 30.93 |
| FY07 | FY07 Tariff Order | 116.00 | 92.79 | 36.31 | 129.10 | 226.94 | 36.31 |

**For 9 Months*

3.87 The Petitioner has projected the revised return on equity based on the proposed recasting of the means of finance. The return on equity proposed by the Petitioner is shown in the table below:

**Table 23: Return on Equity claimed by Petitioner (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Equity Capital | 116.0 | 116.0 | 116.0 | 116.0 | 116.0 |
| Opening Free Reserve | - | 11.8 | 18.8 | 60.6 | 91.3 |
| Addition to Free Reserve | 11.8 | 7.0 | 41.8 | 30.7 | 36.0 |
| Closing Free Reserve | 11.8 | 18.8 | 60.6 | 91.3 | 127.3 |
| Average Equity (Equity Capital + Average Free Reserve) | 121.9 | 131.3 | 155.7 | 191.9 | 225.3 |
| **16% Return on Average Equity** | **14.63*** | **21.00** | **24.90** | **30.70** | **36.04** |

**For 9 Months*

3.88 The Commission now approves the following return on equity based on the recasting of the means of finance approved by the Commission:

**Table 24: Return on Equity now approved by Commission (Rs Cr)**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Equity Capital | 116.0 | 116.0 | 116.0 | 116.0 | 116.0 |
| Opening Free Reserve | 0.00 | 10.70 | 20.48 | 60.67 | 91.39 |
| Addition to Free Reserve | 10.70 | 9.78 | 40.19 | 30.72 | 36.07 |
| Closing Free Reserve | 10.70 | 20.48 | 60.67 | 91.39 | 127.46 |
| Average Equity (Equity Capital + Average Free Reserve) | 121.35 | 131.59 | 156.57 | 192.03 | 225.43 |
| **16% Return on Average Equity** | **14.56*** | **21.05** | **25.05** | **30.72** | **36.07** |

**For 9 Months*

## Employee Expenses

3.89 The Commission had approved following employee expenses for the Petitioner in the previous Tariff Orders:

**Table 25: Employee Expenses approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Gross Employee Expenses |
|---|---|---|
| FY03 | FY04 Tariff Order | 80.92 |
| FY04 | FY04 Tariff Order | 125.89 |
| | 1st True Up (FY05 Tariff Order) | 114.15 |
| FY05 | FY05 Tariff Order | 131.89 |
| | 1st True Up (FY06 Tariff Order) | 133.84 |
| | 2nd True Up (FY07 Tariff Order) | 119.44 |
| FY06 | FY06 Tariff Order | 138.12 |
| | 1st True Up (FY07 Tariff Order) | 128.13 |
| FY07 | FY07 Tariff Order | 136.76 |

3.90 The Petitioner challenged the methodology adopted by the Commission in allowing employee expenses in Tariff Order for FY07, in the ATE vide appeal no. 267/2006 reasoning that no justification has been provided by the Commission for the second true up. The Petitioner also contended that *second truing up is warranted only when there is difference between provisional accounts on the basis of which the first truing up is done and audited accounts which may, have been furnished after such truing up. In the present case admittedly there has not been any substantial change between the provisional accounts and the audited accounts. The Commission has done the second truing up on the basis of a revised policy.*

3.91 The ATE in its Order dated 23 May, 2007, held that the Commission has to allow employee expenses without changing the policy adopted for truing up.

3.92 In the MYT petition, the Petitioner has claimed following employee expenses for FY05, FY06 and FY07:

**Table 26: Employee Expenses claimed by Petitioner (Rs Cr)**

| Particulars | FY05 | FY06 | FY07 |
|---|---|---|---|
| Employee Expenses | 133.84 | 133.65 | 142.86 |

3.93 The Petitioner, subsequently, during the analysis of the petition has submitted the revised values for employee expenses vide letter dated 26 December, 2007 as Rs. 123.86 Cr for FY06 and FY Rs. 107.08 Cr for FY07.

3.94 As per the ATE Order dated 23 May, 2007, the Commission approves gross employee expenses for FY05 at Rs 133.84 Cr and capitalization of employee expenses of Rs 6.53 Cr as approved in first truing up of FY05 employee expenses in FY06 Tariff Order.

3.95 The Commission has approved the employee expenses of Rs 142.52 Cr for FY06 using the same approach as followed in previous Tariff Orders. Under this approach, the expenses on account of implementation of SVRS scheme are to be met from the savings achieved in employee expenses due to the reduction in number of employees. The Commission has accordingly allowed employee expenses without taking into consideration the SVRS costs and the savings in employee costs due to the scheme. The Commission has assumed 3% increase in the basic salary over the basic salary approved in FY05,Dearness Allowance at 21% of the basic salary and terminal benefits and other staff cost in the same ratio of basic salary as in the FY05. The Commission has approved capitalization of employee expenses of Rs 10.29 Cr as submitted by the Petitioner in the MYT petition.

3.96 Details of employee expenses approved now by the Commission for FY05 and FY06 are shown below:

**Table 27: Employee Expense now approved by Commission for FY05 & FY06 (Rs Cr)**

| Particulars | FY05 | FY06 |
|---|---|---|
| Basic Salary | 64.75 | 66.69 |
| Dearness Allowance | 9.07 | 14.01 |
| Terminal Benefits | 11.77 | 12.12 |

| Particulars | FY05 | FY06 |
|---|---|---|
| Other Staff Costs | 48.25 | 49.70 |
| **Gross Employee Expenses** | **133.84** | **142.52** |
| Less: Expenses Capitalized | 6.53 | 10.29 |
| **Net Employee Expenses** | **127.31** | **132.23** |

**Special Voluntary Retirement Scheme (SVRS) Related Expenses**

3.97 The Petitioner has incurred an outgo of Rs. 94.83 Cr towards Special Voluntary Retirement Scheme (SVRS) offered to its employees in FY04. The Petitioner, in its petition for FY05, had submitted that it would not claim the amount of SVRS outgo in the ARR and had taken commercial loans at an interest rate of 8% with tenure of 2-3 years to fund this liability. The Petitioner had further submitted that in case the SVRS outgo is spread over a number of years, it would ensure that the consumers do not have to bear any cost over and above the employee expenses that would have been incurred, had these employees continued in service. The Petitioner had also considered the increase in salaries, DA and other perks and retirement profile of employees while computing the savings from SVRS.

3.98 The Commission approved the above mentioned methodology and allowed employee expenses in FY04, FY05 and FY06 accordingly.

3.99 The Commission directed the Petitioner to submit details regarding SVRS expenses and its amortization in previous years.

3.100 The Petitioner vide letter no RCM/07-08/828 dated 20 December, 2007 submitted the details of amortization of SVRS expenses. The Petitioner has submitted that its actual employee expenses for FY04, FY05, FY06 and FY07 was Rs 102.18 Cr, Rs 83.90 Cr, Rs 92.95 Cr and Rs 107.08 Cr respectively. In addition to the employee expenses, the Petitioner has also incurred bill distribution and meter reading expenses of Rs 4.71 Cr, Rs 3.15 Cr, Rs 0.28 Cr and Rs 0.28 Cr for FY04, FY05, FY06 and FY07 respectively. The Petitioner also claimed the payment of terminal benefits of Rs 14.7 Cr, Rs 12.40 Cr and Rs 10.61 Cr for FY05, FY06 and FY07 respectively.

3.101 The Commission directed the Petitioner to reconcile the figures quoted in the above letter with the audited accounts. In response, the Petitioner submitted letter no RCM/06-07/1101 dated 19 February, 2008 and revised the payment of terminal benefits for FY07 to Rs 11.9 Cr. The Petitioner also corrected the bill distribution and meter reading expenses which were claimed erroneously for FY06 and FY07 and expenses against these heads are zero.

3.102 The ATE in its Order dated 23 May, 2007 held that the Commission has to allow all actual expenses towards employee cost including contractual employees. As per the ATE Order, the Commission allows the contractual employee expenses (bill distribution and meter reading expenses) while computing the savings available for SVRS expense amortization.

3.103 The table below shows the amortization of SVRS expenses till FY06 against the now approved employee expenses by the Commission:

**Table 28: SVRS Amortization (Rs Cr)**

| Particulars | FY04 | FY05 | FY06 |
|---|---|---|---|
| A. Gross Employee Expenses Approved | 114.15 | 133.84 | 142.52 |
| B. Gross Actual Employee Expenses | 102.18 | 83.90 | 92.95 |
| C. Bill Distribution And Meter Reading Expenses | 4.71 | 3.15 | |
| D. Saving available for SVRS amortization (A – B – C) | 7.26 | 46.79 | 49.57 |
| **SVRS** | | | |
| E. Opening SVRS Amount | 94.83 | 89.67 | 48.19 |
| F. Carrying Cost (@8%) | 2.10 | 5.30 | 1.87 |
| G. Unrecovered SVRS Amount (E + F – D) | 89.67 | 48.19 | 0.49 |

3.104 The unamortized SVRS amount at the end of FY06 is Rs 0.49 Cr which the Commission has allowed while truing up of employee expenses for FY07 along with the carrying cost of Rs. 0.02 Cr (Refer Table 29).

3.105 In addition to the one time payment of Rs 94.83 Cr, the Petitioner has also claimed the payment of Pension/Medical /LTA to VSS retirees. The amount claimed by the Petitioner under this head is Rs 14.70 Cr, Rs 12.40 Cr and Rs 11.90 Cr for FY05, FY06 and FY07 respectively.

3.106 The matter of aforesaid additional liabilities was argued before the Hon'ble High Court of Delhi which has pronounced its judgement on the issues of payment of terminal benefits including pension, gratuity, earned leave, etc. to the VSS optees. The High Court observed that the optees do not fall within the description of those voluntarily retiring as per conditions of service existing as on 1 July, 2002; they were induced to contractually depart from employment. The Trust is not geared to bear this sudden and substantial, unilaterally created burden; the GoNCTD, too is not liable in terms of the Act or Rule 6(9) to fund the payment of terminal benefits, of such VRS/SVSS optees. The severance being achieved through contract between the DISCOMs and the employees, the liability for payment of terminal benefits, as well as commutation of pension and monthly residual pension, is that of the DISCOMs.

3.107 The Hon'ble High Court in its Order dated 2 July, 2007 has directed as follows:

(a) The Pension Trust and GoNCTD are not liable to make payment towards terminal benefits and residual pension arising to those who opted VRS/VSS, formulated by the DISCOMs. The employees of the DISCOMs who opted for VRS/VSS and were relieved from employment are entitled to payment of terminal dues (which expression would include all accrued benefits such as gratuity, provident fund, leave travel concession, leave encashment, payment towards medical facilities, commutation of pension and residual pension and such other payments as they are entitled to in terms of the protected terms and conditions of service under the Act and Rules) from the date of their respective severance from employment. Such date of severance shall be hereafter referred to be called entitlement date.

(b) It is open to the DISCOMs to adopt the IPGCL Model of paying pension, gratuity, leave encashment and other liabilities to the optees, in terms of the letter of the GoNCTD dated 11 November, 2004.

(c) The DISCOMs shall indicate to the Pension Trust, in writing within two weeks from the date of this judgement whether they are willing to accept IPGCL Model or not.

(d) In the event of the Petitioner not accepting the IPGCL Model they shall be liable to pay additional contributions to the Pension Trust (second option).

(e) For the purpose of deciding the additional contribution to the pension trust on account of all the terminal benefits and liabilities due to such optees, the matter shall be referred to the arbitral tribunal. The arbitral tribunal shall complete its proceedings and publish its award within six months from the date of its constitution.

(f) The liability to pay residual pension i.e. monthly pension from the date of this judgement in the event the DISCOMs exercise the second option i.e. of going in for actuarial calculation; shall be borne by the Petitioner for the period till the award is published by the Tribunal and payment made to the trust on the basis of such award, by the concerned Petitioner.

(g) The payments made by the DISCOMs to the optees shall also be subject to suitable adjustment/reckoning for the actuarial exercise adjudication by the Tribunal.

(h) The liability of the Trust to make payments to the VRS/VSS optees shall arise after the Petitioner deposits the amount determined as additional contributions with the pension trust.

(i) The VRS optees are entitled to interest on terminal benefits, arrears of pension etc @ 8% p.a. from the date of entitlement to payment. This shall be paid by the DISCOMs.

3.108 The Commission directed BRPL, BYPL and NDPL to file the details of additional Trust liabilities and other expenses related to SVRS in the previous Tariff Order of FY07.

3.109 The DISCOMs (BRPL, BYPL and NDPL) have opted for second option of actuarial valuation of the liabilities. The nomination for the arbitral tribunal to be formed pursuant to the directions of the High Court is under progress.

3.110 In a letter dated 4 February, 2008, NDPL has submitted to the Commission that;

*"……The matter of aforesaid additional liabilities was argued before the Hon'ble High Court of Delhi which has pronounced its judgment on the issue of payment of terminal benefits including pension, Gratuity, Earned Leave etc to the VSS Optees on July 2, 2007, giving the DISCOMs the option to follow any of the following two models for making payment of additional liability imposed in the Trust due to acceleration of retirement:*

***(i) IPGCL Model (as adopted by IPGCL):***

*Full terminal benefits (other than monthly Pension) to be paid by DISCOMs which shall be reimbursed to DISCOMs by the Trust without interest on normal retirement age of 60 years/ death of such VSS optees:*

*DISCOMs to pay Residual Pension (i.e. monthly pension) till date of normal retirement, after which the Trust shall commence payment. This amount (i.e. Residual Pension) shall not be reimbursable by the Trust and shall be a cost to the Discom…….*

***(ii) Actuarial Model:***

*Pension trust to pay the Terminal Benefits subject to DISCOMs compensating the Trust for the additional burden on a one time lump-sum basis.*

*Additional Contribution required from DISCOMs on account of premature payout by the Trust (i.e. additional burden on the Trust) to be computed by Arbitral Tribunal of Actuaries which shall publish its award within six months from date of constitution.*

*Under this model, a lump-sum amount, as determined by the Tribunal, shall have to be paid by the Discom to the Trust to compensate it for additional burden arising on it due to accelerated retirements. Thereafter, the Trust shall need to refund to the DISCOMs the annual pension, etc. together with terminal benefits (gratuity, earned leave, etc.) already paid to the VRS Optees.*

*Consequently, under the Actuarial Model, the net lump-sum amount paid to the Trust together with carrying cost thereon shall need to be allowed in the ARR.*

*……..NDPL has intimated the Hon'ble High Court that it shall make payment to the Trust towards its additional liabilities due to VSS as determined by the Actuarial Tribunal.*

*Consequently, it is requested that the additional liability under the Actuarial Model need to be allowed in ARR during the MYT period……"*

3.111 In a letter dated 12 February, 2008, BRPL and BYPL have submitted to the Commission that;

*"……The Hon'ble High Court held that "The Pension Trust and GNCT are not liable to make payment towards terminal benefits and residual pension arising to those who opted VRS/VSS, formulated by the Petitioners DISCOMs". The DISCOMs have been given a choice of adopt IPGCL Model or pay additional contributions to the pension trust in a manner determined by the Hon'ble High Court. The petitioner has opted for the second option wherein the actuarial valuation of the liabilities as it is more cost effective with much lower liability than the first option of the IPGCL model. The nomination for the committee to be formed pursuant to the directions of the High Court order (order dated 2nd July 2007) is under process and the Honorable Commission would be apprised of the progress from time to time*

*The petitioner in its MYT submission had estimated the additional liability at Rs 51 Crores in addition to the existing arrangement of pension payment to the SVRS optees up-to the date of there notional superannuation…*

*The petitioner had submitted that*

a. *it would be releasing Rs 20.67 Crores (Rs 12.38 Crores for BRPL and Rs 8.29 Crores for BYPL) within one week of passing the order*
b. *The balance amount of Rs 93 Crores (Rs 54.8 Crores for BRPL and Rs 38.31 Crores for BYPL) towards gratuity and commutation of pension shall be paid within four weeks of passing of the order in terms of the proposed settlement.*
c. *The above figures are tentative and final liability would be based on the actuarial valuation of the committee.*

*The petitioner would continue to pay pension pursuant to the high court order to individual employee who had opted for SVRS up-to the date of notional superannuation…"*

3.112 The Commission based on its understanding of the issue, believes that the Petitioner will be required to pay monthly pension till the outcome of the award of the tribunal. The tribunal will be deciding the lump sum amount which the Petitioner will be required to pay for transfering all pension and terminal benefit liability to the Pension Trust. This lump sum amount will be for the additional pension requirement for the period before the actual superannuation of the VSS optees and for shifting terminal benefits of the VSS optees from the superannuation date to an early date. The monthly pension payments being made to VSS opteees shall be appropriatelty taken up before the proceedings of the Tribunal by the Peititioner.

3.113 The Commission now allows the monthly pension provisionally subject to the outcome of the Tribunal award with the condition that any refund/relief provided on this account to the Petitioner by the Trust will be available for adjustment in the future employee expenses. The Petitioner is paying monthly pension to the SVRS optees from FY05 onwards. The Commission is approving the monthly pension payment to SVRS optees in the truing up of FY07. The Commission has considered carrying cost of 8% per annum for the arrears of pension payment in FY05 and FY06 which is equal to carrying cost proposed by the Petitioner for amortization of SVRS expenses.

3.114 On the issue of payment of the terminal benefits by the Petitioner, the actual liability of the Petitioner towards the trust shall be determined by the tribunal at a future date. The Petitioner has been uncertain about the time of constitution of the Tribunal. The Commission recognises that delay in constitution of the tribunal is getting translated into more intervening monthly pension payments by the Petitioner and is increasing the burden on the tariff. The Commission therefore directs the Petitioner to expedite the constitution of the Tribunal; and also, seek clarification on the refund of the intervening monthly pension payments. The Commission also directs the Petitioner to inform the Commission on any interim/final Order on the aforesaid issue.

3.115 The Commision, at this stage, is constrained not to consider the payment made by the Petitioner on account of terminal benefits. It will allow the lump sum amount paid by the Petitioner to the pension trust based on the finalization of the liability and outcome of the proceeding at the actuarial tribunal in the future truing up.

**Truing Up of Employee Expenses for FY07**

3.116 The actual employee expense for the Petitioner for FY07 is Rs 107.08 Cr.

3.117 For FY07, the Commission allows the actual employee cost incurred by the Petitioner. In addition to this, the Commission also allows Rs 0.51 Cr (Rs 0.49 Cr towards balance unamortized SVRS expenses and Rs 0.02 Cr of carrying cost @8%) for fully amortizing the SVRS expenses incurred to the Petitioner.

3.118 The details of employee expenses claimed by the Petitioner and approved now by the Commission as per the Order of the ATE for FY07 is shown below:

**Table 29: Employee Expenses for FY07 (Rs Cr)**

| Particulars | FY07 Order | Actual (MYT Petition) | Now Approved |
|---|---|---|---|
| Salaries (Basic, Dearness Pay, HRA) | 68.69 | 63.27 | 63.27 |
| Overtime | | 1.60 | 1.60 |
| Dearness Allowance | 18.55 | 10.14 | 10.14 |
| Other Allowances | | 6.80 | 6.80 |
| Bonus/Exgratia | | 6.63 | 6.63 |
| Staff Welfare Expenses | | 1.07 | 1.07 |
| Terminal Benefits | 12.49 | 8.95 | 8.95 |
| **Other Staff Costs** | 37.03 | | |
| Medical Expenses Reimbursement | | 4.25 | 4.25 |
| Leave Travel Assistance | | 0.02 | 0.02 |
| Earned Leave Encashment | | 0.06 | 0.06 |
| Others | | 4.30 | 4.30 |

| Particulars | FY07 Order | Actual (MYT Petition) | Now Approved |
|---|---|---|---|
| **Total** | **136.76** | **107.08** | **107.08** |
| Metering Reading and Bill Distribution Expense | | | |
| Add Amortization of cost of SVRS | | 35.78 | 0.51 |
| **Gross Employee Expenses** | **136.76** | **142.86** | **107.59** |
| Less: Expenses Capitalised | 3.97 | 8.29 | 8.29 |
| **Net Employee Expenses** | **132.78** | **134.57** | **99.29** |

## Administrative and General (A&G) Expenses

3.119 The Commission has approved the following A&G expenses for the Petitioner in the previous Tariff Orders:

**Table 30: A&G Expenses approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Gross Employee Expenses |
|---|---|---|
| FY03 | FY04 Tariff Order | 7.75 |
| FY04 | FY04 Tariff Order | 10.81 |
| | 1st True Up (FY05 Tariff Order) | 12.11 |
| FY05 | FY05 Tariff Order | 12.89 |
| | 1st True Up (FY06 Tariff Order) | 16.62 |
| | 2nd True Up (FY07 Tariff Order) | 17.07 |
| FY06 | FY06 Tariff Order | 17.28 |
| | 1st True Up (FY07 Tariff Order) | 21.45 |
| FY07 | FY07 Tariff Order | 22.68 |

3.120 The ATE in its Order dated 23 May, 2007 directed the Commission to allow consultancy charges, telephone, postal and telex charges, conveyance and travel charges as claimed by the Petitioner. However, as far as the legal expenses are concerned, the ATE held that the Commission has to approve all the legal expenses incurred by the Appellant except for those expenses which the Commission can specifically point out to be imprudent.

3.121 In the MYT petition, the Petitioner has claimed A&G expenses for FY05 as approved by the Commission in the first true-up in FY06 Tariff Order. The Petitioner has claimed following A&G Expenses for FY05, FY06 and FY07:

**Table 31: A&G Expenses claimed by Petitioner (Rs Cr)**

| Particular | FY05 | FY06 | FY07 |
|---|---|---|---|
| A&G Expenses | 16.62 | 29.68 | 40.10 |

3.122 As held by the ATE, the Commission has allowed actual consultancy charges, telephone, postal and telex charges, and service tax incurred by the Petitioner for FY05 and FY06. The Petitioner vide letter no. RCM/07-08/1103 dated 21 February, 2008 has submitted information with respect to legal expenses incurred by the Petitioner. The Commission approves legal expenses incurred by the Petitioner for FY05, FY06 and FY07 provisionally and directs the Petitioner to submit the case wise details and their expenses where either the courts have found the litigation by the Petitioner frivolous or the courts have pronounced decision against the Petitioner. On receipt of such information, the Commission will finally approve the legal expenses. The Commission approves A&G expenses of Rs 16.62 Cr and Rs 29.69 Cr for FY05 and FY06 respectively.

3.123 The Petitioner has submitted the actual A&G expenses incurred in FY07, based on its audited accounts as Rs. 40.10 Cr. The Commission had approved A&G expenses of Rs 22.68 Cr for FY07 in the Tariff Order for FY07 and directed the Petitioner to take prior approval of the Commission for increase in A&G expenses beyond Rs 22.68 Cr. The Petitioner vide letter no COO(BYPL)/22/17 dated 17 January, 2007 asked for approval from the Commission to increase A&G expenses from Rs 22.68 Cr to Rs 41.72 Cr. Actual A&G expenses for FY07 for the Petitioner is Rs 40.10 Cr. The Commission observed that certain heads like expenses on revenue stamp, consultancy charges, insurance cost, and financing charges under A&G expenses for FY07 of the Petitioner have increase abnormally over FY06. The Commission directed the Petitioner to explain the reasons for this abnormal and sudden increase.

3.124 The Petitioner in the letter No RCM/07-08/1066 dated 16 February, 2008 submitted that increase in bank charges are mainly due to refinancing of DPCL loans and expenses relating to bank charges for executing various agreements. It also submitted that it had incurred Rs 1.05 Cr towards refinancing of DPCL and SVRS loan and this expense is non-recurring in nature. The Petitioner has also submitted that out of the total consultancy charges incurred in FY07, Rs 0.63 Cr is non-recurring in nature. For determining the base for the Control Period, the Commission has excluded these one time expenses.

**Table 32: A&G Expenses now approved by Commission (Rs Cr)**

| Particulars | FY05 | FY06 | FY07 |
|---|---|---|---|
| A&G Expenses | 16.62 | 29.69 | 40.10 |

## Repairs and Maintenance Expenses

3.125 The Petitioner has submitted the actual R&M expenses incurred in FY06 and FY07, based on its audited accounts as Rs. 55.48 Cr and Rs. 47.84 Cr respectively.

3.126 In the Tariff Order for FY07, the Commission had approved R&M expenses of Rs 48.04 Cr for FY06 and Rs. 47.73 Cr for FY07 based on the estimates submitted by the Petitioner. The Commission also directed the Petitioner to take the approval from the Commission for R&M expenses beyond the values approved by the Commission for FY07.

3.127 The Petitioner has claimed R&M expenses for FY06 as Rs 55.48 Cr, which is 15.5% higher than the approved R&M expenses. The Petitioner also did not apply for prior approval from the Commission before exceeding R&M expenses beyond Rs 48.04 Cr limit set by the Commission. Therefore, the Commission disallows the higher expense claimed by the Petitioner and maintains the R&M expenses of Rs 48.04 Cr for FY06.

3.128 Similarly, the Petitioner did not apply for prior approval from the Commission before exceeding R&M expenses beyond Rs 47.73 Cr limit set for FY07. Therefore, the Commission denies the higher expense of Rs 47.84 Cr claimed by the Petitioner and approves R&M expenses of Rs 47.73 Cr of R&M expenses for FY07.

**Table 33: R&M Expenses now approved by Commission (Rs Cr)**

| Year | FY07 Tariff Order | Actuals | Now Approved |
|---|---|---|---|
| FY06 | 48.04 | 55.48 | 48.04 |
| FY07 | 47.73 | 47.84 | 47.73 |

3.129 The Commission has also allowed additional claim of R&M expenses on account of revaluation of stores and spares of the Petitioner and allowed the additional expenses in the truing up of FY06 as claimed by the Petitioner and held by the ATE in its Order dated 23 May, 2007.

## Non Tariff Income (NTI)

3.130 The Commission has approved following non-tariff income for the Petitioner in the previous Tariff Orders:

**Table 34: NTI approved by Commission in previous Tariff Orders (Rs Cr)**

| Year | Tariff Order | Non Tariff Income |
|---|---|---|
| FY03 | FY04 Tariff Order | 13.28 |
| FY04 | FY04 Tariff Order | 18.08 |
| | 1st True Up (FY05 Tariff Order) | 14.46 |
| FY05 | FY05 Tariff Order | 15.09 |
| | 1st True Up (FY06 Tariff Order) | 29.71 |
| | 2nd True Up (FY07 Tariff Order) | 29.70 |
| FY06 | FY06 Tariff Order | 20.52 |
| | 1st True Up (FY07 Tariff Order) | 42.30 |
| FY07 | FY07 Tariff Order | 42.30 |

3.131 The Petitioner has submitted following non-tariff income for FY06 and FY07 in the MYT petition:

**Table 35: Non Tariff Income claimed by Petitioner (Rs Cr)**

| Particulars | FY06 | FY07 |
|---|---|---|
| Non Tariff Income | 28.82 | 52.35 |

**Sale and Repair of Lamp**

3.132 The Petitioner, in its MYT petition submitted that it has shown income from sale and repair of the lamps and apparatus for street lights in non-tariff income, but this amount is still pending with respective agencies since FY04. The Petitioner has considered writing off this income for the respective year and therefore requested the Commission to reduce the non-tariff income of FY03, FY04 and FY05 by Rs 1.72 Cr, Rs 0.86 Cr and Rs 1.60 Cr respectively.

3.133 The Commission rejects the claim of the Petitioner as this amount is outstanding on the respective agencies and if the Petitioner is not able to collect it, it has to bear the losses for the same. The consumers cannot be asked to pay for inability/inefficiency on the part of the Petitioner for not recovering the dues from respective agencies.

3.134 The Commission directed the Petitioner to reconcile the non-tariff income for FY05 and FY06 submitted with the audited accounts. The Petitioner submitted the reconciliation of non-tariff income vide its letter no. RCM/07-08/846 dated 26 December 2007.

3.135 The Commission observed that the non-tariff income for FY06 submitted by the Petitioner was lower than the submission made by the Petitioner during the FY07 Tariff Order. The Commission directed the Petitioner to explain the difference in the non-tariff income for FY06 submitted during processing of Tariff Order of FY07 and now.

3.136 In response, the Petitioner revised non-tariff income for FY06 to Rs 28.82 Cr from earlier Rs 27.24 Cr in letter no RCM/07-08/1044 dated 7 February, 2008 and accepted that amount of Rs 1.58 Cr from sale and repair of lamp was inadvertently not added in the earlier submission.

3.137 In this Tariff Order, the Commission has trued up the non-tariff income for FY06 and FY07 based on the audited account submitted by the Petitioner. The Commission has reduced Rs 9.53 Cr from non-tariff income of the Petitioner for FY06 on account of "excess provision written back" as claimed by the Petitioner and held by the ATE in its Order dated 23 May, 2007.

3.138 The Commission now approves the following non-tariff income for FY06 and FY07.

**Table 36: NTI now approved by Commission (Rs Cr)**

| FY06 | | | | FY07 | | |
|---|---|---|---|---|---|---|
| Order of FY06 | 1st True Up | Actual | Now Approved | Order of FY07 | Actual | Now Approved |
| 20.52 | 42.30 | 28.82 | 33.00 | 42.30 | 52.35 | 57.24 |

## AT&C Losses

3.139 As per Policy Directions dated 20 November, 2001, the Petitioner agreed to reduce AT&C losses during the Policy Direction Period. The table below shows the target AT&C loss levels, actual AT&C loss level achieved by the Petitioner between FY03 – FY07.

**Table 37: AT&C Loss Level in Previous Years**

| Year | Target AT&C Loss Level | Actual AT&C Loss Level Achieved by the DISCOM | Revenue impact of Overachievement/ (Under achievement) (Rs Cr) |
|---|---|---|---|
| FY03 | 56.45% | 61.89% | (75.00) |
| FY04 | 54.70% | 54.29% | 7.87 |
| FY05 | 50.70% | 50.12% | 12.30 |
| FY06 | 45.05% | 43.89% | 27.33 |

3.140 The Petitioner in relation to bid level for FY03 incurred a loss of Rs.75 Cr while in the next financial year it exceeded the bid level and realized excess revenue of Rs.7.87 Cr. Thus there was a balance shortfall of Rs.67.13 Cr. In the FY05 the Petitioner again over achieved and realized excess revenue to the extent of Rs.12.3 Cr which was passed on to the state consumers as it was considered for meeting annual revenue requirement of the Petitioner. Similarly, for FY06 Petitioner again over achieved and realized excess revenue to the extent of Rs.27.33 Cr. The Commission adjusted this amount towards DISCOM adjustments of Rs 12.56 Cr and passed on the remaining Rs 14.77 Cr to the state consumers.

3.141 The Petitioner challenged the Commission's methodology by claiming that instead of setting off this excess revenue towards previous loss, the Commission treated the excess realization from over achievement directly without setting off the same against under achievement as prescribed in the Policy Directions.

3.142 As per the Policy Directions, for the purpose of computation of over achievement and under-achievement will be done as follows:

*"The following shall be the method of computation and treatment of over-achievement and underachievement for the years 2002-03 to 2006-07 as:-*

*I. In the event the actual AT&C loss of a distribution licensee in any year is better (lower) than the level based on the minimum AT&C loss reduction levels stipulated by the Government for that year the distribution licensee shall be allowed to retain 50% of the additional revenue resulting from such better performance. The balance 50% of additional revenue from such better performance shall be counted for the purpose of tariff fixation*

*II. In the event the actual AT&C loss of a distribution licensee in any year is worse (higher) than the level based on the AT&C loss reduction levels indicated in the*

*Accepted Bid for that year, the entire shortfall in revenue on account of the same shall be borne by the distribution licensee*

*III. In the event the actual AT&C loss of a distribution licensee in any year is worse (higher) than the level based on the minimum AT&C loss reduction levels stipulated by the Government for that year but better (lower) than the level based on the AT&C loss reduction levels indicated in the Accepted Bid for that year, the entire additional revenue from such better performance shall be counted for the purpose of tariff fixation*

*Provided further that for Paras 2(I) 2(II) and 2(III) above, for every year, while determining such additional revenue or shortfall in revenue the cumulative net effect of revenue till the end of the relevant year shall be taken, in regard to over-achievement/under achievement and appropriate adjustments shall be made for the net effect"*

3.143 It is contended by the Petitioner that the Commission has to first set off the over achievement in a particular year against the carry forward under-achievement in the previous year.

3.144 The ATE in its Order dated 23 May, 2007, held that the Commission has to adjust the underachievement in the first year against the over achievement in the subsequent years.

3.145 The Commission now readjusts the AT&C loss underachievement / overachievement for the Petitioner as per the ATE Order for FY05, the Commission has passed on Rs 12.30 Cr to the state consumers. The Commission now allows the Petitioner to recover this money in annual revenue requirement for FY07 along with the carrying cost @ 9% per annum. For FY06, the Commission has adjusted amount of Rs 27.33 Cr on account of overachievement with DISCOM adjustment of Rs 12.56 Cr and passed Rs 14.77 Cr to the state consumers. The Commission now approve this full amount towards underachievement on AT&C losses by the Petitioner. The Commission approves carrying cost on only Rs 14.77 Cr as Rs 12.56 Cr was passed on to the Petitioner on account of DISCOM adjustments. Now the DISCOM adjustments will be adjusted against future overachievement on account of AT&C loss reduction by the Petitioner in the Control Period.

3.146 The remaining unadjusted amount on account of AT&C losses underachievement by the Petitioner before adjustment for FY07 is Rs. 27.50 Cr.

## Power Purchase Cost & AT&C Losses for FY07

3.147 The Commission in its Tariff Order of FY07 had approved power purchase of 5448 MU, AT&C loss level of 39.95% and energy sales of 3272 MU. The Commission had approved power purchase cost of the Petitioner as Rs. 1090 Cr for FY07 and projected net revenue as Rs 1447 Cr.

3.148 In the MYT petition, the Petitioner had claimed total power purchase of 5297 MU, 3059 MU as unit billed and units realized as 3230 MU. It has shown distribution losses of 42.3%, collection efficiency of 105.58% and AT&C loss level of 39.03%. The Petitioner has submitted the net revenue from sale of power to be considered towards annual revenue requirement as Rs 1359.01 Cr. The Petitioner has also submitted total revenue collected from sale of power as Rs 1438.61 Cr (Total revenue collected from sale of power Rs 1438.61 Cr, electricity tax of Rs 57.48 Cr) for FY07. The Petitioner has submitted power purchase cost for FY07 as Rs 993.40 Cr.

3.149 The Commission observed that commission earned by the Petitioner on account of Electricity Tax collection (part of the Non Tariff Income) does not match with the Electricity Tax collection submitted by the Petitioner in the MYT petition. The Commission also observed that if one derives net revenue from sale of power after subtracting electricity tax, the figures does not tally.

3.150 The Commission directed the Petitioner to submit the details of the electricity-tax collected for FY06 and FY07.

3.151 The Petitioner responded vide letter no. RCM/06-07/1054 dated 12 February, 2008 submitted to the Commission that the total electricity tax collected by the Petitioner for FY06 and FY07 was Rs 51.42 Cr and Rs 54.33 Cr respectively.

3.152 The Commission in its Tariff Order for FY07 had approved total revenue from sale of power as Rs 1319.35 Cr for FY06. The Commission also considered electricity tax as Rs 52.82 Cr for FY06 as submitted by the Petitioner in FY07 petition to arrive at net revenue of Rs 1266.53 Cr As the Petitioner has now submitted revised electricity tax as Rs 51.42 Cr (decrease of Rs 1.40 Cr), the Commission now approves net revenue for FY06 as Rs 1267.93 Cr (increase of Rs 1.40 Cr).

3.153 The Commission has reviewed and assessed the details of actual AT&C loss for FY07, which stood at 39.03% indicating an overachievement of 0.92% by the Petitioner as compared to the bid level of 39.95%. The Commission has considered the arrears received from the Delhi Jal Board while calculating the actual AT&C losses.

3.154 The actual AT&C loss reduction of the Petitioner is better than the bid level AT&C loss reduction target prescribed for the Petitioner for FY07 but poorer than the minimum AT&C loss reduction level stipulated by the GoNCTD for the Petitioner for FY07. Due to this, additional revenue arising from better performance of the Petitioner shall be first considered for previous AT&C loss underachievement if any. The balance overachievement amount, if any, will be used towards DISCOM adjustment passed on to the domestic consumers during FY07. If there is any balance amount after these two adjustments, it will be passed on to consumers by including it for the purpose of tariff fixation. The treatment of the overachievement in AT&C loss reduction in FY07 by the Petitioner is explained in the table below:

**Table 38: AT&C Losses**

| Particular | Bid Level | Min Level | Actual |
|---|---|---|---|
| A. AT&C Losses | 39.95% | 36.45% | 39.03% |
| B. Over Achievement/ (Under Achievement) | 0.92% | | |
| C. Energy Input (MU) | 5297 | | |
| D. Units Realized (MU) | 3181 | | 3230 |
| E. Average Billing Rate (Rs/Unit) | 4.45 | | 4.45 |
| F. Amount Realized (Rs Cr) | 1416.96 | | 1438.61 |
| | X | Y | Z |
| G. Total benefit on account overachievement beyond bid level (Z-X) (Rs Cr) | 21.65 | | |
| H. Unrecovered amount on account of underachievement in AT&C losses in past (Rs Cr) | 27.50 | | |
| I. Balance unrecovered amount to be borne by the Petitioner (Rs Cr) | 5.85 | | |
| J. Electricity Tax (Rs Cr) | 54.33 | | |
| K. Revenue available towards ARR (F-G -J) (Rs Cr) | 1362.63 | | |

3.155 The balance un-recovered amount on account of the underachievement of AT&C losses will be borne by the Petitioner.

3.156 The Petitioner had also passed on Rs 19.99 Cr to the state consumers as DISCOM adjustments in FY07. As there is no amount left due to overachievement on account of AT&C losses, this expenses will also be adjusted with better performance by the Petitioner on account of AT&C loss reduction in the Control Period.

3.157 The power purchase cost for the Petitioner as per the Delhi Transco Limited (DTL) is Rs 989.16 Cr. The Commission asked the Petitioner to explain the difference between the power purchase cost claimed by the Petitioner and as per the accounts of DTL. The Petitioner submitted to the Commission that the difference of Rs 3.24 Cr is arising due to the dispute on rebate calculation methodology adopted by DTL against which the Petitioner has already submitted petition to the Commission. As the adjudication on the matter is awaited from the Commission, the Commission approves power purchase cost for FY07 at Rs 989.16 Cr, provisionally. The Commission will allow additional power purchase cost to the Petitioner depending upon the outcome of the case.

## Amortization of Regulatory Asset created in the FY05 Order

3.158 The Commission in FY05 Tariff Order has created a Regulatory Asset of Rs 696 Cr which was apportioned between the DISCOMs and DTL. This Regulatory Asset was revised to Rs 548 Cr in FY06 Order after amortization of DTL's share. The Commission revised Regulatory Asset to Rs 518 Cr in FY07 Order based on the second truing up for FY05. The Commission had amortized Rs 211 Cr of Regulatory Assets in FY05 and Rs 210 Cr in FY06. The DISCOM-wise Regulatory Assets, its amortization in FY05 & FY06 and opening balance of unamortized Regulatory Assets to be considered in FY07 are shown in the table below:

**Table 39: Amortization of Regulatory Asset (Rs Cr)**

| DISCOM | Regulatory Asset | Amortization in FY05 | Amortization in FY06 | Un–amortized Regulatory Asset at beginning of FY07 |
|---|---|---|---|---|
| BRPL | 215 | 71 | 64 | 79 |
| BYPL | 100 | 12 | 73 | 15 |
| NDPL | 203 | 128 | 73 | 2 |
| **Total** | **518** | **211** | **210** | **96** |

3.159 The Commission has allowed amortization of remaining Regulatory Asset while truing up for FY07.

## Reactive Energy

3.160 The Commission had not allowed the reactive energy charges under power purchase for the Petitioner in FY06.

3.161 The ATE in its Order dated 23 May, 2007, directed the Commission to allow reactive energy charges to the Petitioner.

3.162 In the MYT petition, the Petitioner has claimed Rs 1.10 Cr towards reactive energy charges for FY06.

3.163 As held by the ATE, the Commission now approves reactive energy charges of Rs 1.10 Cr for year FY06 for the Petitioner.

## Summary

3.164 The Commission has revised depreciation expenses for each year of the Policy Direction Period for the Petitioner in accordance with the judgement of the Supreme Court and Order of the ATE. Change in the depreciation has led to changes in the means of finance, quantum of loan allowed, interest expenses and return on equity for all years of the Policy Direction Period.

3.165 The Commission has also trued up employee expenses, A&G expenses and R&M expenses for FY05 as per the Order of the ATE dated 23 May, 2007. The Commission has done second truing up for FY06 based on final audited accounts and direction given by the ATE in the Order dated 23 May, 2007.

3.166 The Commission has also done first truing up for FY07. The Commission has allowed carrying cost of 9% per annum for all past period carry over expenses. Year-wise truing up details are shown in the tables below:

**Table 40: Truing Up for FY03 (Rs Cr)**

| FY03 | Commission (FY04 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase / (Decrease) |
|---|---|---|---|---|
| Employee Expenses | 80.92 | 80.92 | 80.92 | - |
| A&G Expenses | 7.75 | 7.75 | 7.75 | - |
| R&M Expenses | 21.35 | 21.35 | 21.35 | - |
| Other Admissible Expenses | - | - | - | - |
| Depreciation | 10.13 | 20.35 | 18.06 | 7.93 |
| Interest & Financing Charges | 2.48 | 2.48 | 1.03 | (1.45) |
| DVB Arrears | 20.66 | 20.66 | 20.66 | - |
| **Total Gross Expenditure** | **143.29** | **153.51** | **149.77** | **6.48** |
| Less: Expenses Capitalised | - | - | - | - |
| Less: Interest Capitalised | - | - | - | - |
| Net Expenses | 143.29 | 153.51 | 149.77 | 6.48 |
| Income Tax | - | - | - | - |
| Contingency Reserve | 1.76 | 1.76 | 1.76 | - |
| Return on Equity | 14.70 | 14.63 | 14.56 | (0.14) |
| Less: Non Tariff Income | 13.28 | 13.28 | 13.28 | - |
| **Aggregate Revenue Requirement** | **146.47** | **156.62** | **152.82** | **6.35** |

**Table 41: Truing Up for FY04 (Rs Cr)**

| FY04 | Commission (FY05 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase /(Decrease) |
|---|---|---|---|---|
| Employee Expenses | 114.15 | 114.15 | 114.15 | - |
| A&G Expenses | 12.11 | 12.11 | 12.11 | - |
| R&M Expenses | 31.31 | 31.31 | 31.31 | - |
| Other Admissible Expenses | - | - | - | - |
| Depreciation | 14.35 | 30.09 | 25.60 | 11.25 |
| Interest & Financing Charges | 5.05 | 5.05 | 4.13 | (0.92) |
| DVB Arrears | 28.11 | 28.11 | 28.11 | - |
| **Total Gross Expenditure** | **205.08** | **220.82** | **215.41** | **10.33** |
| Less: Expenses Capitalised | 2.35 | 2.35 | 2.35 | - |
| Less: Interest Capitalised | - | - | - | - |
| **Net Expenses** | **202.73** | **218.47** | **213.06** | **10.33** |
| Contingency Reserve | 1.84 | 1.84 | 1.84 | - |
| Return on Equity | 21.62 | 21.00 | 21.05 | (0.57) |
| Less: Non Tariff Income | 14.46 | 14.46 | 14.46 | - |
| **Aggregate Revenue Requirement** | **211.73** | **226.85** | **221.49** | **9.76** |

**Table 42: Truing Up for FY05 (Rs Cr)**

| FY05 | Commission (FY07 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase / (Decrease) |
|---|---|---|---|---|
| Employee Expenses | 119.44 | 133.84 | 133.84 | 14.40 |
| A&G Expenses | 17.07 | 16.62 | 16.62 | (0.45) |
| R&M Expenses | 46.88 | 46.88 | 46.88 | - |
| Other Admissible Expenses | 57.10 | 57.10 | 57.93 | 0.83 |
| Depreciation | 16.16 | 37.19 | 30.88 | 14.72 |
| Interest & Financing Charges | 2.47 | 9.30 | 6.43 | 3.96 |
| DVB Arrears | 20.77 | 20.77 | 20.77 | - |
| Carrying Cost | 11.57 | 11.57 | 11.57 | - |
| **Total Gross Expenditure** | **291.46** | **333.26** | **324.91** | **33.46** |
| Less: Expenses Capitalised | 6.08 | 6.53 | 6.53 | 0.45 |
| Less: Interest Capitalised | 0.76 | 3.77 | 2.64 | 1.88 |
| **Net Expenses** | **284.62** | **322.96** | **315.75** | **31.13** |
| Income Tax | - | - | 1.50 | 1.50 |
| Contingency Reserve | 2.31 | 2.31 | 2.31 | - |
| Return on Equity | 25.54 | 24.90 | 25.05 | (0.48) |
| Less: Non Tariff Income | 29.70 | 29.70 | 29.70 | - |
| **Aggregate Revenue Requirement** | **282.76** | **320.47** | **314.91** | **32.15** |

**Table 43: Truing Up for FY06 (Rs Cr)**

| FY06 | Commission (FY07 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase /(Decrease) |
|---|---|---|---|---|
| Employee Expenses | 128.12 | 123.36 | 142.52 | 14.40 |
| A&G Expenses | 21.45 | 29.68 | 29.69 | 8.24 |
| R&M Expenses | 48.04 | 55.48 | 48.04 | - |
| Depreciation | 30.03 | 48.98 | 42.99 | 12.96 |
| Interest & Financing Charges | 16.16 | 39.65 | 25.50 | 9.34 |
| DVB Arrears | 33.64 | 33.64 | 33.64 | - |
| **Total Gross Expenditure** | **277.4** | **330.79** | **322.38** | **44.94** |
| Less: Expenses Capitalised | 9.14 | 10.29 | 10.29 | 1.15 |
| Less: Interest Capitalised | 3.27 | | 11.54 | 8.27 |
| **Net Expenses** | **265.03** | **320.50** | **300.55** | **35.52** |
| Income Tax | 5.46 | - | 8.00 | 2.54 |
| Return on Equity | 30.93 | 30.70 | 30.72 | (0.21) |
| Less: Non Tariff Income | 42.30 | 28.82 | 33.00 | (9.30) |
| **Other Adjustments** | | | | |
| Unamortized Regulatory Asset | - | 15.00 | - | - |

| FY06 | Commission (FY07 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase /(Decrease) |
|---|---|---|---|---|
| Past Period Expenses (Stores) | - | 7.00 | 7.00 | 7.00 |
| Past Period Expenses (Others) | - | 0.03 | 0.03 | 0.03 |
| Amount of Stores utilized in FY05 set off against Provisions to be considered as truing up for FY05 | - | 0.48 | 0.48 | 0.48 |
| Reactive Energy Charges | - | 1.10 | 1.10 | 1.10 |
| DISCOMS Adjustment to Consumer | 12.56 | 27.33 | - | (12.56) |
| Past Period Expenses (Depreciation) | - | 2.77 | - | - |
| Less: Additional Revenue on account of lower E-Tax in FY06 | | | 1.40 | (1.40) |
| **Aggregate Revenue Requirement** | **271.68** | **376.09** | **312.49** | **41.81** |

**Table 44: Truing Up for FY07 (Rs Cr)**

| FY07 | Commission (FY07 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase /(Decrease) |
|---|---|---|---|---|
| Employee Expenses | 136.76 | 107.08 | 107.08 | (29.68) |
| A&G Expenses | 22.68 | 40.10 | 40.10 | 17.42 |
| R&M Expenses | 47.73 | 47.84 | 47.73 | - |
| Depreciation | 43.14 | 83.57 | 48.87 | 5.74 |
| Interest & Financing Charges | 56.98 | 93.34 | 73.92 | 16.94 |
| DVB Arrears | - | 63.76 | 63.76 | 63.76 |
| Carrying Cost on True Up | (0.56) | - | (0.56) | - |
| **Total Gross Expenditure** | **306.72** | **435.68** | **380.90** | **74.17** |
| Less: Expenses Capitalised | 3.97 | 8.29 | 8.29 | 4.32 |
| Less: Interest Capitalised | 19.72 | | 13.22 | (6.50) |
| **Net Expenses** | **283.03** | **427.39** | **359.40** | **76.36** |
| Income Tax | 0.58 | 1.03 | 1.03 | 0.45 |
| Return on Equity | 36.31 | 36.04 | 36.07 | (0.24) |
| Less: Non Tariff Income | 42.30 | 52.35 | 57.24 | 14.94 |
| **Other Adjustments** | | | | |
| VSS Amortization | | 35.78 | 0.51 | 0.51 |
| Pension/ Medical/ LTA to VSS Retirees | | | 41.14 | 41.14 |
| Truing Up for FY03 | | 10.15 | 6.35 | 6.35 |
| Truing Up for FY04 | | 15.12 | 9.76 | 9.76 |
| Truing Up for FY05 | | 37.71 | 32.15 | 32.15 |
| Truing Up for FY06 | | 105.99 | 41.81 | 41.81 |
| Carrying cost for Past Truing Up @9% | | | 15.30 | 15.30 |

| FY07 | Commission (FY07 Order) | Petitioner (MYT Petition) | Now Approved by Commission | Increase /(Decrease) |
|---|---|---|---|---|
| Unamortized Regulatory Asset | 15.00 | | 15.00 | 15.00 |
| Adjustment on account of AT&C Losses over achievement | | | 30.71 | 30.71 |
| **Aggregate Revenue Requirement** | **292.62** | **696.00** | **531.98** | **254.35** |
| Power Purchase Cost | 1090.00 | 993.40 | 989.16 | 100.84 |
| **Total revenue Requirement Including Power Purchase** | **1382.62** | **1689.40** | **1521.14** | **355.19** |
| Revenue Available for adjustment towards ARR | 1382.62 | 1359.01 | 1362.63 | |
| **Revenue Gap/(Surplus)** | **0.00** | **330.39** | **158.50** | |

# A4: ANALYSIS OF THE AGGREGATE REVENUE REQUIREMENT (ARR) FOR THE CONTROL PERIOD

## Introduction

4.1 The Commission has analysed the Multi Year Tariff (MYT) petition submitted by the Petitioner (BYPL) for approval of Aggregate Revenue Requirement (ARR) and determination of Wheeling and Retail Supply Tariffs for the Control Period (FY08-FY11).

4.2 The Commission held several rounds of technical discussions to validate the data submitted by the Petitioner and sought further clarifications on various issues. The Commission has considered all information submitted by the Petitioner as part of the tariff petition, audited accounts for past years, responses to various queries raised during the discussions and also during the public hearing, for determination of tariff.

4.3 A brief overview of the MYT petition, submitted by the Petitioner for the Control Period is shown in the table below:

**Table 45: Summary of MYT Petition (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Power Purchase Cost | 1331.52 | 1285.65 | 1392.11 | 1560.08 |
| Other Expenditure | 576.48 | 566.69 | 494.17 | 574.19 |
| **Total Expenditure** | **1908.00** | **1852.35** | **1886.28** | **2134.27** |
| Return on Capital Employed | 162.54 | 186.73 | 204.72 | 219.18 |
| Less: Other Income | 43.71 | 46.19 | 48.96 | 51.92 |
| **Aggregate Revenue Requirement** | **2026.84** | **1992.89** | **2042.04** | **2301.53** |
| Revenue from Tariff & Charges | 1480.55 | 1608.78 | 1750.70 | 1921.67 |
| **Revenue Surplus/ (Deficit)** | **(546.29)** | **(384.12)** | **(291.34)** | **(379.86)** |

4.4 As per the requirements of the MYT Regulations, 2007 issued by the Commission, the Petitioner has provided the allocation statement for allocating each element of the ARR into Wheeling and Retail Supply Business. The respective ARR of Wheeling and Retail Supply Business submitted by the Petitioner is as follows:

**Table 46: MYT Petition – Wheeling ARR (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Power Purchase Cost | - | - | - | - |
| Other Expenditure | 221.54 | 237.33 | 298.10 | 348.16 |
| **Total Expenditure** | 221.54 | 237.33 | 298.10 | 348.16 |
| Return on Capital Employed | 135.04 | 158.50 | 175.01 | 188.17 |
| Less: Other Income | 7.73 | 8.18 | 8.80 | 9.44 |
| **Aggregate Revenue Requirement** | **348.85** | **387.65** | **464.32** | **526.89** |

**Table 47: MYT Petition – Retail Supply ARR (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Power Purchase Cost | 1331.52 | 1285.65 | 1392.11 | 1560.08 |
| Other Expenditure | 354.94 | 329.37 | 196.06 | 226.03 |
| **Total Expenditure** | **1686.46** | **1615.02** | **1588.18** | **1786.11** |
| Return on Capital Employed | 27.50 | 28.23 | 29.71 | 31.00 |
| Less: Other Income | 35.98 | 38.00 | 40.16 | 42.48 |
| **Aggregate Revenue Requirement** | **1677.98** | **1605.25** | **1577.72** | **1774.64** |

4.5 This chapter contains detailed analysis of the petition submitted by the Petitioner and various parameters approved by the Commission for determination of ARR for Wheeling and Retail Supply business for the Petitioner.

## Base Year

4.6 For the purpose of projecting the expenses and other elements of the ARR for the Control Period, the Commission has considered FY07 as the base year.

## SALES FORECAST

### Petitioner's Submission

4.7 The Petitioner has submitted that since the growth in sales does not follow a uniform trend, therefore, a CAGR approach has not been followed for the projection of sales for the Control Period. The Petitioner has projected the growth in sales higher than the CAGR for the Policy Direction period after taking into account various factors such as development of housing colonies, infrastructure development in the city, increase in commercial establishments, malls, etc; increase in number of consumers (presently indulging in unauthorized abstraction of power), due to various electrification initiatives such as HVDS, LTABC etc, which will cover the unauthorized colonies and JJ clusters; growth in specific consumption of the existing consumers on account of growth in economy and life style changes.

4.8 The Petitioner has submitted that while estimating sales of Industrial category, due consideration has been given to relocation/decline of industries pursuant to the Supreme Court's Orders and environmental/pollution Board's initiatives in the Petitioner's area of operation. Increased specific consumption for industrial consumers has been considered due to increase in economic activity and theft control measures.

4.9 The Commission had also held a technical session with the Petitioner for validation of Petitioner's sales forecasts. The Petitioner presented its methodology and sales forecasts in the above session. The Commission noticed certain discrepancies in the sales figures submitted for domestic subcategories and directed the Petitioner to resubmit the correct estimates. The Petitioner admitted the inadvertent mistake in its sales forecast and later submitted revised correct sales figures and forecasts vide letter no RCM-07-08/1034 dated 28 January 2008.

4.10 The licensee, in their MYT submission has submitted the following sales forecast for the Control Period:

**Table 48: Petitioner's Sales Forecast**

| Category | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Domestic | 1648 | 1796 | 1967 | 2211 |
| Non-Domestic | | | | |
| NDLT | 701 | 764 | 840 | 916 |
| MLHT | 374 | 441 | 512 | 589 |
| Industrial | | | | |
| SIP | 352 | 355 | 362 | 370 |
| LIP | 51 | 52 | 53 | 54 |
| Agriculture and Mushroom | 0.49 | 0.49 | 0.49 | 0.49 |
| Public Lighting System | 87 | 92 | 96 | 101 |
| DMRC | 60 | 72 | 86 | 112 |
| Other | 166 | 170 | 163 | 158 |
| **Total Sales in MUs** | **3439** | **3742** | **4080** | **4510** |
| Y-o-Y Growth rate | 12.44% | 8.79% | 9.03% | 10.55% |
| No of Consumers | 948596 | 997901 | 1050640 | 1114999 |
| Y-o-Y Growth rate | 6.00% | 5.20% | 5.29% | 61.13% |

## Commission's Analysis

4.11 While projecting the energy sales of the Petitioner during the Control Period, the Commission has analysed the sales projection made for Delhi in the 17$^{th}$ Electric Power Survey (EPS) by CEA. The Energy sales projections submitted by the Petitioner were much lower than the 17$^{th}$ Electric Power Survey (EPS) sales projection. In previous two years i.e. FY06 and FY07, the total sales in Delhi were much lower than the energy sales projected in the 17$^{th}$ EPS. Therefore the Commission has decided to forecast sales figures for the Control Period using past trends and projections made by the Petitioner.

4.12 The Commission has analysed the sales projected by all the distribution licensees for the Control Period. The Commission has observed that the energy sale in the previous years of all the licensees does not show a uniform trend. Therefore, the Commission has considered the consolidated sales of a specific category (i.e. Domestic, Industrial, Commercial etc) of all the three DISCOMs namely, BRPL, BYPL and NDPL and has forecasted the same for the Control Period by considering an appropriate growth rate based on the past trends. The Commission has, thereby, calculated the weighted average share of sales of each distribution company in FY06 and FY07 in a particular category and has allocated the consolidated sales forecasted for that category to the respective distribution company in the proportion of its weighted average share.

4.13 For deciding the appropriate growth rate for forecasting the energy sales for a particular category, the Commission has analysed the year-on-year variations in sales as well as the short term and long term trends in sales. The Commission has computed the CAGR for 2 years to 12 years duration. The Commission has, thereafter, considered the appropriate CAGR depending upon the consumer categories, consumption trend in recent period, excluding the abnormal variations.

4.14 The Commission has approved the sales to each consumer category as detailed below.

4.15 **Domestic Consumers**

(a) The trend analysis of sales to this category across all DISCOMs shows that the year-on-year variation in sales fluctuates wildly from 15.85% to (–ve) 2.92% for the period from FY96 to FY07. For FY07 sales growth rate is 5.69% and the CAGR for the Policy Direction Period (FY03 to FY07) is 6.71%.

(b) Except for FY03 and FY05 when the number of consumer declined for this category, the year on year (Y-o-Y) growth in the number of consumer has been steady between 2.74% to 7.89%.

(c) Considering the above, the Commission has considered the Y-o-Y increase in sales to this category for the Control Period at 5.54%, which is line with 7 years' CAGR for sales to this category.

(d) The Commission has observed that ratio of sales to domestic category for BYPL to the total sales to domestic category for BRPL, BYPL and NDPL combined has almost remained same in the last two years. The Commission has assumed that for the Control Period, ratio of domestic sales in the Petitioner's area to total domestic sales for all DISCOMs will remain unchanged. The Commission has assumed this ratio as weighted average of FY06 and FY07. Accordingly the Petitioner's domestic sales have been projected at 23.81% of total domestic sales projected for all DISCOMs combined.

(e) For projection of sale to subcategories of domestic consumers the Commission has used the ratio of actual sales in the subcategory to total domestic sales of the Petitioner for FY06 and FY07.

(f) For projecting number of consumers and connected load, the Commission has used number of consumers and connected load projected by the Petitioner for the Control Period and multiplied it with the ratio of sales approved by the Commission and sales projected by the Petitioner for the category/sub-category.

4.16 **Non-Domestic Consumer**

(a) The trend analysis for this category shows that for period from 1995-96 to 2006-07; sales to non domestic consumers in Delhi have grown consistently between 3.60% and 37.81% on Y-o-Y basis. The CAGR for Policy Direction Period (FY02 to FY07) has been 15.55%.

(b) The number of consumers in the non-domestic category has grown steadily except for FY03 and FY04 when the number of consumer has declined.

(c) Considering the above, the Commission has projected an increase in sales to this category for the Control Period at 13.56%, which is in line with 4 years' CAGR for sales to this category.

(d) The Commission has observed that ratio of sales to non - domestic category for BYPL to the total sales to non - domestic category for BRPL, BYPL and NDPL combined has almost remained same in last two years. The Commission has assumed that for the Control Period, ratio of non - domestic sales in the Petitioner's area to total domestic sales for all DISCOMs will remain unchanged. The Commission has assumed this ratio as weighted average of FY06 and FY07. Accordingly the Petitioner's non - domestic sales has been projected at 25.82% of total non - domestic sales projected for all DISCOMs combined.

(e) For projection of sale to subcategories of non-domestic consumers, the Commission has used the ratio of actual sales to the subcategory to total non-domestic sales of the Petitioner for FY06 and FY07.

(f) For projecting number of consumers and connected load, the Commission has used number of consumers and connected load projected by the Petitioner for the Control Period and multiplied it with the ratio of sales approved by the Commission and sales projected by the Petitioner for the category/sub-category.

4.17 **Industrial**

(a) The trend analysis for this category for period from FY00 to FY07 shows that sales to industrial consumers in Delhi have either grown modestly or have declined due to relocation of industries in recent years. The number of consumers in industrial category has also followed similar trend. Thus to even out any variations and aberrations in the growth of sales to the Industrial consumers, the Commission has projected a Y-o-Y increase in sales to this category for the Control Period at 1.03%, which is in line with 5 years' CAGR for sales to this category.

(b) The Commission, while estimating sales to industrial category has considered relocation/decline of industries pursuant to the Supreme Court's Order and

Pollution Control Board's initiatives. New industrial areas being developed in the NDPL area at Bawana and Narela has been given due consideration. Therefore it is expected that BRPL and BYPL's shares in total industrial sales of Delhi will reduce slightly whereas NDPL share in total industrial sales of Delhi will increase. The Commission has assumed that ratio of sales to industrial category for the Petitioner to the total sales to industrial category for all DISCOMs to decrease by 1%, 1.5%, 2.0% and 2.5% in FY08, FY09, FY10 and FY11 respectively from the weighted average level of FY06 and FY07. Accordingly BYPL industrial sales have been projected at 14.9%, 14.4%, 13.9% and 13.4% of total industrial sales projected for BRPL, BYPL and NDPL combined for FY08, FY09, FY10 and FY11 respectively.

(c) For projection of sale to subcategories of industrial consumers the Commission has used the ratio of actual sales to the subcategory to total industrial sales for the Petitioner for FY06 and FY07.

(d) For projecting number of consumers and connected load for the Control Period, the Commission has used number of consumers and connected load projected by the Petitioner for the Control Period and multiplied it with the ratio of sales approved by the Commission and sales projected by the Petitioner for the category/sub-category.

4.18 **Public Lighting**

(a) The Sales to this Category have shown marginal variation for the period FY99 to FY03, however, from FY03 onwards sales to Public Lighting have grown consistently between 9.44% to 53.65% on Y-o-Y basis. Considering the huge variations in the sales with respect to this category, the Commission has projected a Y-o-Y increase in the sales to this category for the Control Period at 12.19%, which is line with 6 years' CAGR for sales to this category.

(b) The Commission has observed that ratio of sales to public lighting category for the BYPL to the sales to public lighting category for all DISCOMs have almost remained same in last two years. The Commission has assumed that for the Control Period, ratio of public lighting sales in the Petitioner's area to total public lighting sales for all DISCOMs will remain unchanged. The Commission has assumed this ratio as weighted average of FY06 and FY 07. Accordingly the Petitioner's public lighting sales has been projected at 28.63% of total public-lighting sales projected for BRPL, BYPL and NDPL combined.

4.19 **Agriculture & Mushroom Cultivation**

(a) The sale to this category has steadily declined in the recent years. In view of this declining trend, the Commission has projected the Y-o-Y sales to agriculture and mushroom cultivation for the Control Period at (–ve) 14.84%, which is line with 5 years' CAGR for sales to this category.

(b) The Commission has observed that ratio of sales to agriculture and mushroom cultivation category for BRPL to the total sales to agriculture and mushroom cultivation category for BRPL, BYPL and NDPL have almost remained same in last two years. The Commission has assumed that for the Control Period, ratio of agriculture and mushroom cultivation sales in the Petitioner's area to total agriculture and irrigation sales for all DISCOMs will remain unchanged. The Commission has assumed this ratio as weighted average of FY06 and FY 07. Accordingly the Petitioner's agriculture and mushroom cultivation sales have been projected at 1.02% of total agriculture and mushroom cultivation sales projected for BRPL, BYPL and NDPL combined.

(c) For projecting number of consumers and connected load, the Commission has used number of consumers and connected load projected by the Petitioner for the Control Period and multiplied it with the ratio of sales approved by the Commission and sales projected by the Petitioner for the category/sub-category.

4.20 **DMRC**

(a) The Commission has considered the estimates for energy sales to DMRC as proposed by Delhi Metro Rail Corporation vide their letter no DMRC/Elect/Plg/ARR/2007/Pt.II/24206 dated 7 January, 2008 for FY08 and DMRC/Elect/Plg/ARR/2007/Pt.II/ dated 28 December, 2007 for FY09 to FY11.

4.21 **Others**

(a) The Petitioner's own consumption, enforcement and temporary connections have been included in "Other" category. The Commission has projected sales in "Other" category for Delhi to grow at 0.87% Y-o-Y in line with 4 years' CAGR for this category.

(b) The Commission has observed that ratio of sales to "Others" category for the BYPL to the total sales to "Others" category for BRPL, BYPL and NDPL have almost remained same in FY06 and FY07. The Commission has assumed that for the Control Period, ratio of "Others" sales in the Petitioner's area to total "Others" sales for all DISCOMs will remain unchanged. The Commission has assumed this ratio as weighted average of FY06 and FY07. Accordingly the Petitioner's "Others" sales have been projected at 33.48% of total "Others" sales projected for BRPL, BYPL and NDPL combined.

4.22 The Commission approves following energy sales for the Petitioner for each year of the Control Period.

**Table 49: Summary of Approved sales for MYT Control Period (MU)**

| SN | Category | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| 1. | Domestic | 1545.79 | 1631.39 | 1721.73 | 1817.06 |

| SN | Category | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| 2. | Non-domestic | 1127.66 | 1280.56 | 1454.19 | 1651.37 |
| 3. | Industrial | 382.59 | 386.12 | 389.22 | 391.83 |
| 4. | Public Lighting | 91.58 | 102.74 | 115.26 | 129.30 |
| 5. | Irrigation & Agriculture | 0.36 | 0.30 | 0.26 | 0.22 |
| 6. | DMRC | 28.00 | 33.00 | 55.00 | 316.00 |
| 7. | Others | 81.27 | 81.97 | 82.69 | 83.41 |
| | **Total** | **3257.24** | **3516.09** | **3818.34** | **4389.19** |

## AT& C Losses

### Petitioner's Submission

4.23 In the MYT petition, the Petitioner has submitted that AT&C loss reduction targets as specified in MYT Regulations, 2007 are not achievable. Therefore the Petitioner has proposed AT&C loss reduction trajectory keeping in view of various parameters such as existing loss levels, consumer & sales mix, comparative loss level and network configuration of the Petitioner vis-à-vis distribution utilities in other states

4.24 The Petitioner has proposed AT&C loss reduction targets in its MYT petition which are in consonance with Abraham Committee Report on distribution loss reduction. the Petitioner proposal on AT&C loss reduction target is summarised in the table below:

**Table 50: Petitioner's Proposed AT&C Loss Reduction Trajectory**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| AT & C loss target | 36.03% | 33.03% | 30.03% | 27.03% |
| Distribution loss target | 36.28% | 33.28% | 30.28% | 27.28% |
| Implied Collection Efficiency | 100.39% | 100.37% | 100.36% | 100.34% |

### Commission's Analysis

4.25 The Commission highlights that the AT&C loss reduction targets for the Petitioner as specified in the MYT Regulation, 2007 have been fixed considering the past achievements on loss reduction, capital expenditure programs, consumer mix of Delhi, metering status, etc. The Abraham Committee report for release of the APDRP funds has provided insights into existing levels of losses across several urban centres of India. It mentions that "**212 towns in the country have brought down the AT&C losses below 20 percent which also consist 169 such town that have brought down the AT&C losses below 15 percent**".

4.26 The Commission has also considered the loss levels in similar private urban distribution licensees, such as Ahmedabad Electricity Company, BEST and BSES, Mumbai, where AT&C losses were in the range of 10 percent to 14 percent in FY05.

4.27 The Commission also believes that Delhi being an urban area with very small number of agricultural consumers and almost 100 percent retail consumer metering, loss reduction can be achieved at much faster rate.

4.28 Substantial capital investments were made by the DISCOMs in Delhi for improving the distribution network and reducing technical and commercial losses. Government support in the form of special courts for power theft related cases, recent amendment in E Act wherein theft of electricity has been classified as cognizable & non-bailable offence, police support during theft control drives, deployment of CISF, etc are also being provided to the Petitioner. This will help the DISCOMs in Delhi in reducing losses at much faster rate.

4.29 The Commission, in view of the above mentioned points considers AT&C loss reduction targets as per the provisions of MYT Regulation, 2007. The Commission has considered 17.03 % reduction in AT&C losses (39.03% in FY07 to 22.00% in FY11) for the Control Period. The Commission has considered reduction of 25% of the total AT&C loss reduction target in each year of the Control Period. As specified in the MYT Regulation, 2007 the Petitioner has to reduce a minimum of 20% of the total AT&C loss reduction target for the Control Period in any year of the Control Period.

4.30 For the purpose of calculating the incentive/ penalty on account of over/under achievement of AT&C loss reduction target the Commission would consider the following:

(a) First year of the Control Period: The Petitioner shall be eligible for an incentive if the AT&C loss reduction in the first year of the Control Period is above 25%. Any under recovery in the revenue realised, if the AT&C loss reduction in the first year of the Control Period is below 20%, shall be to the account of the Petitioner. The Petitioner shall not be eligible for any incentive or penalty if the AT&C loss reduction in the first year of the Control Period is between 20% and 25%.

(b) Second year of the Control Period: The Petitioner shall be eligible for an incentive if the cumulative value of loss reduction in that year and in the previous year is over 50%. Any under recovery in the revenue realised, if the AT&C loss reduction in the second year of the Control Period is below 20% and that the cumulative value of loss reduction in that year and in the previous year is below 45%, shall be to the account of the Petitioner. The Petitioner shall not be eligible for any incentive or penalty if the cumulative AT&C loss reduction in the first and second year of the Control Period is between 45% and 50%.

(c) Third year of the Control Period: The Petitioner shall be eligible for an incentive if the cumulative value of loss reduction in that year and in the previous two years is over 75%. Any under recovery in the revenue realised, if the AT&C loss reduction in the third year of the Control Period is below 20%

and that the cumulative value of loss reduction in that year and in the previous two years is below 70%, shall be to the account of the Petitioner. The Petitioner shall not be eligible for any incentive or penalty if the cumulative AT&C loss reduction in the first, second and third year of the Control Period is between 70% and 75%.

(d) Last year of the Control Period: The Petitioner shall be eligible for an incentive if the cumulative value of loss reduction at the end of the Control Period is over 100%. Any under recovery in the revenue realised, if the AT&C loss reduction in the last year of the Control Period is below 20% and that the cumulative value of loss reduction at the end of the Control Period is below 100%, shall be to the account of the Petitioner.. The Petitioner shall not be eligible for any incentive or penalty if the cumulative AT&C loss reduction at the end of the Control Period is 100%.

4.31 Further, the Commission has assumed collection efficiency of 99.00%, 99.25% 99.50% and 99.50% for current dues for FY08, FY09, FY10 and FY11 respectively and derived distribution losses of 34.11%, 29.99%, 25.89% and 21.61% for FY08, FY09, FY10 and FY11 respectively. The AT&C loss reduction and distribution loss reduction trajectory approved by the Commission are summarised in the table below:

**Table 51: Commission Approved AT&C and Distribution Loss Reduction Trajectory**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| AT & C loss target | 34.77% | 30.52% | 26.26% | 22.00% |
| A T & C loss Reduction over previous year | 4.26% | 4.26% | 4.26% | 4.26% |
| Distribution loss target | 34.11% | 29.99% | 25.89% | 21.61% |
| Collection Efficiency | 99.00% | 99.25% | 99.50% | 99.50% |

## Energy Requirement

### Petitioner's Submission

4.32 The Petitioner's estimates for energy requirement based on the sales projection and proposed AT&C loss reduction target in MYT petitions are tabulated below.

**Table 52: Petitioner's estimate for energy Requirement**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Sales (MU) | 3439 | 3742 | 4080 | 4510 |
| Distribution losses (%) | 36.29% | 33.28% | 30.28% | 27.28% |
| **Energy Input (MU) Requirement** | **5398** | **5608** | **5852** | **6202** |

**Commission's Analysis**

4.33 The Commission's estimates of energy requirement for the Control Period are based on the sales and AT&C loss reduction trajectory approved by the Commission. The Commission's estimates for power requirement are tabulated below.

**Table 53: Commission approved energy Requirement**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Sales (MU) | 3257.24 | 3516.09 | 3818.34 | 4389.19 |
| Distribution losses (%) | 34.11% | 29.99% | 25.89% | 21.61% |
| Energy Input (MU) Requirement | 4943.72 | 5022.26 | 5152.05 | 5599.04 |

## Determination of Aggregate Revenue Requirement

4.34 The Commission has analyzed all the components of the Aggregate Revenue Requirement (ARR) submitted by the Petitioner to approve suitable values for each component, for each year of the Control Period. As per the MYT Regulations, 2007 the ARR include the following components:

(a) Power Purchase Cost (including inter state & intra state transmission charges)

(b) Operations and Maintenance Expenses;

(c) Return on Capital Employed;

(d) Depreciation, including Advance Against Depreciation;

(e) Tax Expenses;

(f) Non-Tariff Income; and

(g) Income from other businesses.

## Power Purchase

4.35 The power purchase expense is the single largest component in the ARR of a distribution company. Hence, it is imperative that this element of cost is estimated with utmost care based on the most efficient way of procuring power from the generating stations through long term/short term arrangements or through bilateral purchases agreements.

4.36 The Commission has exercised due caution in estimating power purchase cost of the Petitioner. The Commission has made reasonable assumption for PLF, auxiliary consumption, transmission losses and weighted average allocation of the DISCOMs to arrive at the quantum of energy available for the Petitioner. In the estimates for FY

08, actual power purchase for the first three quarters i.e. April'07 to December'07 submitted by the Petitioner vide letter no RCM/07-08/BYPL/831 dated 20 December 2007 and RCM/07-08/BYPL/1038 dated 31 January 2008 has been taken into account.

**Source of Power**

4.37 Following power generating stations has been considered for the purpose of estimation of available power during the Control Period

(a) Power Generating Stations within Delhi

(i) Indraprastha Power Generating Company Limited (IPGCL)

(ii) Pragati Power Corporation Limited (PPCL)

(iii) Badarpur Thermal Power Station (BTPS)

(b) Purchase from Central Generating Stations of NTPC, NHPC, NJPC and NPC

(c) Tehri and Tala Hydro Electric Power Stations

(d) Purchase through bilateral short term arrangements and banking arrangements

(e) New plants expected to be commissioned during the Control Period

**Allocation of the Petitioner in Generating Stations**

**Reassignment of PPAs**

4.38 The Commission had reallocated all existing PPAs among the three distribution companies namely BRPL, BYPL and NDPL in proportion to the energy drawn by them from the date of unbundling to February 2007 vide Order no. F.17 (115)/Engg./DERC/2006-07/ dated 31 March, 2007.

**Table 54: Reassignment of PPAs**

| Allocation of pre-existing PPAs | | |
|---|---|---|
| **NDPL** | **BRPL** | **BYPL** |
| 29.18% | 43.58% | 27.24% |

**Allocation from Generating Stations in Delhi System**

4.39 In accordance with aforesaid Order of the Commission on reassignment of PPAs, only 85% of the capacities of the four generating station within NCR periphery viz IPGCL, PPCL and NCR Dadri TPS, are allocated amongst the three distribution companies. In case of Badarpur TPS, other two distribution companies in Delhi namely NDMC and

MES are allocated a capacity of 350MW and 50 MW respectively; BRPL, BYPL and NDPL have been allocated 85% of remaining capacity.

4.40 15% of the capacity of NCR Dadri TPS, IPGCL and PPCL and the balance of what is left from the Badarpur TPS after allocating to the NDMC and the MES has been treated as unallocated share. The Commission has further stipulated in the Order that this unallocated share of 15% would be at the disposal of the GoNCTD and may be allotted by the Government to the distribution company(ies) whose consumers are likely to face a relatively higher retail tariff on account of this exercise of reassignment of PPAs. The cost of power from these plants is regulated and is lower than the cost at which power would be procured through bilateral arrangements and also through UI at present.

4.41 The GoNCTD, in its Order no F.11(41)/2007/Power/PF-III/233 dated 25 January, 2008 has assigned entire 15% unallocated share to BYPL for FY 08.

4.42 The Petitioner has assumed that the allocation of 299 MW i.e. 15% unallocated power with GoNCTD shall remain unaltered for the rest of the Control Period. The Commission has, however, assumed that from 1 April, 2008 onwards unallocated capacity shall be reallocated between BYPL and NDPL in the ratio of 55:45 till 31 March, 2009 as per GoNCTD letter no. F.11/2007/Power/426 dated 22 February, 2008. Thereafter, it has been assumed that unallocated capacity shall revert back to the three DISCOMs in the same ratio in which the capacity allocation was done in the Reassignment Order. These assumptions might not have any bearing on the actual allocation of the unallocated capacity which shall be done by the GoNCTD independently. Based on the actual allocation power purchase cost may vary and it will be subjected to true-up. However, GoNCTD shall allocate the unallocated quota beyond 31 March 2009 duly taking into account the financial position of the respective DISCOMs.

4.43 The Commission has considered following allocation from generating stations in Delhi system while estimating the power purchase cost as tabulated below:

**Table 55: Allocation from the Generating Stations in Delhi System**

| Plant | Capacity | Firm Allocation to DISCOMs (85%) MW | Unallocated Share with GoNCTD (15%) MW | BYPL Share from Firm Allocation FY08-FY11 | BYPL Share from unallocated power FY08 | BYPL Share from unallocated power FY09 | BYPL Share from unallocated power FY10-FY11 |
|---|---|---|---|---|---|---|---|
| BTPS* | 305 | 259.5 | 45.8 | 27.24% | 100.00% | 55.00% | 27.24% |
| Dadri** | 756 | 642.6 | 113.4 | 27.24% | 100.00% | 55.00% | 27.24% |

* Total installed capacity of 705 MW, 305 MW allocated to BRPL, BYPL and NDPL. Remaining 400 MW allocated to NDMC and MES.

| Plant | Capacity | Firm Allocation to DISCOMs (85%) MW | Unallocated Share with GoNCTD (15%) MW | BYPL Share from Firm Allocation FY08-FY11 | BYPL Share from unallocated power FY08 | BYPL Share from unallocated power FY09 | BYPL Share from unallocated power FY10-FY11 |
|---|---|---|---|---|---|---|---|
| Rajghat | 135 | 114.8 | 20.3 | 27.24% | 100.00% | 55.00% | 27.24% |
| IP Station | 185 | 157.3 | 27.8 | 27.24% | 100.00% | 55.00% | 27.24% |
| GT | 282 | 239.7 | 42.3 | 27.24% | 100.00% | 55.00% | 27.24% |
| PPCL | 330 | 280.5 | 49.5 | 27.24% | 100.00% | 55.00% | 27.24% |
| **Total** | **1993** | **1694.1** | **299.0** | **27.24%** | **100.00%** | **55.00%** | **27.24%** |

### Allocation from Central Sector Generating Stations (CSGS)

4.44 Delhi has firm allocated share in Central Sector Generating Stations (CSGS) of NTPC, National Hydroelectric Power Corporation (NHPC), Tehri Hydro Development Corporation (THDC), Satluj Jal Vidyut Nigam Limited (SJVNL) and Nuclear Power Corporation Limited (NPCIL).

4.45 In addition to the firm share allocation, most of these stations (except Bairasuil, Salal, Tanakpur, Chamera-I and Uri stations of NHPC) have 15% unallocated power. The distribution of this unallocated power among the constituents of Northern Region is decided from time to time based on the power requirement and power shortage in different States. The Commission has already stipulated in its reassignment Order that unallocated quota from CSGS, when allocated to Delhi by the Central Govt. shall be further allocated to BRPL, BYPL, NDPL in the ratio as indicated in Table 54.

4.46 The Petitioner in their petition has considered allocation of firm and unallocated power of CSGS as per the allocations effective from 01.06.2007 specified in the notification no. NRPC/SE (O)/Allocation/2007-08 of Northern Regional Power Committee.

4.47 The Commission has considered allocation of firm power of CSGS as per the allocations effective from 27 October, 2007 as specified in the notification no. NRPC/SE(O)/Allocations/2007-08 dated 26 October, 2007 of Northern Regional Power Committee.

4.48 The Petitioner's share in CSGS unallocated quota vary from time to time based on the allocation made to Delhi depending upon power requirement and power shortage in different States. Therefore, the Commission has considered average of monthly weighted average share of firm and unallocated power for Delhi in CSGS over past 22 month i.e. from April'06 to November'07 sourced from Final REA of March 2007,

** Total installed capacity of 840 MW, 756 MW allocated to Delhi.

Notification no NRPC/SE(C)/ABT-REA/2006-07 dated 14 April, 2007 and Final REA of November 2007, Notification no NRPC/SE(C)/ABT-REA/2007-08 dated 22 December, 2007.

4.49 Delhi's share in Central Sector Generating Stations is summarized below.

**Table 56: Delhi's Allocation from Central Sector Generating Stations (CSGS)**

| Plant | Installed Capacity MW | Firm Allocation of Delhi (%) | Avg Weighted Share of firm and unallocated share (%) |
|---|---|---|---|
| **NTPC** | | | |
| Singrauli | 2000 | 7.50% | 8.72 % |
| Rihand-I | 1000 | 10.00% | 11.21 % |
| Rihand- II | 1000 | 12.60% | 13.82 % |
| Unchahar- I | 420 | 5.71% | 6.10 % |
| Unchahar- II | 420 | 11.19% | 12.41 % |
| Unchahar- III | 210 | 13.81% | 14.62 % |
| Anta | 419 | 10.50% | 11.72 % |
| Auraiya | 663 | 10.86% | 11.71% |
| Dadri GPP | 830 | 10.96% | 11.53% |
| Farakka | 1600 | 2.79% | 2.79% |
| Kahalgaon-I | 840 | 9.82% | 9.82% |
| **NHPC** | | | |
| Dulhasti HEP | 390 | 12.83% | 13.96 % |
| Dhauliganga HEP | 280 | 13.81% | 14.43 % |
| Chamera-I HEP | 540 | 7.90% | 7.90 % |
| Chamera-II HEP | 300 | 13.33% | 15.94 % |
| Bairasiul HEP | 180 | 11.00% | 11.00 % |
| Salal HEP | 690 | 11.62% | 11.62 % |
| Tanakpur HEP | 94 | 12.81% | 12.81 % |
| Uri HEP | 480 | 11.04% | 11.04 % |
| **SJVNL** | | | |
| Nathpa Jhakri HEP | 1500 | 9.47% | 10.28% |
| **THDC** | | | |
| Tehri-I HEP | 1000 | 10.30% | 11.04% |
| **NPCIL** | | | |
| NAPS | 440 | 10.68% | 11.23% |
| RAPS-B III Unit | 220 | 0.00% | 1.42% |
| RAPP-B IV Unit | 220 | 0.00% | 1.42% |
| Tala HEP | 1020 | 2.94% | 2.94% |

4.50 As per the PPA reassignment Order of the Commission, the Petitioner has been assigned 27.24% share from the weighted average allocated share for Delhi from CSGS.

## Energy Availability

### Energy Availability from the Generating Stations in Delhi System

### Petitioner's Submission

4.51 The Petitioner has submitted that for projecting energy availability from Generating Stations in Delhi during the Control Period under the MYT regime, it has considered the programmed generation targets as specified by Central Electricity Authority (CEA) for the FY08. The auxiliary consumption for the Control Period has been considered based on the norms approved by the Commission in its Terms and Conditions for Determination of Generation Tariff, Regulations, 2007. The auxiliary consumption for BTPS and Dadri TPS has been considered based on the past trends.

4.52 The summary of energy purchase estimates based on the Energy Sent Out (ESO) from individual generating station in Delhi System, in the Control Period under the MYT regime is tabulated below:

**Table 57: Energy Available (MU) from Generating Stations in Delhi System (Petitioner's Estimate)**

| Plant | FY 08 | FY09 to FY11 |
|---|---|---|
| BTPS | 763.37 | 643.33 |
| Dadri | 2208.45 | 1861.15 |
| Rajghat | 280.22 | 236.15 |
| IP Station | 245.86 | 207.19 |
| GT | 639.98 | 539.33 |
| PPCL | 855.89 | 721.30 |

### Commission's Analysis

4.53 The Commission has estimated net energy sent out to the Petitioner by considering generation at target PLF and auxiliary consumption as approved in the Commission's MYT Orders for state generating stations. For BTPS and Dadri TPS, available gross generation for the Control Period is considered based on the actual PLF achieved by the plants in previous years and net sent out energy is estimated after deducting auxiliary consumption as approved in relevant CERC Orders.

4.54 The effective share of the Petitioner is applied on the energy sent out to estimate the energy availability from the respective Stations. Key parameters considered by the Commission to project the energy available from the generating stations in Delhi system during the Control Period and Petitioner's share of energy in each station are summarized below in the table.

**Table 58: Energy Available to BYPL from Generating Stations in Delhi System during Control Period**

| Plant | Capacity (MW) | PLF (%) | Auxiliary Consumption (%) | Energy Sent out (MU) | BYPL Share in FY08 (MU) | BYPL Share in FY09 (MU) | BYPL Share in FY10-FY11 (MU) |
|---|---|---|---|---|---|---|---|
| BTPS | 305 | 84.1% | 11.00% | 2000.77 | 763.37 | 628.32 | 545.01 |
| Dadri | 756 | 96.05% | 9.00% | 5788.24 | 2,208.45 | 1,817.74 | 1,576.72 |
| Rajghat | 135 | 70.0% | 11.28% | 734.44 | 280.22 | 230.64 | 200.06 |
| IP Station | 185 | 45.0% | 11.64% | 644.38 | 245.86 | 202.36 | 175.53 |
| GT | 282 | 70.0% | 3.00% | 1677.35 | 639.98 | 526.75 | 456.91 |
| PPCL | 330 | 80.0% | 3.00% | 2243.26 | 855.89 | 704.47 | 611.06 |
| **Total** | **1993** | | | **13088.44** | **4993.76** | **4110.29** | **3565.29** |

### Energy Availability from the Central Sector Generating Stations

#### Petitioner's Submission

4.55 The Petitioner has estimated quantum of energy available from CSGS for FY08 based on programmed generation targets as specified by CEA for FY08. For the remaining three years of the Control Period also, the Petitioner has considered the generation targets as specified by CEA. The auxiliary consumption for each of the stations has been considered based on the norms in the CERC/Government guidelines and past performance. Further the effective share of the Petitioner is applied on the energy sent out to estimate the energy purchases from the respective stations.

#### Commission's Analysis

4.56 For the NTPC stations, the Commission has estimated available gross generation for the Control Period based on the actual PLF achieved by the plants in previous years. Net energy sent out is estimated after deducting auxiliary consumption as approved in relevant CERC Orders.

4.57 For NHPC's hydro electric projects, the Commission has taken gross generation for the Control Period at the CEA generation target for FY08. Gross generation for other hydro plants namely Nathpa Jhakri and Tehri has been considered based on the CEA generation targets for FY08. For estimating generation from Tala HEP, the Commission has considered the design energy sent out.

4.58 For NPCIL stations, the Commission based on the past performance has assumed PLF of 35% and 60 % for NAPS and RAPS respectively.

4.59 The effective share of the Petitioner is applied on the energy sent out to estimate the energy availability for the Petitioner from respective stations. Energy sent out from the CSGS and the Petitioner's share of energy in each station are summarized below in the table:

**Table 59: Energy Available to BYPL from Central Sector Generating Stations during the Control Period**

| Plant | Capacity (MW) | PLF (%) | Auxiliary Consumption* (%) | Energy Sent out (MU) | BYPL Share (MU) |
|---|---|---|---|---|---|
| **NTPC** | | | | | |
| Singrauli | 2000 | 87.19% | 7.75% | 14,092.20 | 334.73 |
| Rihand-I | 1000 | 86.98% | 8.50% | 6,972.04 | 212.99 |
| Rihand- II | 1000 | 94.32% | 7.50% | 7,642.59 | 287.71 |
| Unchahar- I | 420 | 95.13% | 8.77% | 3,192.98 | 53.05 |
| Unchahar- II | 420 | 92.53% | 9.00% | 3,098.03 | 104.73 |
| Unchahar- III | 210 | 90.86% | 9.00% | 1,521.06 | 60.57 |
| Anta | 419 | 77.41% | 3.00% | 2,756.08 | 88.02 |
| Auraiya | 663 | 75.62% | 3.00% | 4,260.3 | 135.87 |
| Dadri GPP | 830 | 75.51% | 3.00% | 5,325.62 | 167.28 |
| Farakka | 1600 | 80.65% | 7.56% | 10,449.33 | 79.32 |
| Kahalgaon-I | 840 | 88.42% | 9.00% | 5,920.73 | 158.31 |
| **NHPC** | | | | | |
| Dulhasti HEP | 390 | | 1.00% | 1,698.84 | 64.61 |
| Dhauliganga HEP | 280 | | 1.00% | 1,089.00 | 42.81 |
| Chamera-I HEP | 540 | | 1.00% | 1,980.00 | 42.61 |
| Chamera-II HEP | 300 | | 1.00% | 1,485.00 | 64.48 |
| Bairasiul HEP | 180 | | 1.00% | 771.21 | 23.11 |
| Salal HEP | 690 | | 1.00% | 3,051.18 | 96.58 |
| Tanakpur HEP | 94 | | 1.00% | 412.83 | 14.41 |
| Uri HEP | 480 | | 1.00% | 2,561.13 | 77.02 |
| **SJVNL** | | | | | |
| Nathpa Jhakri HEP | 1500 | | 1.20% | 6,323.20 | 177.12 |
| **THDC** | | | | | |
| Tehri-I HEP | 1000 | | 1.00% | 2745.27 | 82.59 |
| **NPCIL** | | | | | |
| NAPS | 440 | 35% | 9.50% | 1,220.88 | 37.33 |
| RAPS-B iii unit | 220 | 60% | 9.50% | 1,046.47 | 4.05 |
| RAPS-B iv unit | 220 | 60% | 9.50% | 1,046.47 | 4.05 |
| Tala HEP | 1020 | | 1.00% | 3,980.63 | 31.88 |
| **Total** | | | | **94,643.10** | **2,445.23** |

** includes transformational losses for Hydro Projects*

**Energy Availability from the Future Projects**

**Petitioner's Submission**

4.60 The Petitioner in its petition has assumed that some energy will be available from the new generating stations scheduled to be commissioned during the Control Period.

4.61 BYPL has considered commissioning of Kahalgaon II, Koldam HEP, Chandrapura I, Chandrapura II and Dadri Stage-II during different years of the Control Period and has accounted for energy available from them accordingly.

**Commission's Analysis**

4.62 The Commission has considered the commissioning schedule of the future stations based on the data available from CEA website and as per the discussion held with all the concerned DISCOMs.

4.63 Energy available from these future stations has been considered as per the allocation share specified in PPA reassignment Order of the Commission. The Commission has assumed PLF of 80% for thermal and design energy for hydro plants respectively. Auxiliary consumption has been assumed at 9% for coal fired thermal projects and 1% for hydro projects (including 0.5% transformational loss).

4.64 Damodar Valley Corporation (DVC) has agreed to supply energy from December'06 onwards. There is a PPA signed between DVC and Delhi utilities for power supply of 100 MW in December'06 and going upto 2500 MW in April'11 from future projects namely Chandrapura-I, Chandrapura-II, Mejia, Maithon, Koderma and Durgapur stations. Due to delay in commissioning of new projects and some other reasons, energy available from DVC is expected to be much below than PPA obligation. Therefore the Commission has considered total energy available to Delhi from DVC as sum of projections made by the DISCOMs. Energy available to the Petitioner from DVC is calculated by applying the ratio as specified in reassignment of PPA Order to total power available to Delhi from DVC.

4.65 Energy availability to the Petitioner during the Control Period from future projects as considered by the Commission is summarised below in the table:

**Table 60: Energy available (MU) to BYPL from Future Power Projects**

| Plant | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| **NTPC Stations** | | | | |
| Dadri Stage-II (2x490 MW) | - | - | - | 318.48 |
| Barh (3 x 660 MW) | Not in Control period | | | |
| Kahalgaon Stage-II (3x500 MW) | 9.17 | 165.03 | 165.03 | 165.03 |
| North Karanpura (3x660 MW) | Not in Control period | | | |
| Badarpur Stage-IV (2x490 MW) | Not in the Control period | | | |

| Plant | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Koldam HEP (4x200 MW) | - | - | 17.34 | 90.56 |
| **NHPC** | | | | |
| Sewa-II | Not in the Control period | | | |
| Kishan Ganga (330 MW) | Not in the Control period | | | |
| Kotibhel Stage I-A (195 MW)# | Not in the Control period | | | |
| Kotibhel Stage I-B (320 MW)# | Not in the Control period | | | |
| Kotibhel Stage II (530 MW)# | Not in the Control period | | | |
| Parbati HEP-II (800 MW) | Not in the Control period | | | |
| Parbati HEP-III (520 MW) | Not in the Control period | | | |
| Pakaldul HEP (1000 MW) | Not in the Control period | | | |
| Chamera-III (231 MW) | Not in the Control period | | | |
| Uri-II (240 MW) | Not in the Control period | | | |
| **THDC** | | | | |
| Tehri Pump Storage (4x250 MW) | Not in the Control period | | | |
| Koteshwar HEP (400 MW) | Not in the Control period | | | |
| **NPCIL** | | | | |
| RAPS 5 & 6 (2x220 MW) | - | 51.96 | 83.14 | 83.14 |
| **Aravali Power Corp. Jhajjar** | | | | |
| NTPC Jhajjar | Not in the Control period | | | |
| **Ultra Mega Power Project** | | | | |
| Sasan, MP (4000 MW) | Not in the Control period | | | |
| **SJVNL** | | | | |
| Rampur HEP (434 MW) | Not in the Control period | | | |
| **Delhi Stations** | | | | |
| Pragati-II (330 MW) | Not in the Control period | | | |
| Pragati-III(3x350 MW) | Not in the Control period | | | |
| **DVC Stations** | | | | |
| As per DISCOMs | 85.18 | 266.05 | 674.38 | 697.57 |

### Other Sources, Bilateral and Short Term Arrangements and Banking

### Petitioner's Submission

4.66 The Petitioner has submitted that considering the current demand supply gap position, the Petitioner is constrained to purchase power from all the available sources including short term power purchase from traders to mitigate the demand supply gap and the Petitioner has entered into contracts for short term power purchase with traders / generators viz. PTC (HPSEB, etc) KSEB, DVC, etc. The Petitioner has estimated that in FY08, 270 MUs at Rs 194 Cr shall be purchased from bilateral sources.

4.67 The Petitioner has assumed that during the Control Period it would have the full allocation of unallocated power of 299 MW that would bridge the demand supply gap and any surplus arising out of the said allocation would help BYPL to reduce its power purchase cost.

4.68 The Petitioner has assumed an average rate of Rs. 3.00 per unit for sale of such surplus power available during the Control Period.

**Commission's Analysis**

4.69 The Commission's estimates indicate that licensee has surplus energy available from long term arrangements for each year of the Control Period than required quantum of power. However, the Commission has considered that the Petitioner needs to purchase Power through short term arrangements to meet seasonal peak demand.

4.70 While projecting power purchase quantum and cost for FY08, the Commission has included actual power purchase from bilateral and short term arrangements upto December 2007. For January 2008 – March 2008, an additional 100 MUs from bilateral purchase through intra-state sources has been estimated by the Commission while approving the power purchase cost for FY08.

4.71 For the remaining Control Period, the Commission has assumed that 5% of net annual power requirement shall be required to be sourced through bilateral purchases and short term arrangements with trading companies for meeting seasonal peak demand in summer and winter months. Further, the Commission has considered that 25% of such short term peak power shall be available from intra-state sources and 75% through inter-state sources. Further, the Commission has also assumed that 20% of deficit power procured from inter-state sources will be coming through banking arrangements and balance is bilateral purchase through short term arrangements / trading companies.

4.72 The Commission has assumed that the surplus power available in non peak hours will be sold inter-state and intra-state in ratio of 75:25.

4.73 Quantum of power purchase from bilateral purchases for the Control Period has been summarised in the table below.

**Table 61: Bilateral/ Short term Purchase by BYPL**

| Bilateral Purchase – MUs | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Intra-State | (56.72)* | 62.78 | 64.40 | 69.99 |
| Inter-State Bilateral | (954.98) | 150.67 | 154.56 | 167.97 |
| Inter –State Banking | | 37.67 | 38.64 | 41.99 |

* 156.72 MUs sale for April 2007-December2007 (actual) and 100 MUs Purchase for January 2008-March2008

### Power Purchase Cost for the Control Period

#### Allocation from Existing Power Projects

#### Petitioner's Submission

4.74 For estimating power purchase cost, following assumptions have been made by the Petitioner:

(a) The annual fixed charges (in proportion to the Petitioner's share) applicable in FY08 and FY09 for central sector generating stations are derived from the relevant Tariff Order issued by CERC for the respective stations. The annual fixed charges for FY10 and FY11 have been considered at same level as that for FY09 on the assumption that any increase in Operation & Maintenance cost will be offset by the decrease in other fixed charges.

(b) The variable cost for FY08 is based on actual power purchase bills, including Fuel Price Adjustment (FPA), received by the Petitioner during the period April 2007- June 2007. Escalation of 3% p.a. for future years on the variable charge for FY08 is considered by the Petitioner.

(c) Incentives as applicable for generation above target PLF.

(d) Income tax considering the actual paid in the month of June 2007 and expected payment during FY08.

(e) Net energy available from hydro stations is derived after deducting the free share.

(f) Power purchase cost for NHPC stations is based on the actual power purchase bills for the months April 2007 to June 2007 for capacity charges, primary energy charges and secondary energy charges (if applicable).

(g) Single part tariff for Nuclear power stations based on the actual power purchase bills for the months from April 2007 to June 2007.

(h) Total power purchase cost has been estimated considering fixed charges, variable charges, FPA, Income tax, incentive and other charges.

(i) The average power purchase cost has been estimated based on ex-bus energy.

#### Commission's Analysis

4.75 The Commission has followed methodology similar to the Petitioner's approach for estimating cost of power purchase. Assumption made by the Commission for estimation of power purchase cost are listed below:

(a) The Commission has derived annual fixed charges (in proportion to the Petitioner's share) applicable in FY08 and FY09 for various central sector generating stations from the relevant Tariff Order issued by CERC. The annual fixed charges for FY10 and FY11 have been considered at same level as that for FY09 on the assumption that any increase in Operation & Maintenance cost will be offset by the decrease in other fixed charges.

(b) The fixed cost for State generating stations is taken as approved by the Commission in respective MYT Order for the Control Period FY08 to FY11.

(c) The variable cost including Fuel Price Adjustment (FPA) for the Control Period has been based upon the power purchase data for FY07, as submitted by DTL. An escalation of 3% and 4% has been applied for coal and gas/liquid fired plants respectively on the variable cost for subsequent years.

(d) For nuclear plants, based on the actual power purchase bill for FY07, single part tariff with 1% annual escalation has been considered.

(e) For hydro stations net charges payable has been derived after deducting the free share of power.

(f) Incentives payable are calculated as applicable for generation above target PLF.

(g) Income tax and any other charges payable has been considered at the same level as actual paid in FY07.

(h) Total power purchase cost has been estimated considering fixed charges, variable charges, FPA, Income tax, incentive and other charges.

4.76 The table below summarizes the total cost of power from various sources for each year of the Control Period:

**Table 62: Approved Cost of Power Purchase (Rs Cr)**

| Plant | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| **NTPC** | | | | |
| Singrauli | 42.50 | 43.61 | 44.53 | 45.47 |
| Rihand-I | 36.94 | 37.69 | 38.32 | 38.97 |
| Rihand- II | 48.86 | 49.44 | 50.30 | 51.19 |
| Unchahar- I | 10.65 | 10.90 | 11.12 | 11.34 |
| Unchahar- II | 20.23 | 20.67 | 21.10 | 21.54 |
| Unchahar- III | 13.27 | 13.41 | 13.66 | 13.93 |
| Anta | 23.29 | 24.08 | 24.87 | 25.69 |
| Auraiya | 41.85 | 43.31 | 44.77 | 46.28 |
| Dadri GPP | 56.95 | 57.90 | 59.82 | 61.82 |

| Plant | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Farakka | 13.74 | 21.03 | 21.47 | 21.92 |
| Kahalgaon-I | 29.76 | 37.99 | 38.80 | 39.64 |
| **NHPC** | | | | |
| Dulhasti HEP | 21.50 | 21.50 | 21.50 | 21.50 |
| Dhauliganga HEP | 8.16 | 8.16 | 8.16 | 8.16 |
| Chamera-I HEP | 5.19 | 5.27 | 5.27 | 5.27 |
| Chamera-II HEP | 18.10 | 17.55 | 16.15 | 17.55 |
| Bairasiul HEP | 1.86 | 1.91 | 1.91 | 1.91 |
| Salal HEP | 6.90 | 7.03 | 7.03 | 7.03 |
| Tanakpur HEP | 1.94 | 1.99 | 1.86 | 1.99 |
| Uri HEP | 12.05 | 10.86 | 10.86 | 10.86 |
| **SJVNL** | | | | |
| Nathpa Jhakri HEP | 49.07 | 49.07 | 49.07 | 49.07 |
| **THDC** | | | | |
| Tehri-I HEP | 28.91 | 28.91 | 28.91 | 28.91 |
| **NPCIL** | | | | |
| NAPS | 7.13 | 7.21 | 7.28 | 7.35 |
| RAPS-B III Unit | 1.11 | 1.12 | 1.13 | 1.14 |
| RAPP-B IV Unit | 1.11 | 1.12 | 1.13 | 1.14 |
| **Tala HEP** | 11.16 | 11.16 | 11.16 | 11.16 |
| **Generating Stations in Delhi System** | | | | |
| BTPS | 216.40 | 182.25 | 161.78 | 165.59 |
| Dadri | 502.91 | 424.59 | 376.77 | 385.49 |
| Rajghat | 78.97 | 67.67 | 59.61 | 60.94 |
| IP Station | 73.38 | 64.40 | 56.14 | 57.81 |
| GT | 129.08 | 111.79 | 99.76 | 102.69 |
| **PPCL** | 171.27 | 142.87 | 123.68 | 124.52 |
| **Total** | **1,684.25** | **1,526.44** | **1,417.89** | **1,447.85** |

### Cost of Power from Future Power Projects

### Petitioner's Submission

4.77 The Petitioner has considered an average cost of 252 Paisa per unit for Kahalgaon-II. DVC 500 MW plant and Chandrapura-I in FY09 escalated @ 3% p.a. Power from Chandrapura-II in FY10 has been considered at 260 Paisa per unit with 3% annual escalation and Dadri-II in FY11 has been considered at 289 Paisa per unit.

**Commission's Analysis**

4.78 The Commission has considered power purchase from coal based future projects at 250 Paisa per unit in FY08 and subsequently escalated at 3% p.a. Power purchase from future hydro projects is considered at 270 Paisa per unit in FY08 escalated at 3% p.a. Power from DVC future projects is considered at 300 Paisa per unit in FY08 escalated at 3% per annum.

**Cost of Power Purchase from Other Sources, Bilateral, Short Term Arrangements and Banking**

**Petitioner's Submission**

4.79 The Petitioner has estimated that average cost of bilateral purchase in FY08 at Rs 7.16/kWh. For rest of the Control Period, Petitioner has assumed that surplus energy available shall be sold at an average sale price of Rs 3.00 per unit.

**Commission's Analysis**

4.80 The Commission has considered actual cost of bilateral purchase up to December 2007 as submitted by the Petitioner. For rest of the Control Period, the Commission has considered bilateral purchase from intra-state sources at Rs 2.75 per unit and from inter-state sources at Rs 7.00 per unit.

4.81 The sale of surplus power available in non peak duration is considered at Rs 2.75 per unit for intra-state sale and Rs 4.00 for inter-state sale.

**Table 63: Approved Cost of Power Purchase for BYPL from Bilateral Purchase, UI, Banking and Short Term Arrangements during the Control Period (Rs Cr)**

<table>
<tr><th>Particulars</th><th>FY08</th><th>FY09</th><th>FY10</th><th>FY11</th></tr>
<tr><td>Bilateral Purchase</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Intra-State Bilateral</td><td>(15.60)</td><td>17.26</td><td>17.71</td><td>19.25</td></tr>
<tr><td>Inter-State Bilateral</td><td rowspan="2">(282.67)</td><td>105.47</td><td>108.19</td><td>117.58</td></tr>
<tr><td>Inter -State Banking</td><td>15.07</td><td>15.46</td><td>16.80</td></tr>
<tr><td>Bilateral Sale</td><td rowspan="2">(434.91)</td><td rowspan="2">(648.21)</td><td>(574.82)</td><td>(575.29)</td></tr>
<tr><td>Banking Sale</td><td>(15.46)</td><td>(16.80)</td></tr>
<tr><td>Net Bilateral Purchase/(Sale)</td><td>(733.18)</td><td>(495.34)</td><td>(448.91)</td><td>(438.46)</td></tr>
</table>

## Transmission Losses & Charges

**Petitioner's Submission**

4.82 The Petitioner has assumed interstate transmission loss equivalent to PGCIL transmission losses and intra-state transmission losses equivalent to DTL system losses.

4.83 The Petitioner has estimated PGCIL charges based on the capacity allocated to the Petitioner and 5% increase on the actual charges paid for the first three months of FY08. The Petitioner has also taken into account the additional capacity on account of addition of new stations and an escalation of 5% for future years during the Control Period for estimation of inter-state transmission charges. The intra-state transmission charges (DTL charges) for FY08 has been considered at 10% increase over the actual bills raised by DTL for the first three months of FY08. Subsequently an escalation of 5% has been applied for the future years.

**Commission's Analysis**

4.84 The Commission has estimated PGCIL losses at 3.5% for northern region and 3.0% for eastern region based on past trends. DTL losses have been estimated at 0.95% as approved by the Commission in MYT Tariff Order of DTL dated 20 December, 2007.

4.85 The Commission has estimated intra-state transmission charges payable to DTL by apportioning DTL's ARR amongst all utilities namely BRPL, BYPL, NDPL, MES and NDMC in proportion to their weighted average allocation of power in MW.

4.86 Inter-state transmission (PGCIL) charges have been estimated by first calculating per MW transmission charges paid to PGCIL by DTL in FY07 and multiplying it with total MW capacity allocation for the Petitioner in the respective years in projects located outside Delhi.

4.87 The summary of inter-state /intra-state transmission losses and charges as approved by the Commission is given in the table below:

**Table 64 : Transmission Losses and Charges for BYPL**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| **Intra-state transmission** | | | | |
| Transmission Losses ( MU) | 61.96 | 69.87 | 69.09 | 73.25 |
| Transmission Charges (Rs Cr) | 56.87 | 43.35 | 44.53 | 101.46 |
| **Inter-state transmission** | | | | |
| Transmission Losses (MU) | 143.40 | 193.41 | 213.39 | 236.64 |
| Transmission Charges (Rs Cr) | **56.20** | **53.30** | **55.32** | **91.41** |

## Energy Balance

4.88 Total power purchase for the Control Period as approved by the Commission based on certain assumption as detailed above has been summarized in the table below.

**Table 65 : Energy Balance for BYPL**

| Particular | FY 08 | | | FY 09 | | | FY 10 | | | FY 11 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MU | Rs Cr | Avg Cost* | MU | Rs Cr | Avg Cost | MU | Rs Cr | Avg Cost | MU | Rs Cr | Avg Cost |
| Power Purchase from CSGS# | 4748.01 | 1042.99 | 219.67 | 4825.24 | 1095.54 | 227.04 | 5041.07 | 1202.35 | 238.51 | 5455.97 | 1346.50 | 246.79 |
| Inter-State Bilateral Purchase | (954.98) | (282.67) | 296.00 | 188.33 | 120.53 | 640.00 | 193.20 | 123.65 | 640.00 | 209.96 | 134.38 | 640.00 |
| PGCIL losses | 143.40 | | | 193.41 | | | 213.39 | | | 236.64 | | |
| Power purchase from Delhi Stations$ | 2785.32 | 669.10 | 240.23 | 2292.55 | 568.99 | 248.19 | 1988.57 | 500.97 | 251.92 | 1988.57 | 511.54 | 257.24 |
| Intra-State Power Purchase | (56.72) | (15.60) | 275.00 | 62.78 | 17.26 | 275.00 | 64.40 | 17.71 | 275.00 | 69.99 | 19.25 | 275.00 |
| Power Available at Delhi Periphery | 6378.23 | 1413.83 | 221.66 | 7175.50 | 1802.32 | 251.18 | 7073.86 | 1829.22 | 258.59 | 7487.85 | 2011.67 | 268.66 |
| DTL loss | 61.96 | | | 69.87 | | | 69.09 | | | 73.25 | | |
| Power available to DISCOM | 6316.28 | | | 7105.63 | | | 7004.77 | | | 7414.61 | | |
| Sales realised | 3224.67 | | | 3489.72 | | | 3799.25 | | | 4367.25 | | |
| AT&C loss | 1719.06 | | | 1532.54 | | | 1352.80 | | | 1231.79 | | |
| Required Power | 4943.72 | 978.92 | 198.01 | 5022.26 | 1169.18 | 232.80 | 5152.05 | 1254.40 | 243.48 | 5599.04 | 1419.58 | 253.54 |
| Surplus/(Deficit ) Power available at DISCOM Boundary | **1372.55** | **434.91** | **316.86** | **2083.37** | **633.14** | **303.90** | **1852.72** | **590.27** | **318.60** | **1815.57** | **592.09** | **326.12** |

** Average Cost in Paise/ unit*
*# Includes NTPC, NHPC, SJVNL, THDC, NPCIL, Dadri TPS and Future Stations*
*$ Includes PPCL, IP Station, Rajghat, GTPS, BTPS*

## Operation and Maintenance Expenses

4.89 The Petitioner has submitted individual projections of its Employee Expenses, Repairs and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses to arrive at the O&M expenses for the Control Period.

4.90 The Petitioner has submitted the total Operations and Maintenance (O&M) Expenses for the base year (FY07) as Rs. 222.50 Cr and projected the values for the four years of the Control Period as Rs. 251.59 Cr, Rs. 291.00 Cr, Rs. 327.87 Cr and Rs. 393.42 Cr respectively.

4.91 The Commission observes that the Petitioner has deviated from the approach proposed in the MYT Regulations, 2007 for determination of employee expenses and A&G expenses for the Control Period. In view of the above, the Commission has decided to determine the applicable O&M expenses for each year of the Control Period de novo.

4.92 As per the MYT Regulations, 2007 for determination of distribution tariff, employee and A&G expenses for the Control Period shall be determined using the following methodology:

$$EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1})$$

4.93 The inflation factor for the $n^{th}$ year ($INDX_n$) is determined using a combination of Consumer Price Index (CPI) and Wholesale Price Index (WPI) for the $n^{th}$ year as shown below:

$$INDX_n = 0.55*CPI_n + 0.45*WPI_n$$

### Determination of Inflation Factor

4.94 The Inflation Factor used for indexing the employee expenses and A&G expenses is determined using a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years.

4.95 Since, the CPI component is primarily considered to contribute towards employee expenses; the Commission has considered the CPI (overall) for Industrial Workers published by the Labour Bureau. The WPI component is linked to A&G costs and hence has been taken from the WPI (overall) published by the Central Statistical Organisation.

**Table 66: Actual CPI and WPI**

| Year | CPI (Overall) | % Growth YoY | WPI (Overall) | % Growth YoY |
|---|---|---|---|---|
| 2000-01 | 444.17 | | 155.59 | |
| 2001-02 | 463.33 | 4.3% | 161.34 | 3.7% |

| Year | CPI (Overall) | % Growth YoY | WPI (Overall) | % Growth YoY |
|---|---|---|---|---|
| 2002-03 | 481.75 | 4.0% | 166.85 | 3.4% |
| 2003-04 | 500.33 | 3.9% | 175.90 | 5.4% |
| 2004-05 | 519.50 | 3.8% | 187.23 | 6.4% |
| 2005-06 | 540.00 | 3.9% | 195.60 | 4.5% |

4.96 Based on these values, the Commission has calculated the annual growth in values of CPI (overall) for Industrial Workers and WPI (overall) for A&G expenses for the period FY01 – FY06 and has considered the same for determination of indices during the Control Period as given in the tables below.

**Table 67: Projected CPI and WPI during the Control Period**

| Year | Projected Growth in CPI | CPI (Overall) | Projected Growth in WPI | WPI (Overall) |
|---|---|---|---|---|
| 2006-07 | | 568.54 | | 209.75 |
| 2007-08 | 4.0% | 591.19 | 4.7% | 219.59 |
| 2008-09 | 4.0% | 614.75 | 4.7% | 229.88 |
| 2009-10 | 4.0% | 639.25 | 4.7% | 240.66 |
| 2010-11 | 4.0% | 664.72 | 4.7% | 251.95 |

4.97 The Commission has determined the inflation factor for the $n^{th}$ year ($INDX_n$) using a weighted average of CPI and WPI as specified in the MYT Regulations, 2007. The inflation factor is then used to calculate the escalation factor for each year ($INDX_n$/ $INDX_{n-1}$) which is used for projections of Employee and A&G expenses in each year of the Control Period, as shown in the table below.

**Table 68: Escalation Factor for the Control Period**

| Year | Index (Consolidated) | Escalation Factor |
|---|---|---|
| 2006-07 | 407.08 | |
| 2007-08 | 423.97 | 1.0415 |
| 2008-09 | 441.56 | 1.0415 |
| 2009-10 | 459.88 | 1.0415 |
| 2010-11 | 478.97 | 1.0415 |

## Employee Expenses

### Petitioner's Submission

4.98 The Petitioner has submitted gross employee expenses as Rs. 135.44 Cr, Rs. 153.57 Cr, Rs. 174.26 Cr and Rs 197.92 Cr for FY08, FY09, FY10, and FY11 respectively.

4.99 The Petitioner has submitted the employee expenses for FY07 as Rs. 107.08 Cr and has considered the same as the base for the Control Period. The Petitioner has considered the following factors while projecting the escalation factor for the employee expenses for the Control Period:

(a) Anticipated 6th Pay Commission report;

(b) Research of lead HR consultants on salary trends in the country;

(c) Initiatives undertaken to retain quality manpower and demand for employees in the power industry;

(d) Inflation during last 12 months;

(e) Increase in employees to cater to growth of consumers.

4.100 The Petitioner has projected its total employee costs for the Control Period considering different escalation rates for different components of the employee expenses. The annual growth rates for various components of employee expenses as proposed by the Petitioner are given below.

(a) Basic Salary: The year on year increase in Basic Salary for all the employees during the Control Period has been estimated at 24%, 11%, 11%, and 11% for FY08, FY09, FY10 and FY11 respectively.

(b) Dearness Allowance (DA): Annual estimated increase in DA is considered as 9%, 6%, 6% and 6% for FY08, FY09, FY10 and FY11 respectively.

(c) Terminal Benefits: Contribution to terminal benefits/liability fund is considered at 26% of Basic Salary and Dearness Allowance for each year of the Control Period.

(d) Other Allowances and expenses including HRA: Considered in proportion to the Basic Salary.

4.101 In addition to above, the Petitioner has also proposed a yearly expense of Rs. 35 Cr, Rs. 35 Cr, Rs. 35 Cr and Rs. 62.48 Cr towards SVRS amortization for each year of the Control Period.

4.102 The summary of the proposed employee expenses of the Petitioner for the Control Period is given in the table below.

**Table 69: Proposed Employee Expenses for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Salaries | 64.09 | 71.19 | 79.16 | 88.14 |
| Dearness Allowance including Dearness Pay | 16.54 | 20.89 | 25.96 | 31.82 |
| HRA | 14.59 | 16.38 | 18.45 | 20.82 |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Other Allowance & Relief | 8.91 | 10.41 | 12.17 | 14.24 |
| Honorarium/ Overtime | 1.68 | 1.76 | 1.85 | 1.94 |
| Bonus/ Ex-gratia | 7.30 | 8.03 | 8.83 | 9.71 |
| Other Cost (such as Medical, LTA, etc) | 9.51 | 10.71 | 12.01 | 13.63 |
| Terminal Benefits | 11.06 | 12.43 | 13.99 | 15.79 |
| **Total** | **135.44** | **153.57** | **174.26** | **197.92** |
| SVRS Amortization | 35.00 | 35.00 | 35.00 | 62.48 |
| **Gross Salary including SVRS amortization** | **170.44** | **188.57** | **209.26** | **260.40** |
| Less: Capitalisation | 6.77 | 7.68 | 8.71 | 9.90 |
| **Net Employee Expenses** | **163.67** | **180.89** | **200.55** | **250.50** |

4.103 The Petitioner has also submitted its estimates on the average number of employees across various categories for each year of the Control Period as given in the table below:

**Table 70: Number of Employees**

| Employee Functions | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| O&M | 2193 | 2208 | 2223 | 2238 |
| Technical Services | 587 | 587 | 587 | 587 |
| MRBD | 570 | 570 | 570 | 570 |
| Business | 1186 | 1206 | 1226 | 1246 |
| Shared | 1110 | 1130 | 1150 | 1170 |
| **Total** | **5646** | **5701** | **5756** | **5811** |

4.104 The Petitioner has allocated the net employee expenses using the following approach:

(a) The Petitioner has first allocated the net employee expenses projected for the Control Period into the different employee functions mentioned above in the proportion of the number of employees in the respective function to the total number of employees.

(b) The Petitioner has, thereafter, allocated the employee expenses apportioned to different employee functions between Wheeling Business and Retail Supply Business in the following manner:

**Table 71: Statement of Allocation of Employee Expenses between Wheeling & Retail Supply Business**

| Functions | Wheeling | Retail Supply |
|---|---|---|
| O&M | 90% | 10% |
| Technical Services | 90% | 10% |
| MRBD | 0% | 100% |
| Business | 0% | 100% |
| Shared | 50% | 50% |

4.105 The summary of employee expenses allocated to Wheeling and Retail Supply business as proposed by the Petitioner is as follows:

**Table 72: Proposed Allocation of Employee Expenses (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Wheeling | 84.72 | 93.48 | 103.46 | 129.00 |
| Retail Supply | 78.95 | 87.42 | 97.10 | 121.50 |

**Commission's Analysis**

4.106 The Commission has determined the employee expenses of the Petitioner for the Control Period using the methodology detailed in the MYT Regulations, 2007. Hence, the employee expenses for the nth year of the Control Period (EMPn) shall be determined using the employee expenses for the $(n-1)^{th}$ year (EMPn-1) and the escalation factor as determined above (Table 68).

4.107 For the Purpose of calculation of employee expenses for the Control Period the Commission has considered the trued-up employee expenses of FY07 (net of SVRS amortization) as the base employee expenses for the Control Period i.e. Rs. 107.08 Cr (Rs. 107.59 Cr – Rs. 0.51 Cr).

4.108 During the privatization process, part of the employees of the erstwhile DVB were transferred to BYPL. As per the Transfer Scheme, the terms and conditions of service applicable to the erstwhile Board employees in the Transferee Company shall in no way be less favourable than or inferior to that applicable to them immediately before the Transfer. Further, their services shall continue to be governed by various rules and laws applicable to them prior to privatization. Thus the salary/ compensation and promotion of the erstwhile DVB employees in BYPL are still governed by the rules and pay scales as specified by the GoNCTD.

4.109 In consideration of the above, the Commission has recognised the uncontrollable nature of the 6th Pay Commission recommendations in determination of employee expenses during the Control Period. The Commission has assumed that the revision in pay, if any, shall be applicable from January 1, 2006. The Commission has considered an increase of 10% in total employee expenses for the values in FY06 (3 months) and FY07 due to the same.

4.110 As the effect of any recommendations of the Pay Commission shall be applicable only to the employees transferred from the erstwhile Board, the Commission has directed the Petitioner to submit the break-up of the employee expenses between erstwhile Board employees and other employees. The Petitioner, in its reply to the Commission vide letter no. RCM/07-08/1021 dated 15 January 2008, has submitted the break-up of employee expenses for FY07 between erstwhile DVB employees and Non-DVB employees as Rs. 76.85 Cr and Rs. 30.23 Cr respectively.

4.111 Based on this, the Commission has calculated the revised employee costs for FY06 and FY07 (by adjusting the likely effect of the recommendations of the $6^{th}$ Pay

Commission) only on the employee expenses of the erstwhile DVB employees and the arrears arising out of it. Since the arrears on account of revision of employee expenses are expected to be paid only in FY09, the Commission has considered the payment of arrears in the employee expenses of FY09.

4.112 Similarly, the increase in salaries has been considered for each year, but the impact of such increase has only been taken from FY09 onwards. The Commission shall true-up the impact on account of 6th Pay Commission recommendations based on the actual impact of the same.

4.113 The summary of the revised employee expenses considering the effect of 6th Pay Commission recommendations is given below:

**Table 73: Revised Employee Expenses for FY06 and FY07 (Rs Cr)**

| Particulars | FY06 | FY07 |
|---|---|---|
| Employee Cost Approved in True up | 142.52 | 107.59 |
| Less: SVRS Amortization approved | 49.57 | 0.51 |
| **Net Employee Expenses** | 92.95 | 107.08 |
| Employee expenses pertaining to DVB employees | 66.71 | 76.85 |
| Employee expenses pertaining to Non – DVB employees | 26.24 | 30.23 |
| 10% escalation due to Pay Commission recommendations | 68.38 | 84.54 |
| **Revised Employee Cost** | **94.62** | **114.77** |

4.114 For the calculation of the employee expenses for the Control Period the Commission has considered the following:

(a) Revised employee expenses for the base year have been escalated as per the escalation factors mentioned in Table 68 to arrive at the employee expenses for the Control Period.

(b) All arrears due to the impact of the 6th Pay Commission recommendations would be payable in FY09. For the purpose of projecting the arrears arising due to recommendation of the 6th Pay Commission for FY08, the Commission has considered the difference between the employee expenses for FY08 arrived by escalating the revised employee expenses for FY07 (i.e. Rs. 94.62 Cr) and the employee expenses for FY08 arrived by escalating the trued up employee expenses (net of SVRS amortization) for FY07 (i.e. Rs. 107.08 Cr).

4.115 The capitalisation of employee expenses has been discussed later in this Tariff Order in the section "Capitalisation of Expenses and Interest charges".

4.116 The approved employee expenses of the Petitioner for each year of the Control Period are as shown below.

**Table 74: Approved Employee Expenses for the Control Period (Rs Cr)**

| Particulars | FY06 | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|---|
| Index(n)/ Index (n-1) | | | 1.0415 | 1.0415 | 1.0415 | 1.0415 |
| Employee Cost with revised base | 94.62 | 114.77 | 119.53 | 124.48 | 129.65 | 135.03 |
| Arrears | 1.67 | 7.68 | 8.00 | | | |
| **Total Employee Cost approved** | **92.95** | **107.08** | **111.52** | **141.83** | **129.65** | **135.03** |
| Less: Capitalisation | | | 4.23 | 8.27 | 6.23 | 6.38 |
| Net Employee Cost approved | | | **107.29** | **133.57** | **123.42** | **128.66** |

*SVRS Related Expenses*

4.117 In the MYT petition, the Petitioner has proposed yearly payments towards terminal benefits and pension liabilities arising to those who opted for VRS/VSS formulated by the Petitioner. The Commission has already discussed the treatment of VRS/VSS pension related expenses in the truing up section. The Commission follows that same approach, as discussed in the truing up section for the treatment of such expenses during the Control Period.

4.118 The Petitioner vide letter no. RCM/06-07/1051 dated 12 February 2008 submitted to the Commission that the Petitioner has opted for the actuarial valuation of the pension liabilities of employees who opted for VRS. The Petitioner has also mentioned that the pension for the employees who had opted for the SVRS would be paid till the date of their superannuation. The estimated pension liability for the Control Period submitted by the Petitioner is shown below.

**Table 75: Proposed SVRS Pension Expenses (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Pension | 11.46 | 11.57 | 11.71 | 17.46 |

4.119 The Commission has analyzed the submissions made by the Petitioner in this regard and has observed that the pension liabilities proposed by the Petitioner for the Control Period shows an increasing trend. The Commission is of the opinion that the pension liabilities for employees who have opted for VRS/VSS should decrease each year as greater number of employees reach their superannuation. The Commission has also observed that the submission made by NDPL in this regard show a declining trend. Thus, for approving the pension liability for BYPL, the Commission has considered the pension liability approved for FY07 as the base and has projected the base by considering the percentage reduction in the pension liabilities as proposed by NDPL for each year of the Control Period. The summary of the same is shown below.

**Table 76: Approved SVRS Pension Expenses (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| NDPL Proposal | 9.95 | 9.47 | 8.53 | 7.50 | 6.06 |
| % Reduction | | 4.82% | 9.93% | 12.08% | 19.20% |
| **Approved Pension Expenses for BYPL** | | **10.09** | **9.09** | **7.99** | **6.46** |

4.120 As already discussed in the truing up chapter, the Commission provisionally allows the monthly pension provisionally subject to the outcome of the Tribunal Order with the condition that any refund/relief provided on this account to the Petitioner by the Trust will be available for adjustment in the future employee expenses.

*Allocation into Wheeling and Retail Supply*

4.121 For the purpose of allocating the net employee expenses approved, the Commission has considered same approach as followed by the Petitioner.

(a) The Commission first allocated the net employee expenses approved for the Control Period into the different employee functions in the proportion of the number of employees in the respective function to the total number of employees as submitted by the Petitioner (Table 70).

(b) Thereby, the Commission has allocated the employee expenses apportioned to different employee functions between Wheeling Business and Retail Supply Business based on the allocation statement submitted by the Petitioner (Table 71).

(c) The Commission has also allocated the pension liabilities approved for the Control Period in the proportion of net employee expenses allocated to the respective businesses.

4.122 The Summary of net employee expenses approved by the Commission for Wheeling and Retail Supply business is shown below.

**Table 77: Approved Allocation of Employee Expenses (Rs. Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Net Employee Cost (Wheeling) | 58.09 | 72.17 | 66.55 | 69.24 |
| Pension liability (Wheeling) | 5.46 | 4.91 | 4.31 | 3.47 |
| **Total – Wheeling** | **63.55** | **77.08** | **70.86** | **72.72** |
| Net Employee Cost (Retail Supply) | 49.20 | 61.40 | 56.86 | 59.41 |
| Pension liability (Retail Supply) | 4.63 | 4.18 | 3.68 | 2.98 |
| **Retail Supply** | **53.82** | **65.57** | **60.54** | **62.39** |

## Administrative and General Expenses

### Petitioner's Submission

4.123 The Petitioner has submitted the Administrative and General (A&G) Expenses as Rs. 46.04 Cr, Rs. 55.44 Cr, Rs. 62.70 Cr and Rs. 69.70 Cr for FY08, FY09, FY10 and FY11 respectively. The Petitioner has projected the A&G Expenses for the Control Period by escalating the different components of A&G Expenses of the base year/ preceding year with the annual escalation rates between 5 to 15 %.

4.124 The Petitioner has benchmarked the proposed A&G expenses for the Control Period with the anticipated increase/ growth in number of consumers/load, Fuel cost, Sales and GFA.

4.125 The Petitioner has also submitted the component wise break-up of the A&G expenses and has allocated the A&G expenses proposed above between Wheeling Business and Retail Supply Business in the following manner:

**Table 78: Statement of Allocation of A&G Expenses between Wheeling & Retail Supply Business**

| Particular | Wheeling | Retail Supply |
|---|---|---|
| **Administrative Expenses** | | |
| Rent rates and taxes | 50% | 50% |
| Insurance | 80% | 20% |
| Revenue Stamp Expenses Account | 50% | 50% |
| Consultancy Charges | 10% | 90% |
| Technical Fees and Other Professional Charges | 50% | 50% |
| Conveyance And Travel | 64% | 36% |
| DERC License fee | 50% | 50% |
| Vehicle related expenses | 64% | 36% |
| **Other Expenses** | | |
| Fee And Subscriptions Books And Periodicals | 50% | 50% |
| Printing And Stationery | 30% | 70% |
| Advertisement Expenses | 30% | 70% |
| Contributions/Donations To Outside Institute/Association | 10% | 90% |
| Electricity Charges To Offices & Establishments | 50% | 50% |
| Water Charges | 50% | 50% |
| Entertainment Charges | 50% | 50% |
| Miscellaneous Expenses | 50% | 50% |
| **Legal Charges** | 10% | 90% |
| **Auditor's Fee** | 50% | 50% |
| **Material Related Expenses** | 90% | 10% |

4.126 The summary of the proposed A&G expenses, allocated to Wheeling and Retail Supply business submitted by the Petitioner is as follows:

**Table 79: Proposed Allocation of A&G Expenses (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| A&G - Total | 46.04 | 55.44 | 62.70 | 69.70 |
| A&G - Wheeling | 20.23 | 24.56 | 27.93 | 31.17 |
| A&G - Retail Supply | 25.82 | 30.88 | 34.77 | 38.53 |

**Commission's Analysis**

4.127 The Commission observes that the Petitioner has not projected its A&G expenses in line with the methodology proposed in the MYT Regulations, 2007. The Commission, here, would like to highlight that the escalation factor considered by the Commission takes care of increase in the different items of the A&G expenses as most of the items in the A&G expenses are linked to inflation and hence, no further escalation on the A&G expenses shall be required.

4.128 The Commission has, therefore, determined the A&G Expenses for the Control Period using the same methodology as specified in the MYT Regulation, 2007. The Commission has considered the trued-up A&G expenses for FY07 i.e. Rs. 40.10 Cr as the base for the Control Period and has escalated the same as per the escalation factor mentioned in Table 68. The Petitioner in the letter no RCM/07-08/1067 dated 16 February, 2008 and RCM/07-08/1103 dated 21 February, 2008 submitted that increase in bank charges are mainly due to refinancing of DPCL loans and expenses relating to bank charges for executing various agreements. It also submitted that it had incurred Rs 1.05 Cr towards refinancing of DPCL and SVRS loan and this expense is non-recurring in nature. The Petitioner has also submitted that out of the total consultancy charges incurred in FY07, Rs 0.63 Cr is non-recurring in nature. For determining the base for the Control Period, the Commission has excluded these one time expenses. The capitalisation of A&G Expenses has been discussed later in the Order in the section "Capitalisation of Expenses and Interest charges".

4.129 The summary of A&G Expenses as approved by the Commission is given in the table below.

**Table 80: Approved A&G Expenses for the Control Period (Rs Cr)**

| Particulars | Base Year | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| A&G Cost Approved in True-up | 40.10 | | | | |
| Adjustment | (1.68) | | | | |
| Revised Base | 38.42 | | | | |
| Index(n)/ Index (n-1) | | 1.0415 | 1.0415 | 1.0415 | 1.0415 |
| Total A&G Expenses | | 40.01 | 41.67 | 43.40 | 45.20 |
| Less: Capitalisation | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Net A&G Expenses** | | **40.01** | **41.67** | **43.40** | **45.20** |

*Allocation into Wheeling and Retail Supply*

4.130 For the purpose of allocating the A&G expenses approved above, the Commission has considered the following approach:

(a) The Commission has first allocated the Net A&G expenses approved for each year of the Control Period into the different components of the A&G expenses considering the ratio of the value approved for the respective component in FY07 with respect to the total A&G expenses approved in FY07 after truing-up.

(b) Thereafter, the Commission has allocated the expenses of each component into Wheeling and Retail Supply business based on the allocation statement submitted by the Petitioner (Table 78).

4.131 The Summary of the A&G expenses approved by the Commission for Wheeling and Retail Supply business is shown below.

**Table 81: Approved Allocation of A&G Expenses (Rs. Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Wheeling | 17.85 | 18.59 | 19.37 | 20.17 |
| Retail Supply | 22.16 | 23.08 | 24.04 | 25.03 |

## Repairs and Maintenance Expenses

### Petitioner's Submission

4.132 The Petitioner has submitted the R&M expenses for the Control Period as Rs. 41.88 Cr, Rs. 54.66 Cr, Rs. 64.62 Cr and Rs. 73.22 Cr for FY08, FY09, FY10 and FY11 respectively. The Petitioner has projected the R&M expenses at 3% of Opening GFA plus inflation increase of 7% on R&M expenses for previous year.

4.133 The Petitioner has also submitted the break-up of the R&M expenses proposed for the Control Period and has allocated the each head into Wheeling and Retail Supply business. The allocation statement proposed by the Petitioner is given in the table below.

**Table 82: Statement of Allocation of R&M Expenses between Wheeling & Retail Supply Business**

| Particulars | Wheeling | Retail Supply |
|---|---|---|
| Plant & Machinery | 100% | 0% |
| Building | 64% | 36% |
| Vehicles | 64% | 36% |
| Lines, Cables & Networks | 100% | 0% |
| Lease Rental | 100% | 0% |
| Labor | 90% | 10% |
| Any Other | 64% | 36% |

4.134 The table below summarises the proposed R&M Expenses submitted by the Petitioner for the Control Period.

**Table 83: Proposed R&M Expenses for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| R&M Total | 41.88 | 54.66 | 64.62 | 73.22 |
| R&M – Wheeling | 38.88 | 50.75 | 59.99 | 67.98 |
| R&M – Retail Supply | 3.00 | 3.91 | 4.63 | 5.24 |

**Commission's Analysis**

4.135 The Commission observes that the Petitioner has not followed the methodology specified in the MYT Regulations, 2007 for calculation of R&M expenses for the Control Period. The Commission has, however, determined the R&M expenses for the Control Period using the same methodology as specified in the MYT Regulations, 2007.

4.136 As per the MYT Regulation, 2007, the Repairs and Maintenance (R&M) expenses of the Petitioner for the Control Period has to be determined based on the following formula:

$$R\&M_n = K * GFA_{n-1}$$

4.137 Where, 'K' is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) for the $n^{th}$ year.

4.138 The Commission believes that since 'K' is being used for determination of R&M expenses for four years (FY08 – FY11), it should be derived using data for a longer period to reduce the impact of any deviations in any particular year. Hence, the Commission has determined the value of 'K' for the Control Period as the average of the individual 'K' for the last 5 years (FY03 to FY07).

4.139 The Commission has considered the approved values of R&M Expenses and opening GFA, as contained in previous Tariff Orders to calculate the respective values of 'K' for the previous years, as shown below.

**Table 84: Determination of 'K'**

| Particulars | FY03 | FY04 | FY05 | FY06 | FY07 |
|---|---|---|---|---|---|
| Opening GFA (Rs Cr) | 360.00 | 382.70 | 461.52 | 642.63 | 730.55 |
| R&M Expenses (Rs Cr) | 21.35 | 31.31 | 46.88 | 48.04 | 47.73 |
| **'K' (%)** | **5.93%** | **8.18%** | **10.16%** | **7.48%** | **6.53%** |

4.140 The Commission has observed that the K factor for BYPL has varied hugely between 5.93% and 10.16%. The average of K factor of BYPL for last five years is around 7.66% which seems to be very high as compared to the BRPL and NDPL where the average of K factor for last five year is 3.55% and 2.82% respectively. The Commission has noticed that as BYPL has a smaller GFA base when compared to BRPL and NDPL, the relative percentage of K factor is higher. The Commission has analysed this issue and noticed that the R&M expenses of BYPL has been allowed at actual but there is a significant difference in the addition in GFA approved by the Commission and that in the books of account of the Petitioner.

4.141 If the R&M expenses and opening GFA as submitted by the Petitioner for FY06, FY07 and FY08 is considered, the K factor would be calculated at 8.0%, 4.56% and 3.26% respectively. The K factor is showing a significant declining trend, which would like to continue in the future years. Thus, the Commission in consideration of the above approves a K factor of 3.70% on normative basis.

4.142 The Commission has determined the R&M Expenses for each year of the Control Period, considering the opening level of GFA (as approved by the Commission). The summary of R&M Expenses approved by the Commission for the Control Period is as shown below.

**Table 85: Approved R&M Expenses for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| GFA (Opening) | 871.63 | 1189.16 | 1539.16 | 1789.16 |
| K Factor | 3.70% | 3.70% | 3.70% | 3.70% |
| **R&M Expenses** | **32.25** | **44.00** | **56.95** | **66.20** |

*Allocation into Wheeling and Retail Supply*

4.143 For the purpose of allocating the R&M expenses approved above, the Commission has considered the following approach:

(a) The Commission has first allocated the total R&M expenses approved for each year of the Control Period under different heads of the R&M expenses, in the proportion of values of the respective heads in the R&M expenses for FY07 to the total R&M expenses approved by the Commission after truing up.

(b) Thereby, the Commission has allocated the expenses of each head into Wheeling and Retail Supply business based on the allocation statement submitted by the Petitioner (Table 82).

4.144 The Summary of the R&M expenses approved by the Commission for Wheeling and Retail Supply business is shown below.

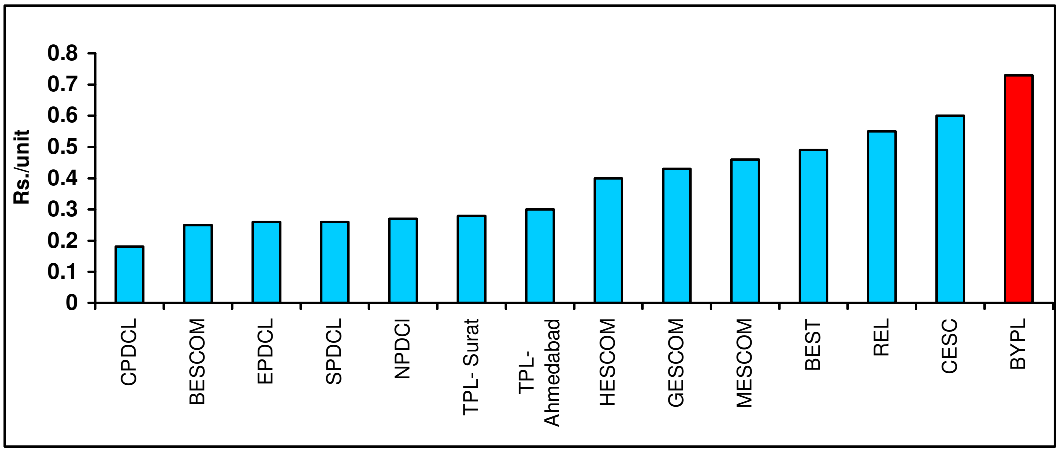
**Table 86: Approved Allocation of R&M Expenses (Rs. Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Wheeling | 29.94 | 40.85 | 52.87 | 61.46 |
| Retail Supply | 2.31 | 3.15 | 4.08 | 4.74 |

### Efficiency Factor

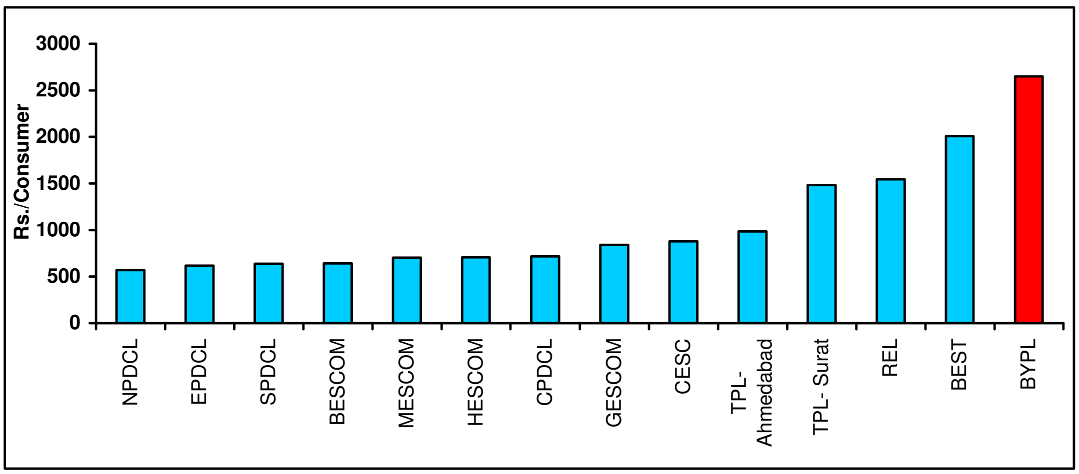
4.145 The Commission is of the view that O&M expenses trajectory for the Control Period shall be decided considering an expected annual efficiency improvement factor. The Commission has observed that the O&M cost of BYPL is on the higher side as compared to similar urban distribution companies in other states, thus, representing the inefficiencies in the system. The summary of the relative comparison of O&M cost of BYPL with respect to other utilities is shown below.

**Figure 1: O&M Expenses per unit of sales (FY08)**




* Source: Approved values of O&M expenses (FY08) in the Tariff Order for the respective utilities and BYPL proposal on O&M expenses for FY08

**Figure 2: O&M Expenses per Consumer (FY08)**




* Source: Approved values of O&M expenses (FY08) in the Tariff Order for the respective utilities and BYPL proposal on O&M expenses for FY08

4.146 Thus in consideration of the above, the Commission is of the view that Petitioner should try to bring efficiency into the system, thereby, reducing the burden of inefficiencies on to the consumers of Delhi. The Commission also directs the Petitioner to carry out a proper cost benefit analysis before taking up any new initiatives and submit the same for the approval to the Commission.

4.147 The Commission expects the Petitioner to improve its performance considering the repetitive nature of O&M works and introduction of new technologies. Hence the Commission has determined the efficiency improvement factor as 2%, 3% and 4% for FY09, FY10 and FY11 respectively.

4.148 The summary of total O&M Expenses approved by the Commission for the Control Period is provided in the table below.

**Table 87: Approved O&M Expenses for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Employee Expenses | 117.38 | 142.65 | 131.41 | 135.11 |
| R&M Expenses | 32.25 | 44.00 | 56.95 | 66.20 |
| A&G Expenses | 40.01 | 41.67 | 43.40 | 45.20 |
| **Total O&M Expenses** | **189.64** | **228.33** | **231.76** | **246.51** |
| Efficiency Improvement | 0% | 2% | 3% | 4% |
| **Net O&M Expenses** | **189.64** | **223.76** | **224.80** | **236.65** |
| Net O&M Expenses – Wheeling | 111.35 | 133.80 | 138.81 | 148.17 |
| Net O&M Expenses – Retail Supply | 78.29 | 89.96 | 86.00 | 88.48 |

### Truing up of O&M Expenses for the Control Period

4.149 As per the MYT Regulations, 2007 Clause 4.16 (b) (i), O&M expenses (viz. Employee expenses, A&G expenses and R&M expenses) is a controllable factor and hence the O&M expenses projected for Control Period, as per the methodology specified in the MYT Regulations, 2007 are not subjected to truing-up in the ARR.

4.150 The Commission, however, considering the uncontrollable nature of the recommendations of the 6$^{th}$ Pay Commission, shall allow the truing up of employee expenses to the extent it varies from the projections considering the effect of the recommendations of the Pay Commission.

4.151 Any variations on account of A&G expenses shall not be trued up and any surplus or deficit on account of over or under achievement shall be to the account of the Petitioner.

4.152 Any variations on account of R&M expenses shall not be trued up and any surplus or deficit on account of over or under achievement shall be to the account of the Petitioner. The Commission clarifies that though the value of GFA is subjected to truing up at the end of the Control Period, the Commission, however, shall not true-up R&M expenses as a consequence of the same.

## Capital Investment

### Petitioner's Submission

4.153 The Petitioner submitted its Business Plan including details of proposed Capital Investment to be made during the Control Period. The Petitioner submitted that load forecast and investment requirements for the Control Period have been projected considering the upcoming load growth, Commonwealth Games - 2010, DDA Master Plan - 2021, commitment of GoNCTD to make Delhi a world class City etc.

4.154 The Petitioner has also submitted that while developing the investment plan due weightage has been given to facets such as reduction of AT&C loss, strengthening of existing system, automation, and routine up-gradation for development of distribution network with the aim to maintain a reliable and quality power supply to its consumer.

4.155 The schemes proposed under the Capital Investment plan are broadly categorised as: EHV schemes, HV/LV schemes (Distribution schemes), Capacitors, SCADA, Distribution Management Systems, Geographical Information System (GIS), Automated Meter reading (AMR), Meters and Accessories, LTMP (modernisation of LT distribution system), various civil works and other related schemes.

4.156 The Petitioner had earlier proposed capital investment during the Control Period as Rs 178.41 Cr, Rs 317.04 Cr, Rs 247.36 Cr and Rs 232.30 Cr in FY08, FY09, FY10 and FY11 respectively, in the capital investment plan submitted on 17 August 2007. Subsequently, the investments have been modified in the Business Plan submitted in the MYT petition. The investment plan submitted by BYPL also includes the corresponding capitalization schedule. The summary of the investment plan proposed by the Petitioner has been provided in the tables below.

**Table 88: Summary of Proposed Resource Plan for the Control Period**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Expected Peak Demand (MW) | 987 | 1036 | 1088 | 1143 |
| Required Capacity Addition (MVA) | 99 | 104 | 109 | 114 |

**Table 89: Proposed Capital Investment during the Control Period (Rs Cr)**

| Scheme | FY08 | FY09 | FY10 | FY11 | Total |
|---|---|---|---|---|---|
| EHV | 67.59 | 83.89 | 77.00 | 78.53 | **307.01** |
| Distribution Schemes | 157.41 | 135.88 | 110.84 | 102.80 | **506.94** |
| HVDS | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| Capacitors | 1.24 | 1.34 | 1.34 | 1.34 | **5.26** |
| LTMP | 0.13 | 0.00 | 0.00 | 0.00 | **0.13** |
| Other Schemes | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| SCADA & DA | 1.96 | 22.88 | 7.03 | 3.00 | **34.87** |
| GIS | 2.81 | 2.47 | 0.27 | 0.10 | **5.65** |
| Meters | 36.80 | 28.76 | 25.51 | 25.45 | **116.53** |
| IT & Communication | 8.60 | 7.60 | 6.70 | 6.20 | **29.10** |
| Vehicles | 0.10 | 0.27 | 0.73 | 1.72 | **2.82** |
| Land & Buildings | 2.00 | 2.00 | 2.00 | 2.00 | **8.00** |
| AMR & DT Metering | 1.10 | 8.76 | 14.80 | 10.00 | **34.66** |
| Test Equipments, Tools & Tackles | 1.25 | 1.25 | 1.25 | 1.25 | **5.00** |
| Miscellaneous / Petty Works | 0.00 | 0.00 | 0.00 | 0.00 | **0.00** |
| **Total*** | **281.00** | **295.11** | **247.47** | **232.39** | **1055.97** |

***** *Includes IDC and Establishment expenses*

4.157 The Petitioner has also proposed to fund the capital investment through internal accruals, domestic loans, consumer contribution and depreciation etc.

**Commission's Analysis**

4.158 As regards to the capital investment of Rs. 1055.97 Cr for the Control Period, the Commission has carried out initial scrutiny for the proposed investment. The Commission is of the opinion that the Capital Investment proposed by the Petitioner needs a review for considering prudent investment in an efficient and economical manner.

4.159 The Petitioner has made adequate investments in the past for improvement of distribution system, as such for the Control Period the capital investment for system improvement should taper down and only the capital investment for expansion of the system to meet the growth in load and reduction in AT&C losses may be required.

4.160 The Commission reiterates the need for an integrated and a coordinated approach between the DTL and the three DISCOMs for a pragmatic capital expenditure plan to ensure that the benefits of system improvement are available to the end consumers. Keeping in view the present status of preparedness for the proposed investment and need for integrating the implementation plan, the Commission has approved the investment plan for the Control Period at a normative level considering actual investment made during the past years and assessing system requirement for the ensuing period.

4.161 The capital investment/ capitalisation approved by the Commission is after consideration of the disallowance as per findings of the Commission (as detailed in Annexure V to this Order). The Commission provisionally approves the following capital investment for the Control Period.

**Table 90: Approved Capital Investment during the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 | Total |
|---|---|---|---|---|---|
| Capital Investment Approved* | 175.00 | 300.00 | 300.00 | 200.00 | 975.00 |
| Disallowance (Refer Annexure V) | 57.47 | | | | |
| Net Capital Investment Approved | 117.53 | 300.00 | 300.00 | 200.00 | 917.53 |

** Including IDC and Establishment expenses*

4.162 The Commission re-iterates that the consideration of capital investment including capitalization of interest and establishment expenses during the Control Period for the purpose of determination of ARR does not imply the approval of schemes and the Petitioner has to obtain the scheme wise approval for the capital expenditure to be incurred during each year of the Control Period as per the annual investment plan drawn for the purpose. The Annual investment plan should be submitted prior to commencement of the respective financial year. The Petitioner is directed to submit the complete DPRs along with cost benefit analysis for schemes more than Rs. 2 Cr for obtaining investment approval of the Commission. The Petitioner shall also obtain the approval from the Commission for individual schemes less than Rs 2 Cr but aggregating to Rs 20 Cr. The Petitioner is advised to submit the quarterly progress report of actual capital investment in the format prescribed by the Commission within one month of the respective quarter. The Commission would also true-up the capital investment for each year at the end of the Control Period based on the actual capital investment carried out by the Petitioner.

## Assets Capitalisation

### Petitioner's Submission

4.163 The Petitioner has submitted the details of the capital works in progress for each year of the Control Period. The Petitioner has proposed to capitalize assets worth Rs. 440.14 Cr in FY08, Rs. 302.01 Cr in FY09, Rs. 263.45 Cr in FY10 and Rs. 238.41 Cr in FY11, as shown in the table below.

**Table 91: Proposed CWIP for the Control Period (Rs Cr)**

| Particular | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening CWIP | 268.49 | 109.35 | 102.45 | 86.47 |
| Additions to CWIP | 281.00 | 295.11 | 247.47 | 232.39 |
| Capitalisation of Investment | 440.14 | 302.01 | 263.45 | 238.41 |
| Investment capitalised out of opening CWIP till FY 07 | 214.79 | 53.70 | 0.00 | 0.00 |
| Investment capitalised out of opening CWIP for investments from FY 08 onwards | 0.00 | 55.65 | 102.45 | 86.47 |
| Investment capitalised out of fresh investment | 225.35 | 192.66 | 161.00 | 151.94 |
| Closing CWIP | **109.35** | **102.45** | **86.47** | **80.45** |

### Commission's Analysis

4.164 The Commission has analysed the available details to consider provisional capitalization for the Control Period and the same would be subjected to true-up at the end of the Control Period. The Petitioner is directed to submit actual details of capitalization for each year for the Control Period by September 30 of the following year to the Commission for scrutiny and year-wise capitalization of assets.

4.165 The Commission hereby directs the Petitioner to organize for scheme-wise completion and consequent capitalization of the assets in consonance with the commissioning/ commercial operation of the respective scheme which would be certified by the Electrical Inspector/ SLDC/ relevant authority and considered as an element of distribution system in operation.

4.166 The Petitioner is further directed that the relevant information be furnished in the formats prescribed by the Commission for capitalization of assets. The said formats are to be submitted along with the necessary statutory clearances/ certificates of Electrical Inspector, etc. for all EHV & HV works and certificate of SLDC for commissioning/ commercial operation. The capital expenditure incurred for deferred liabilities, residual works etc. within the original scope of scheme may be admitted by the Commission on merits and prudence checks. The Petitioner is advised to ensure timely completion of the works/ schemes as per the schedule stipulated in the proposals submitted to the Commission for approval.

4.167 Based on the above, the Commission has determined the following capitalisation schedule for the investments proposed during the Control Period. The capital investment/ capitalisation approved by the Commission is after consideration of the disallowance as per findings of the Commission (as detailed in Annexure V to this Order). The Commission would like to clarify that capitalisation approved below is provisional and is subjected to true-up on the basis of actual capital investment made and the schemes commissioned by the Petitioner.

**Table 92: Approved CWIP for the Control Period (Rs Cr)**

| Scheme | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening CWIP | 554.84 | 354.84 | 304.84 | 354.84 |
| Additions to CWIP | 117.53 | 300.00 | 300.00 | 200.00 |
| Capitalisation of Investment | 317.53 | 350.00 | 250.00 | 225.00 |
| Investment capitalised out of opening CWIP till FY 07 | 258.77 | 200.00 | 96.07 | 0.00 |
| Investment capitalised out of opening CWIP for investments from FY 08 onwards | | 0.00 | 3.93 | 125.00 |
| Investment capitalised out of fresh investment | 58.77 | 150.00 | 150.00 | 100.00 |
| Closing CWIP | 354.84 | 304.84 | 354.84 | 329.84 |

## Depreciation

### Petitioner's Submission

4.168 The Petitioner has submitted detailed calculations of depreciation using asset-wise details of GFA, and the rates of depreciation as specified in the MYT Regulations, 2007. The Petitioner has considered Rs. 3026.89 Cr as the opening level of GFA for FY08 and has submitted the additions in the subsequent years based on the capitalisation proposed for the respective year.

4.169 The summary of GFA as proposed by the Petitioner for the Control Period is provided in the table below.

**Table 93: Proposed Gross Fixed Assets (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| GFA (Opening) | 1284.31 | 1724.44 | 2026.45 | 2289.91 |
| Addition | 440.14 | 302.01 | 263.45 | 238.41 |
| Reduction | 0.00 | 0.00 | 0.00 | 0.00 |
| GFA (Closing) | 1724.44 | 2026.45 | 2289.91 | 2528.32 |

4.170 In the MYT petition, the Petitioner has proposed the following depreciation (inclusive of AAD) for the Control Period.

**Table 94: Proposed Depreciation (Inclusive of AAD) for the Control Period (Rs Cr)**

| Particulars | Rate | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Land & Land Rights | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 |
| Offices & Showrooms | 1.80% | 1.65 | 1.19 | 1.66 | 1.69 |
| Temporary Structure | 18.00% | 0.17 | 0.12 | 0.17 | 0.17 |
| Other Civil Works | 1.80% | 0.01 | 0.01 | 0.01 | 0.01 |
| Transformers | 3.60% | 15.48 | 13.19 | 21.72 | 25.02 |
| Batteries | 18.00% | 2.81 | 1.97 | 2.80 | 2.90 |
| Switchgears, Control gear & Protection | 3.60% | 14.16 | 12.62 | 19.65 | 21.63 |
| Overhead lines upto 11kV | 3.60% | 14.63 | 13.99 | 23.16 | 26.09 |
| Underground cables upto 11kV | 2.57% | 17.32 | 14.56 | 23.45 | 26.55 |
| Lightening Arrestors | 3.60% | 0.38 | 0.27 | 0.37 | 0.38 |
| Communication equipment | 6.00% | 0.45 | 0.85 | 1.85 | 2.47 |
| Meters | 6.00% | 19.25 | 15.43 | 23.97 | 26.46 |
| Vehicles | 18.00% | 1.50 | 1.07 | 1.62 | 1.97 |
| Furniture & fixtures | 6.00% | 0.25 | 0.22 | 0.38 | 0.45 |
| Office Equipments | 6.00% | 0.86 | 0.64 | 0.96 | 1.03 |
| Computers | 6.00% | 2.18 | 1.50 | 2.08 | 2.09 |
| Motor and Pump | 18.00% | 0.62 | 0.43 | 0.59 | 0.60 |
| Fault Locating Equipment | 3.60% | 2.07 | 1.42 | 1.97 | 1.98 |
| Any other items | 0.00% | 0.45 | 0.31 | 0.44 | 0.45 |
| **Depreciation** | | **94.23** | **79.79** | **126.86** | **141.93** |

4.171 The Petitioner, subsequently, during the analysis of the Petition has submitted the revised values for the depreciation for the Control Period vide letter dated 26 December 2007. The summary of revised depreciation proposed by the Petitioner is provided in the table below.

**Table 95: Revised Depreciation (Inclusive of AAD) for the Control Period (Rs Cr)**

| Particulars | Rate | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Land & Land Rights | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 |
| Offices & Showrooms | 1.80% | 1.65 | 1.19 | 1.67 | 1.69 |
| Temporary Structure | 18.00% | 0.17 | 0.12 | 0.17 | 0.17 |
| Other Civil Works | 1.80% | 0.01 | 0.01 | 0.01 | 0.01 |
| Transformers | 3.60% | 15.48 | 13.19 | 21.76 | 25.09 |
| Batteries | 18.00% | 2.81 | 1.97 | 2.80 | 2.90 |
| Switchgears, Control gear & Protection | 3.60% | 14.16 | 12.62 | 19.69 | 21.68 |
| Overhead lines upto 11kV | 3.60% | 14.63 | 13.99 | 23.21 | 26.17 |
| Underground cables upto 11kV | 2.57% | 17.32 | 14.56 | 23.49 | 26.62 |

| Particulars | Rate | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Lightening Arrestors | 3.60% | 0.38 | 0.27 | 0.38 | 0.38 |
| Communication equipment | 6.00% | 0.45 | 0.85 | 1.86 | 2.47 |
| Meters | 6.00% | 19.25 | 15.43 | 24.01 | 26.54 |
| Vehicles | 18.00% | 1.50 | 1.07 | 1.63 | 1.98 |
| Furniture & fixtures | 6.00% | 0.25 | 0.22 | 0.38 | 0.45 |
| Office Equipments | 6.00% | 0.86 | 0.64 | 0.96 | 1.03 |
| Computers | 6.00% | 2.18 | 1.50 | 2.08 | 2.10 |
| Motor and Pump | 18.00% | 0.62 | 0.43 | 0.60 | 0.60 |
| Fault Locating Equipment | 3.60% | 2.07 | 1.42 | 1.98 | 1.99 |
| Any other items | 0.00% | 0.45 | 0.31 | 0.44 | 0.45 |
| **Depreciation** | | **94.23** | **79.79** | **127.11** | **142.32** |

4.172 The Petitioner has also submitted the allocation statement for allocating each asset of the GFA and its respective depreciation cost into Wheeling and Retail Supply business. The summary of allocation statement proposed by the Petitioner is shown below.

**Table 96: Statement of Allocation of GFA between Wheeling & Retail Supply Business**

| Particular | Wheeling | Retail Supply |
|---|---|---|
| Building and Civil Works | | |
| Offices & Showrooms | 64% | 36% |
| Temporary Structures | 100% | 0% |
| Other Civil Works | 100% | 0% |
| Plant & Machinery | | |
| Transformer +100kVa | 100% | 0% |
| Transformer -100kVa | 100% | 0% |
| Switchgear, Control gear & Protection | 100% | 0% |
| Batteries | 100% | 0% |
| Line Cable Networks etc. | | |
| Overhead lines upto 11 kV | 100% | 0% |
| Underground cables upto 11 kV | 100% | 0% |
| Lightening Arrestors | 100% | 0% |
| Communication Equipment | 50% | 50% |
| Meters | 0% | 100% |
| Vehicles | 64% | 36% |
| Furniture & Fixtures | 64% | 36% |
| Other Equipment | 64% | 36% |
| Computers | 50% | 50% |
| Motor & Pump | 64% | 36% |
| Fault Locating Equipment | 100% | 0% |
| Any Other Item | 100% | 0% |

4.173 Based on the above allocation statement the Petitioner has submitted the break-up of GFA and depreciation into Wheeling and Retail Supply business. The Summary of the same is shown in the table below.

**Table 97: GFA and Depreciation for Wheeling and Retail Business (Rs. Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Total GFA (Opening) | 1284.31 | 1724.44 | 2026.45 | 2289.91 |
| GFA – Wheeling | 1067.02 | 1463.70 | 1732.33 | 1965.94 |
| GFA - Retail Supply | 217.29 | 260.75 | 294.13 | 323.97 |
| Depreciation – Wheeling* | 71.92 | 61.91 | 99.05 | 111.12 |
| Depreciation – Retail Supply* | 22.32 | 17.88 | 27.81 | 30.81 |

** No Revised figures submitted by the Petitioner after revising the depreciation*

**Commission's Analysis**

4.174 The Commission has analyzed the submission made by the Petitioner on the GFA and has found that the Opening value of GFA for FY08 as submitted by the Petitioner is different from the closing value of GFA mentioned in the audited accounts of the Petitioner in FY07 (Rs. 1,249.93 Cr) and also with the closing value of GFA approved by the Commission in the true-up for FY07 (Rs. 871.63 Cr).

4.175 During the technical validation sessions, the Petitioner clarified that as submitted in its MYT petition, it has additionally capitalised R&M and A&G expenses of the tune of Rs. 22.04 Cr and Rs. 12.34 Cr in FY03 and FY04 and thereby explaining the difference of Rs. 34.38 Cr between the value of GFA in the audited accounts and that submitted in the petition.

4.176 The Commission, here, would like to highlight that the difference in the values of GFA in the audited accounts of the Petitioner and that approved by the Commission is due to the difference in capitalisation considered by the Petitioner and the Commission in the respective years. Thus, for arriving at the opening value of GFA for FY08 the Commission has considered the closing value of GFA for FY07 approved by the Commission after truing up i.e. (Rs. 871.63 Cr).

4.177 The Commission has also allocated the closing balance of GFA for FY07 into different asset categories in the same ratio as that in the closing balance of GFA in the submission made by the Petitioner for FY07.

**Table 98: Opening GFA for FY08 (Rs Cr)**

| Particulars | FY07 (Petition) | Ratio (%) | FY07(True-Up) |
|---|---|---|---|
| Land & Land rights | 0.00 | 0.00% | 0.00 |
| Building and Civil Works | 54.35 | 4.23% | 36.88 |
| Hydraulic Works | 0.00 | 0.00% | 0.00 |
| Other Civil Works | 0.31 | 0.02% | 0.21 |

| Particulars | FY07 (Petition) | Ratio (%) | FY07(True-Up) |
|---|---|---|---|
| Plant & Machinery | 431.42 | 33.59% | 292.79 |
| Line Cable Networks etc. | 553.80 | 43.12% | 375.85 |
| Lightening Arrestors | 6.40 | 0.50% | 4.35 |
| Air Conditioning Plants | 0.00 | 0.00% | 0.00 |
| Communication equipment | 0.32 | 0.03% | 0.22 |
| Meters | 178.71 | 13.92% | 121.29 |
| Vehicles | 5.06 | 0.39% | 3.44 |
| Furniture & fixtures | 2.15 | 0.17% | 1.46 |
| Office Equipments | 8.38 | 0.65% | 5.69 |
| Assets Purchased in second hand | 0.00 | 0.00% | 0.00 |
| Assets of Partnership projects etc. (included in above heads) | 0.00 | 0.00% | 0.00 |
| Assets taken over & pending final valuation | 0.00 | 0.00% | 0.00 |
| Computers | 22.30 | 1.74% | 15.14 |
| Motor and Pump | 6.38 | 0.50% | 4.33 |
| Fault Locating Equipment | 7.05 | 0.55% | 4.79 |
| Any other items | 7.66 | 0.60% | 5.20 |
| **Total** | **1284.31** | **100%** | **871.63** |

4.178 After determining the opening balance of GFA for the Control Period, the Commission has considered asset additions in each year based on the asset capitalisation approved by the Commission for the Control Period.

4.179 The summary of opening and closing GFA for the Control Period is given in the table below.

**Table 99: GFA Approved by the Commission (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening Balance of GFA | 871.63 | 1189.16 | 1539.16 | 1789.16 |
| Asset Additions (Capitalized) | 317.53 | 350.00 | 250.00 | 225.00 |
| Reduction | 0.00 | 0.00 | 0.00 | 0.00 |
| **Closing Balance of GFA** | **1189.16** | **1539.16** | **1789.16** | **2014.16** |

4.180 The Commission has considered asset addition of Rs 1142.53 Cr during the Control Period, against the proposed addition of Rs 1244.01 Cr For purpose of simplicity, the Commission has considered all the differences between proposed and approved values of asset addition to be adjusted in all the assets in the proportion of asset addition proposed by the Petitioner for the respective year of the Control Period.

4.181 Based on the average of opening and closing value of assets approved during the Control Period and the rates of depreciation, specified in the MYT Regulations, 2007 the Commission has approved the depreciation for the Control Period. Also, while approving the depreciation for the Control Period the Commission has not included the AAD approved for the respective years. The summary of depreciation approved by the Commission is mentioned in the table below.

**Table 100: Approved Depreciation for the Control Period (Rs Cr,)**

| Asset Category | Rate | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Land & Land Rights | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 |
| Offices & Showrooms | 1.80% | 0.69 | 0.73 | 0.74 | 0.74 |
| Temporary Structure | 18.00% | 0.07 | 0.07 | 0.07 | 0.07 |
| Other Civil Works | 1.80% | 0.00 | 0.00 | 0.00 | 0.00 |
| Transformers | 3.60% | 6.51 | 8.61 | 10.91 | 12.85 |
| Batteries | 18.00% | 1.17 | 1.21 | 1.25 | 1.30 |
| Switchgears, Control gear & Protection | 3.60% | 5.98 | 8.19 | 9.64 | 10.79 |
| Overhead lines upto 11kV | 3.60% | 6.19 | 9.33 | 11.90 | 13.61 |
| Underground cables upto 11kV | 2.57% | 7.28 | 9.47 | 11.65 | 13.47 |
| Lightening Arrestors | 3.60% | 0.16 | 0.16 | 0.17 | 0.17 |
| Communication equipment | 6.00% | 0.20 | 0.65 | 1.10 | 1.47 |
| Meters | 6.00% | 8.07 | 9.87 | 11.60 | 13.04 |
| Vehicles | 18.00% | 0.63 | 0.66 | 0.75 | 0.96 |
| Furniture & fixtures | 6.00% | 0.10 | 0.15 | 0.19 | 0.24 |
| Office Equipments | 6.00% | 0.36 | 0.40 | 0.45 | 0.49 |
| Computers | 6.00% | 0.91 | 0.91 | 0.91 | 0.91 |
| Motor and Pump | 18.00% | 0.26 | 0.26 | 0.26 | 0.26 |
| Fault Locating Equipment | 3.60% | 0.86 | 0.86 | 0.86 | 0.86 |
| Any other items | 0.00% | 0.19 | 0.19 | 0.20 | 0.20 |
| **Total Depreciation*** | | **39.63** | **51.72** | **62.65** | **71.43** |

** Excluding AAD*

<u>*Allocation into Wheeling and Retail Supply*</u>

4.182 For the purpose of allocating the GFA and Depreciation approved above, the Commission has considered the allocation statement submitted by the Petitioner (Table 96).

4.183 The Summary of the GFA and Depreciation expenses approved by the Commission for Wheeling and Retail Supply business is shown below.

**Table 101: Approved Allocation of GFA & Depreciation Expenses (Rs. Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Total GFA (Opening) | 871.63 | 1189.16 | 1539.16 | 1789.16 |
| GFA – Wheeling | 724.16 | 1010.34 | 1321.66 | 1543.34 |
| GFA - Retail Supply | 147.47 | 178.82 | 217.50 | 245.82 |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Depreciation – Wheeling* | 30.27 | 40.28 | 49.19 | 56.23 |
| Depreciation – Retail Supply* | 9.36 | 11.44 | 13.46 | 15.20 |

* *Excluding AAD*

*Truing up of Depreciation for the Control Period*

4.184 As per the MYT Regulations, 2007 clause 4.16 (b) (ii), Depreciation shall be trued up at the end of the Control Period.

## Accumulated Depreciation

### Petitioner's Submission

4.185 The Petitioner has submitted the schedule of accumulated depreciation (inclusive of AAD) for the Control Period, as shown in the table below.

**Table 102: Accumulated Depreciation as submitted by BYPL (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening Balance | 252.92 | 347.15 | 426.94 | 553.80 |
| Depreciation for the year | 94.23 | 79.79 | 126.86 | 141.93 |
| **Closing Balance** | **347.15** | **426.94** | **553.80** | **695.73** |

4.186 The Petitioner, subsequently, during the analysis of the Petition has submitted the revised values for the accumulated depreciation for the Control Period vide letter dated 26 December 2007. The summary of revised values of accumulated depreciation (inclusive of AAD) proposed by the Petitioner is provided in the table below.

**Table 103: Revised Accumulated Depreciation as submitted by BYPL (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening Balance | 290.17 | 384.40 | 464.19 | 591.30 |
| Depreciation for the year | 94.23 | 79.79 | 127.11 | 142.32 |
| **Closing Balance** | **384.40** | **464.19** | **591.30** | **733.62** |

### Commission's Analysis

4.187 For calculating the accumulated depreciation for the Control Period, the Commission has considered the accumulated depreciation at the end of FY07, which includes the depreciation of Rs. 70 Cr, contained in the opening balance sheet of the Petitioner according to the Transfer Scheme.

4.188 The accumulated depreciation based on depreciation values approved by the Commission for the Control Period is as shown below.

**Table 104: Approved Accumulated Depreciation (Rs Cr)**

| Scheme | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Opening Balance | 236.41 | 276.04 | 327.76 | 390.41 |
| Depreciation for the Year | 39.63 | 51.72 | 62.65 | 71.43 |
| **Accumulated Depreciation** | **276.04** | **327.76** | **390.41** | **461.85** |

*Allocation into Wheeling and Retail Supply*

4.189 For the purpose of allocating the value of Accumulated Depreciation approved above, the Commission has considered the allocation statement for GFA as submitted by the Petitioner (Table 96).

4.190 The Summary of the GFA and Depreciation expenses approved by the Commission for Wheeling and Retail Supply business is shown below.

**Table 105: Allocation of Accumulated Depreciation (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| **Wheeling** | | | | |
| Opening Balance | 196.41 | 226.68 | 266.97 | 316.16 |
| Depreciation for the Year | 30.27 | 40.28 | 49.19 | 56.23 |
| Closing Balance | 226.68 | 266.97 | 316.16 | 372.39 |
| **Retail Supply** | | | | |
| Opening Balance | 40.00 | 49.36 | 60.79 | 74.26 |
| Depreciation for the Year | 9.36 | 11.44 | 13.46 | 15.20 |
| Closing Balance | 49.36 | 60.79 | 74.26 | 89.46 |

## Advance Against Depreciation

### Petitioner's Submission

4.191 The Petitioner has requested the Commission to provide for advance against depreciation (AAD) during the Control Period, by considering the actual debt repayment and the depreciation recovered during the year. The Petitioner has already included the AAD proposed for each year of the Control Period in the Depreciation expenses claimed for the respective years, as mentioned above.

4.192 The summary of AAD proposed by the Petitioner is detailed in the table below.

**Table 106: AAD submitted by the Petitioner (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| 1/10th of the Loan(s) | 94.23 | 109.66 | 126.86 | 144.97 |
| Repayment of the Loan(s) as considered for working out Interest on Loan | 128.21 | 79.79 | 127.87 | 141.93 |
| Minimum of the Above | 94.23 | 79.79 | 126.86 | 141.93 |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Less: Depreciation during the year | 57.90 | 71.32 | 81.63 | 90.91 |
| **A** | **36.34** | **8.46** | **45.23** | **51.02** |
| | | | | |
| Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan | 264.65 | 344.44 | 472.31 | 614.24 |
| Less: Cumulative Depreciation | 147.90 | 219.22 | 300.85 | 391.75 |
| **B** | **116.75** | **125.22** | **171.46** | **222.49** |
| **AAD = min (A, B)/ zero if negative** | **36.34** | **8.46** | **45.23** | **51.02** |

### Commission's Analysis

4.193 The Commission has calculated the advance against depreciation for each year of the Control Period, using the principles specified in the MYT Regulations, 2007 and considering the details of actual cumulative debt repayment and accumulated depreciation claimed by the Petitioner.

4.194 While calculating the AAD for the Control Period the Commission has considered the value of accumulated depreciation as net of the depreciation used for capital investment and working capital in the previous years i.e. Rs. 149.17 Cr, as discussed in truing up section (utilisation of depreciation).

4.195 The Commission has concluded that no requirement for AAD shall occur during the Control Period, as shown below.

**Table 107: AAD approved by Commission (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| 1/10th of the Loan(s) | 92.03 | 101.48 | 101.13 | 114.36 |
| Repayment of the Loan(s) as considered for working out Interest on Loan | 126.63 | 87.31 | 103.39 | 143.05 |
| Minimum of the Above | 92.03 | 87.31 | 101.13 | 114.36 |
| Less: Depreciation during the year | 39.63 | 51.72 | 62.65 | 71.43 |
| **A** | 52.40 | 35.59 | 38.48 | 42.93 |
| | | | | |
| Cumulative Repayment of the Loan(s) as considered for working out Interest on Loan | 143.87 | 231.18 | 334.57 | 477.62 |
| Cumulative Depreciation | 276.04 | 327.76 | 390.41 | 461.85 |
| Depreciation Considered for Capex & WC in Previous years | 149.17 | 149.17 | 149.17 | 149.17 |
| Less: Cumulative Depreciation Considered for AAD | 126.87 | 178.59 | 241.25 | 312.68 |
| **B** | 17.00 | 52.59 | 93.33 | 164.94 |
| **AAD = min (A, B)/ zero if negative** | **17.00** | **35.59** | **38.48** | **42.93** |

*Allocation into Wheeling and Retail Supply*

4.196 Since the segregation of the loans approved by the Commission is difficult and complex, the Commission is of the view that the entire AAD should be allocated to the Wheeling business. Thus, entire AAD as approved above by the Commission has been considered towards Wheeling business.

*Truing up of AAD for the Control Period*

4.197 The Commission is of the opinion that AAD determined above is dependent on the loans and depreciation approved by the Commission and since both these parameters are subject to true-up at the end of the Control Period, the Commission would true-up the AAD as well at the end of the Control Period.

## Return on Capital Employed

4.198 The Return on Capital Employed (RoCE) for the Petitioner shall be determined as specified in the MYT Regulations, 2007. The RoCE can be determined only after determination of the Regulated Rate Base (RRB) for any particular year, and the Weighted Average Cost of Capital (WACC) for the year.

### Regulated Rate Base

#### Petitioner's Submission

4.199 The Petitioner has estimated its Regulated Rate Base (RRB) for each year of the Control Period based on the formula specified in the MYT Regulations, 2007. However, the Petitioner has made the following assumptions while determining the RRB for the Control Period.

(a) For calculating the RRB for the base year the Petitioner has considered the closing CWIP at the end of FY07. Further, while computing the RRB for the Control Period the Petitioner has considered the addition in RRB only from the assets capitalised out of fresh investments.

(b) The Petitioner has considered opening level of working capital of Rs. 41.68 Cr while determining the RRB for the base year.

(c) The Petitioner has also considered the amount of consumer contribution that would be available to fund the capital investment for the respective year.

**Table 108: Proposed RRB for the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| OCFA | 1284.31 | | | | |
| Closing Balance of CWIP in FY07 | 268.49 | | | | |
| Opening Balance of Working Capital | 41.68 | 173.54 | 203.47 | 223.22 | 243.55 |

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Opening Balance of Accumulated Depreciation | 252.92 | | | | |
| Opening balance of Accumulated Consumer Contribution ( in proportion of OCFA to total OCFA + CWIP + Stores) | 95.10 | | | | |
| Investments in capital expenditure during the year | | 225.35 | 248.31 | 263.45 | 238.41 |
| Depreciation for the year including AAD | | 92.51 | 78.55 | 125.67 | 140.74 |
| Consumer Contribution, Grants, etc for the year | | 30.00 | 30.00 | 30.00 | 30.00 |
| Change in Working Capital | | 131.86 | 29.93 | 19.75 | 20.33 |
| **$RRB_{(i)}$** | **1246.46** | **1429.74** | **1580.97** | **1724.49** | **1832.55** |

4.200 The Petitioner has later revised the RRB estimates for the Control Period and has submitted the same to the Commission vide letter dated 26 December, 2007.

**Table 109: Revised RRB for the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| OCFA | 1284.31 | | | | |
| Closing Balance of CWIP in FY07 | 268.49 | | | | |
| Opening Balance of Working Capital | 41.68 | 173.56 | 203.44 | 223.22 | 243.57 |
| Opening Balance of Accumulated Depreciation | 290.17 | | | | |
| Opening balance of Accumulated Consumer Contribution ( in proportion of OCFA to total OCFA + CWIP + Stores) | 94.99 | | | | |
| Investments in capital expenditure during the year | | 225.35 | 248.31 | 263.45 | 238.41 |
| Depreciation for the year including AAD | | 92.88 | 78.55 | 125.92 | 141.13 |
| Consumer Contribution, Grants, etc for the year | | 30.00 | 30.00 | 30.00 | 30.00 |
| Change in Working Capital | | 131.88 | 29.88 | 19.77 | 20.35 |
| **$RRB_{(i)}$** | | **1392.43** | **1543.42** | **1686.84** | **1794.60** |

### Commission's Analysis

4.201 The Commission has analyzed the methodology and assumptions considered by the Petitioner for the determination of RRB for the Control Period.

4.202 The Commission has observed that the Petitioner has considered closing balance of CWIP for FY07 while calculating the OCFA for the base year. During the Policy Direction period (FY03 to FY07), the Commission has allowed 16% return on average equity/ free reserves and interest on loans approved for capital investment in the respective years. The addition in equity/ free reserves and loans in each year were determined on the basis of capital investment approved in the respective year. Thus, the return allowed during each year of the Policy Direction period was dependent on the capital investment approved during that year.

4.203 However, for the Control Period the return allowed to the Petitioner shall be as per the methodology specified in the MYT Regulation, 2007. As per Regulation, the return for the year shall be determined by multiplying the weighted average cost of capital employed to the average of "Net Fixed Asset" for each year. Thus, the return allowed each year is to the extent of assets capitalised (net of depreciation and consumer contribution) in the respective year and not on the capital investment for that year. The addition in equity/ free reserves and debt during each year of the Control Period is also to the extent of assets capitalised in that year.

4.204 As the closing value of CWIP in FY07 represents the capital works that are still in progress, the same cannot be considered as the part of the GFA before capitalisation. Thus the Commission has not considered the closing CWIP of FY07 for calculating the RRB for the base year.

4.205 The Commission has also observed that for the calculation of addition in Net fixed assets during each year of the Control Period (Δ AB in Table 108), the Petitioner has reduced the gross assets capitalised by depreciation and the amount of consumer contribution estimated to be received during that year. The Commission is of the view that the amount of consumer contribution received during a year relates to the capital investment in that year and not to the asset capitalised in the year. Thus the Commission has determined the amount of consumer contribution be reduced from the gross asset addition based on the submission made by the Petitioner and the asset capitalisation approved by the Commission. The summary of the same is given below.

**Table 110: Capitalised Consumer Contribution (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Investment Approved | 117.53 | 300.00 | 300.00 | 200.00 |
| Consumer Contribution | 30.00 | 30.00 | 30.00 | 30.00 |
| Asset Capitalisation from new investment FY08 onwards | 58.77 | 150.00 | 150.00 | 100.00 |
| Asset Capitalisation from old investment FY08 onwards | 0.00 | 0.00 | 3.93 | 125.00 |
| Cumulative Consumer Contribution Available | 30.00 | 45.00 | 60.00 | 74.00 |
| Consumer Contribution capitalised | 15.00 | 15.00 | 16.00 | 36.01 |
| Balance Consumer Contribution | 15.00 | 30.00 | 44.00 | 37.98 |

4.206 The summary of RRB approved by the Commission for the Control Period is provided in the table below.

**Table 111: Approved RRB for the Control Period (Rs Cr)**

| | Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|---|
| A | OCFA | 871.63 | | | | |
| B | Opening Balance of Working Capital | 41.79 | | | | |
| C | Accumulated Depreciation | 236.41 | | | | |
| D | Accumulated Consumer Contribution | 94.99 | | | | |

| | Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|---|
| E | RRB (opening) | | 582.02 | 950.39 | 1228.60 | 1375.37 |
| F = G-H-I-J | Δ AB | | 245.90 | 247.69 | 132.86 | 74.62 |
| G | Investments capitalized | | 317.53 | 350.00 | 250.00 | 225.00 |
| H | Depreciation | | 39.63 | 51.72 | 62.65 | 71.43 |
| I | AAD | | 17.00 | 35.59 | 38.48 | 42.93 |
| J | Consumer Contribution | | 15.00 | 15.00 | 16.00 | 36.01 |
| K | Change in WC | | 122.47 | 30.52 | 13.90 | 37.05 |
| L = E+F+K | RRB (Closing) | 582.02 | 950.39 | 1228.60 | 1375.37 | 1487.04 |
| **M = E+F/2+K** | **RRB(i)** | | **827.45** | **1104.76** | **1308.94** | **1449.72** |

*Allocation into Wheeling and Retail Supply*

4.207 The Petitioner has not submitted any allocation for RRB or RoCE into Wheeling and Retail Supply business. The Commission, thus, has allocated the RRB(i) approved for the Control Period considering the following:

(a) OCFA allocated as per GFA allocation submitted by the Petitioner (Table 96)

(b) Depreciation allocated as per GFA allocation submitted by the Petitioner (Table 96)

(c) Investment capitalised as per GFA allocation submitted by the Petitioner (Table 96)

(d) Consumer Contribution has been considered fully for Wheeling business

(e) Allocation of working capital is discussed in the subsequent section

4.208 The summary of RRB approved for Wheeling and Retail supply business is given below.

**Table 112: Allocation of RRB for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| RRB(i) – Wheeling | 588.63 | 824.37 | 1000.03 | 1095.97 |
| RRB(i) – Retail Supply | 238.82 | 280.39 | 308.90 | 353.75 |

## Working Capital Requirement

### Petitioner's Submission

4.209 The Petitioner has submitted the details of working capital requirement for each year of the Control Period and has considered the following components for calculating its working capital requirements:

(a) Receivables for two months towards tariffs & charges; and

(b) Operation and Maintenance expenses for one month;

(c) Less Power Purchase Expenses for one month

4.210 The working capital requirements of the Petitioner for each year of the Control Period, based on submissions made by it, are as provided in the table below.

**Table 113: Proposed Working Capital for the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| O&M Expenses | | 216.59 | 256.00 | 292.87 | 330.94 |
| R&M Expenses | | 41.88 | 54.66 | 64.62 | 73.22 |
| A&G Expenses | | 46.04 | 55.44 | 62.70 | 69.70 |
| Employee Expenses | | 128.67 | 145.89 | 165.55 | 188.02 |
| 1/12th of Total O&M Expenses | | 18.05 | 21.33 | 24.41 | 27.58 |
| | | | | | |
| Receivables | | | | | |
| Annual revenues from Tariffs and Charges | | 1539.82 | 1673.95 | 1822.25 | 2000.97 |
| Receivables equivalent to 2 months average billing | | 256.64 | 278.99 | 303.71 | 333.50 |
| | | | | | |
| Power Purchase expenses | | 1213.72 | 1162.26 | 1258.71 | 1410.31 |
| Less: 1/12th of power purchase expenses | | 101.14 | 96.86 | 104.89 | 117.53 |
| **Total Working Capital** | **41.68** | **173.54** | **203.47** | **223.22** | **243.55** |

### Commission's Analysis

4.211 Based on the approved O&M Expenses, expected receivables for Wheeling and Retail supply business and the expected Power purchase cost, the Commission approves the working capital requirement for the Control Period provided in the table below.

**Table 114: Approved Working Capital for the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| O&M Expenses | | 179.55 | 214.85 | 217.05 | 230.46 |
| 1/12th of Total O&M Expenses | | 14.96 | 17.90 | 18.09 | 19.20 |
| | | | | | |
| Receivables | | | | | |
| Annual revenues from Tariffs and Charges | | 1385.26 | 1645.86 | 1770.79 | 2068.95 |
| Receivables equivalent to 2 months average billing | | 230.88 | 274.31 | 295.13 | 344.82 |
| | | | | | |
| Power Purchase expenses | | 978.92 | 1169.18 | 1254.40 | 1419.58 |
| Less: 1/12th of power purchase expenses | | 81.58 | 97.43 | 104.53 | 118.30 |
| **Total Working Capital** | **41.79** | **164.26** | **194.78** | **208.69** | **245.73** |

*Allocation into Wheeling and Retail Supply*

4.212 The Petitioner has not submitted any allocation for working capital requirement for Wheeling and Retail Supply business.

4.213 The Commission, thus, has allocated the working capital requirement approved for the Control Period considering the following:

(a) Wheeling

(i) Receivables for two months towards Wheeling charges;

(ii) Operation and Maintenance expenses for one month as per allocation

(b) Retail Supply

(i) Receivables for two months towards Retail Supply tariffs;

(ii) Operation and Maintenance expenses for one month as per allocation,

(iii) Less Power Purchase Expenses for one month.

4.214 The Working capital for FY07 has been allocated in the ratio of working capital approved for FY08 for Wheeling and Retail Supply business. The summary of the same is provided below.

**Table 115: Allocation of Working Capital for the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| Working Capital Requirement – Wheeling | 11.17 | 43.91 | 57.48 | 63.92 | 70.05 |
| Working Capital Requirement – Retail Supply | 30.62 | 120.35 | 137.30 | 144.77 | 175.68 |

## Means of Finance

### Petitioner's Submission

4.215 The Petitioner while considering the funding arrangement for its Investment Plan has considered the methodology elaborated in MYT Regulations, 2007. The Petitioner has considered funding of assets capitalised in the normative debt: equity ratio of 70:30 after utilizing the Consumer Contribution for funding Capital Investments as per the provisions of MYT Regulations, 2007.

4.216 While determining the means of finance for the Control Period, the Petitioner has considered the asset capitalised out of new investments from FY08 onwards. The table below provides the Means of Finance proposed by the Petitioner for the Investment Plan envisaged during the Control Period under the MYT regime.

**Table 116: Capital Expenditure and Means of Finance (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Capitalisation out of fresh investment from FY08 onwards | 225.35 | 248.31 | 263.45 | 238.41 |
| **Means of Finance** | | | | |
| Consumer Contribution | 30.00 | 30.00 | 30.00 | 30.00 |
| Deprecation | - | - | - | - |
| Internal Accruals | 41.09 | 46.33 | 53.38 | 61.78 |
| Commercial Borrowing | 154.26 | 171.98 | 180.07 | 146.63 |
| Sundry Creditors | - | - | - | - |
| **Total** | **225.35** | **248.31** | **263.45** | **238.41** |

4.217 The Petitioner has also submitted that the Commercial Borrowings proposed above would have the repayment tenure for 10 years and an interest rate of 11.5%. In addition to the above the Petitioner has also proposed the funding for increase in working capital for each year of the Control Period. The summary of outstanding loans at the end of each year of the Control Period as submitted by the Petitioner is provided in the table below.

**Table 117: Outstanding Loans at the end of each year of the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| DPCL Loan refinanced from IDBI | 174.00 | 164.33 | 145.00 | 125.67 | 106.33 |
| Loans for Capital Investment | 768.34 | 804.07 | 915.59 | 988.13 | 1012.17 |
| Loans for Working Capital | 93.50 | 131.88 | 161.76 | 181.54 | 201.89 |
| **Total** | **1035.84** | **1100.28** | **1222.35** | **1295.34** | **1320.39** |

**Table 118: Equity/ Free Reserves at the end of each year of the Control Period (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| **Equity** | | | | | |
| Opening | 116.00 | 116.00 | 116.00 | 116.00 | 116.00 |
| Addition | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing | 116.00 | 116.00 | 116.00 | 116.00 | 116.00 |
| **Free Reserves** | | | | | |
| Opening | 91.23 | 127.27 | 168.36 | 214.69 | 268.07 |
| Addition | 36.04 | 41.09 | 46.33 | 53.38 | 61.78 |
| Closing | 127.27 | 168.36 | 214.69 | 268.07 | 329.85 |
| **Total** | **243.27** | **284.36** | **330.69** | **384.07** | **445.85** |

### Commission's Analysis

4.218 On analysis of loan details provided by the Petitioner, the Commission observed that the outstanding balance as submitted by the Petitioner for FY07 is different from the values approved by the Commission. The mismatch is due to the fact that the

Commission has approved loans in the past as a means of finance on the basis of approved capital investment only.

4.219 As already discussed above in the truing-up section, the Commission has recast the means of finance for all the years in Policy Direction period. Thus, the Commission has considered the outstanding balance of loans approved for FY07 (after truing up) as the opening balance for FY08.

4.220 For the purpose of projecting future funding requirement, the Commission has considered normative debt: equity ratio of 70:30 on the asset capitalised each year after utilizing the consumer contribution. Further, the Commission has noticed that the funding for assets capitalised out of closing CWIP for FY07 has already been provided. Thus to avoid any double counting the Commission has considered the asset capitalised out of new investments from FY08 onwards for determining the funding requirement. The summary of funding requirement for the Control Period based on the investment plan approved by the Commission is provided in the table below.

**Table 119: Approved Means of Finance for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Capitalisation out of fresh investment from FY08 onwards | 58.77 | 150.00 | 153.93 | 225.00 |
| **Means of Finance** | | | | |
| Consumer Contribution | 15.00 | 15.00 | 16.00 | 36.01 |
| Internal Accruals | 13.13 | 40.50 | 41.38 | 56.70 |
| Commercial Borrowing | 30.64 | 94.50 | 96.55 | 132.29 |
| **Total** | **58.77** | **150.00** | **153.93** | **225.00** |

4.221 For the purpose of determining the loan schedule for the Control Period the Commission has considered three types of loans with different repayment tenures and interest rates, mentioned below:

(a) DPCL loan refinance from IDBI: Repayment as per loan agreement submitted by the Petitioner i.e. 18 equal half yearly instalments and interest rate at 9.15%;

(b) New loans approved for capital investment;

(c) Loan for working capital.

4.222 For outstanding loans as on 1 April 2007, the Commission has considered the repayment schedule and interest rate as discussed in the truing up section above. For DPCL loan (refinanced through IDBI), repayment schedule and interest rate has been considered as per loan agreement submitted by the petitioner. The Commission has also analysed the terms & conditions of the loans taken by the Petitioner in FY07. The Commission has noticed that the Petitioner has managed to procure funds in the range of 1.75% to 4.75% below PLR. Thus, for the Control Period the Commission has considered that the Petitioner would be able to raise funds at 2.75% below SBI PLR (currently 12.25%). The details of new loans approved by the Commission for the Control Period are mentioned below.

**Table 120: Loan Details**

| Year | Type | Loan Details | | |
|---|---|---|---|---|
| | | Amount | Interest Rate | Repayment Details |
| FY08 | Capex* | 30.64 | 9.50% | Repayment in 10 yrs (equal annual instalments) |
| | WC# | 122.47 | 9.50% | Rolling Basis |
| FY09 | Capex | 94.50 | 9.50% | Repayment in 10 yrs (equal annual instalments) |
| | WC | 30.52 | 9.50% | Rolling Basis |
| FY10 | Capex | 96.55 | 9.50% | Repayment in 10 yrs (equal annual instalments) |
| | WC | 13.90 | 9.50% | Rolling Basis |
| FY11 | Capex | 132.29 | 9.50% | Repayment in 10 yrs (equal annual instalments) |
| | WC | 37.05 | 9.50% | Rolling Basis |

** Capital Expenditure*
*# Working Capital*

4.223 The summary of outstanding loans at the end of each year approved by the Commission is provided below.

**Table 121: Approved Loan Details (Outstanding) (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| **DPCL Loan Refinanced from IDBI** | | | | | |
| Opening Balance | 174.00 | 174.00 | 164.33 | 145.00 | 125.67 |
| Addition | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Repayment | 0.00 | 9.67 | 19.33 | 19.33 | 19.33 |
| Closing Balance | 174.00 | 164.33 | 145.00 | 125.67 | 106.33 |
| | | | | | |
| **Loans for Capital Investment** | | | | | |
| Opening Balance | 510.06 | 698.43 | 612.10 | 638.62 | 651.11 |
| Addition | 393.55 | 30.64 | 94.50 | 96.55 | 132.29 |
| Repayment | 205.18 | 116.96 | 67.98 | 84.06 | 123.72 |
| Closing Balance | 698.43 | 612.10 | 638.62 | 651.11 | 659.68 |
| | | | | | |
| **Working Capital Loan** | | | | | |
| Opening Balance | 0.00 | 0.00 | 122.47 | 152.99 | 166.90 |
| Addition | 0.00 | 122.47 | 30.52 | 13.90 | 37.05 |
| Repayment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing Balance | 0.00 | 122.47 | 152.99 | 166.90 | 203.94 |
| **Total** | **872.43** | **898.90** | **936.61** | **943.67** | **969.96** |

4.224 The Commission shall true-up the means of finance for the Control Period as the asset capitalisation is subjected to true-up. The Commission may true-up the interest rates considered for new loans to be taken for capital investment and for working capital requirement, if there is a deviation in the PLR of the scheduled commercial banks by more than 1% on either side.

4.225 For determining the closing values of equity and free reserves the Commission has considered the closing value for FY07 (after truing up) and approved addition in free reserves as mentioned in Table 119. The summary of addition in equity and free reserves approved by the Commission for the Control Period is given below.

**Table 122: Approved addition in Equity and Free Reserves (Rs Cr)**

| Particulars | FY07 | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|---|
| **Equity** | | | | | |
| Opening | 116.00 | 116.00 | 116.00 | 116.00 | 116.00 |
| Addition | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Closing | 116.00 | 116.00 | 116.00 | 116.00 | 116.00 |
| **Free Reserves** | | | | | |
| Opening | 91.39 | 127.46 | 140.59 | 181.09 | 222.47 |
| Addition | 36.07 | 13.13 | 40.50 | 41.38 | 56.70 |
| Closing | 127.46 | 140.59 | 181.09 | 222.47 | 279.16 |
| **Total** | **243.46** | **256.59** | **297.09** | **338.47** | **395.16** |

## Determination of WACC and RoCE

### Petitioner's Submission

4.226 The Petitioner has determined the weighted average cost of capital (WACC) for each year considering the proposed debt-equity ratio, cost of equity at 14% and weighted average cost of debt. The weighted average cost of debt has been calculated by dividing total interest cost by average debt for that year.

4.227 The Petitioner has calculated the return on capital employed considering the Regulated Rate Base (RRB) and the WACC for the respective years. The summary of the RoCE calculations, submitted by the Petitioner is provided in the table below.

**Table 123: Proposed RoCE for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| $RRB_i$ | 1429.74 | 1580.97 | 1724.49 | 1832.55 |
| Equity (Average) | 263.8 | 307.5 | 357.4 | 415.0 |
| Debt (Average) | 1021.3 | 1161.3 | 1258.8 | 1307.9 |
| Rate of Return on Equity | 14.00% | 14.00% | 14.00% | 14.00% |
| Rate of Return on Debt | 10.69% | 11.23% | 11.27% | 11.31% |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| WACC | 11.37% | 11.81% | 11.87% | 11.96% |
| **RoCE** | **162.54** | **186.73** | **204.72** | **219.18** |

4.228 The Petitioner, subsequently, during the analysis of the Petition has submitted the revised values for RoCE for the Control Period vide letter dated 26 December 2007. The summary of revised values of RoCE proposed by the Petitioner is provided in the table below.

**Table 124: Revised RoCE for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| $RRB_i$ | 1392.43 | 1543.42 | 1686.84 | 1794.60 |
| Equity (Average) | 263.24 | 305.69 | 354.04 | 409.80 |
| Debt (Average) | 1021.89 | 1163.15 | 1262.06 | 1312.58 |
| Rate of Return on Equity | 14.00% | 14.00% | 14.00% | 14.00% |
| Rate of Return on Debt | 10.69% | 11.2% | 11.27% | 11.31% |
| WACC | 11.37% | 11.81% | 11.87% | 11.95% |
| **RoCE** | **158.28** | **182.25** | **200.16** | **214.51** |

4.229 The Petitioner has allocated the proposed RoCE into Wheeling and Retail Supply Business in proportion of the percentage of GFA.

### Commission's Analysis

4.230 For determining the WACC, the Commission has followed the methodology specified in the MYT Regulations, 2007. Debt to equity ratio has been considered on the closing values of debt and equity (including free reserves) approved by the Commission for each year. The cost of equity has been considered at 14% and the cost of debt has been determined by dividing total interest cost (on approved loans) by average debt approved for that year.

4.231 Based on the RRB approved and the WACC calculated using the above methodology the Commission approves the RoCE for the Control Period given in table below.

**Table 125: Approved RoCE for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| $RRB_i$ | 827.45 | 1104.76 | 1308.94 | 1449.72 |
| Equity (Average) | 250.03 | 276.84 | 317.78 | 366.82 |
| Debt | 898.90 | 936.61 | 943.67 | 969.96 |
| Rate of Return on Equity | 14.00% | 14.00% | 14.00% | 14.00% |
| Rate of Return on Debt | 8.92% | 9.29% | 9.30% | 9.19% |
| WACC | 10.03% | 10.37% | 10.49% | 10.51% |
| **RoCE** | **82.98** | **114.54** | **137.25** | **152.42** |

*Allocation into Wheeling and Retail Supply*

4.232 The Petitioner, in addition to RoCE allocated to Wheeling and Retail Supply business has also proposed a Supply margin for the Retail Supply business at 5% of the Consumer Contribution.

4.233 The Commission feels that the Petitioner has misunderstood the methodology specified for calculating the RoCE and Supply margin for Wheeling and Retail Supply business respectively. As per Clause 5.38 of the MYT Regulations, 2007,

"*The Commission shall specify a retail supply margin for the Retail Supply Business in MYT order based on the Allocation statement provided by the Distribution Licensee. The Cost allocated to Retail Supply Business as per allocation statement shall be considered while determining supply margin.*"………

*"The Commission shall specify the retail supply margin in such a manner that the return from the Wheeling and Retail Supply business shall not exceed 16% of equity"*

4.234 The intention of the above provision of the MYT Regulation, 2007 is that the Wheeling business shall be allowed a RoCE to the extent of asset allocated to it and the Retail Supply business shall be allowed a supply margin that would cover all the expenses plus RoCE (that allocated to Retail Supply Business) plus an additional return such that the total return from the Wheeling and Retail Supply Business shall not exceed 16% of equity.

4.235 Thus the Commission has allocated the RoCE approved above into Wheeling and Retail Supply considering the following:

(a) RRB allocated to the respective business, as discussed in Table 112

(b) Debt and Equity in the proportion of allocation of total GFA into Wheeling and Retail supply for each year

4.236 The summary of RoCE approved for Wheeling and Retail supply business is given below.

**Table 126: Allocation of RoCE for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| RoCE – Wheeling | 59.03 | 85.47 | 104.86 | 115.22 |
| RoCE – Retail Supply | 23.95 | 29.07 | 32.39 | 37.19 |

*Truing up of RoCE for the Control Period*

4.237 Since all elements of RoCE are subject to true-up, the Commission shall also true-up the RoCE approved above at the end of the Control Period.

## Capitalisation of Expenses & Interest Charges

### Petitioner's Submission

4.238 The capitalisation of interest and other expenses as submitted by the Petitioner is given in the table below.

**Table 127: Proposed Capitalisation of Interest and Other Expenses (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Interest & Finance Charges Capitalised | 3.20 | 9.09 | 10.86 | 9.60 |
| Employee Expenses | 6.77 | 7.68 | 8.71 | 9.90 |
| A&G Expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total** | **9.97** | **16.77** | **19.58** | **19.49** |

### Commission's Analysis

4.239 The Commission has calculated the capitalisation of Interest & Financing charges by considering the capitalisation of Interest & Financing charges submitted by the Petitioner and proportionately allocating the same based on the capital expenditure submitted by the Petitioner and approved by the Commission for the Control Period.

4.240 For capitalizing the Employee and A&G Expenses for the Control Period, the Commission has considered the capitalisation of Employee and A&G Expenses submitted by the Petitioner and has adjusted the same by first considering the ratio of approved asset capitalisation and asset capitalisation proposed by the Petitioner and then by approved Employee/ A&G Expenses and that proposed by the Petitioner.

4.241 The summary of the Employee Expenses and Interest Charges capitalised by the Commission is provided in the table given below.

**Table 128: Approved Expense Capitalisation (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Interest & Finance Charges Capitalised | 2.31 | 10.54 | 10.31 | 9.06 |
| Employee expenses Capitalised | 4.23 | 8.27 | 6.23 | 6.38 |
| A&G Expenses Capitalised | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Capitalisation** | **6.54** | **18.80** | **16.54** | **15.43** |

## Tax Expenses

### Petitioner's Submission

4.242 The Petitioner has submitted the details about taxes on income and provision kept for FBT (Fringe Benefit Tax) for the Control Period. The summary of taxes submitted by the Petitioner is given in the table below.

**Table 129: Proposed Tax Expenses for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Provision for FBT | 1.30 | 1.48 | 1.68 | 1.90 |
| Income Tax | 5.67 | 6.50 | 7.56 | 8.78 |
| **Total** | **6.97** | **7.98** | **9.24** | **10.69** |

### Commission's Analysis

4.243 The Commission is of the opinion that projecting the actual tax liability for the Control Period is difficult and complex. Thus for simplicity, the Commission provisionally approves Rs. 2 Cr each year towards income tax and fringe benefit expenses. The Commission would, however, true-up the Tax expenses based on the actual tax liability at the end of each year of the Control Period. The Commission has allocated the Tax expenses into Wheeling and Retail Supply in the ratio of 20:80 respectively.

## Non Tariff Income

### Petitioner's Submission

4.244 The Petitioner has submitted the details of Non Tariff Income (NTI) for the Control Period. The Non-Tariff Income of BYPL has been estimated at Rs. 41.53 Cr, Rs. 44.09 Cr, Rs. 46.81 Cr and Rs. 49.76 Cr in FY08, FY09, FY10 and FY11 respectively by the Petitioner, as depicted in table below.

**Table 130: Proposed Non-Tariff Income for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Interest Income from Investments other than Contingency Reserve | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on fixed deposits including interest on consumer security deposit | 0.02 | 0.02 | 0.02 | 0.02 |
| Interest from Banks other than Fixed Deposits | 0.05 | 0.06 | 0.06 | 0.06 |
| Interest on Govt. of India Securities - Non Trade Investment/ Others | 0.83 | 0.87 | 0.92 | 0.96 |
| Interest on loans and Advances to staff | 7.30 | 8.09 | 8.94 | 9.88 |
| Misc. charges from consumers | 16.19 | 16.99 | 17.84 | 18.74 |
| Commission on collection of Electricity Duty for MCD | 1.97 | 2.14 | 2.35 | 2.59 |
| Write back of miscellaneous provisions | 0.00 | 0.00 | 0.00 | 0.00 |
| Penalties from Contractors | 0.05 | 0.05 | 0.06 | 0.06 |
| Sale of Scrap | 14.50 | 15.23 | 15.99 | 16.79 |
| Sale of Material | 0.18 | 0.19 | 0.20 | 0.21 |
| Miscellaneous income | 0.44 | 0.44 | 0.44 | 0.44 |
| **Total** | **41.53** | **44.09** | **46.81** | **49.76** |

4.245 The allocation statement proposed by the Petitioner is given in the table below:

**Table 131: Statement of Allocation of NTI Expenses between Wheeling & Retail Supply Business**

| Particulars | Wheeling | Retail Supply |
|---|---|---|
| Interest Income from Investments other than Contingency Reserve | 50% | 50% |
| Interest on fixed deposits including interest on consumer security deposit | 20% | 80% |
| Interest from Banks other than Fixed Deposits | 50% | 50% |
| Interest on Govt. of India Securities - Non Trade Investment/ Others | 50% | 50% |
| Interest on loans and Advances to staff | 64% | 36% |
| Misc. charges from consumers | 0% | 100% |
| Commission on collection of Electricity Duty for MCD | 0% | 100% |
| Write back of miscellaneous provisions | 0% | 100% |
| Penalties from Contractors | 0% | 100% |
| Sale of Scrap | 0% | 100% |
| Sale of Material | 0% | 100% |
| Miscellaneous income | 100% | 0% |

4.246 The table below summarises the allocated NTI submitted by the Petitioner for the Control Period:

**Table 132: Proposed Allocation of NTI for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| NTI – Wheeling | 5.56 | 6.09 | 6.65 | 7.28 |
| NTI – Retail Supply | 35.98 | 38.00 | 40.16 | 42.48 |

### Commission's Analysis

4.247 The Commission has analysed the submission made by the Petitioner in detail. During the analysis, it was noticed that the NTI projected by the Petitioner for the Control Period is significantly lower than the NTI submitted by the Petitioner for FY07 i.e. Rs. 57.24 Cr. The Commission has, thereby, directed the Petitioner to clarify the same. The Petitioner in its reply to the Commission vide letter no. RCM/07-08/1042 dated 7 February, 2008 submitted that the during FY06 and FY07, the Non-Tariff Income included certain income towards recovery of Liquidated Damages from contractors which was a one time income and has not been considered while projecting non tariff income for future years. The Petitioner has also submitted that due to complexity in projecting the rebate on bulk supply for future years, the same has not been considered and that the Commission may true up the same based on actuals.

4.248 Taking the above in to consideration, the Commission has approved the NTI as proposed by the Petitioner.

**Table 133: Approved Non-Tariff Income for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Interest Income from Investments other than Contingency Reserve | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on fixed deposits including interest on consumer security deposit | 0.02 | 0.02 | 0.02 | 0.02 |
| Interest from Banks other than Fixed Deposits | 0.05 | 0.06 | 0.06 | 0.06 |
| Interest on Govt. of India Securities – Non Trade Investment/ Others | 0.83 | 0.87 | 0.92 | 0.96 |
| Interest on loans and Advances to staff | 7.30 | 8.09 | 8.94 | 9.88 |
| Misc. charges from consumers | 16.19 | 16.99 | 17.84 | 18.74 |
| Commission on collection of Electricity Duty for MCD | 1.97 | 2.14 | 2.35 | 2.59 |
| Write back of miscellaneous provisions | 0.00 | 0.00 | 0.00 | 0.00 |
| Penalties from Contractors | 0.05 | 0.05 | 0.06 | 0.06 |
| Sale of Scrap | 14.50 | 15.23 | 15.99 | 16.79 |
| Sale of Material | 0.18 | 0.19 | 0.20 | 0.21 |
| Miscellaneous income | 0.44 | 0.44 | 0.44 | 0.44 |
| **Total** | **41.53** | **44.09** | **46.81** | **49.76** |

*Allocation into Wheeling and Retail Supply*

4.249 The Commission has considered the allocation statement submitted by the Petitioner to allocate the NTI into Wheeling and Retail Supply business and approved the same. The summary of the same is provided in the table below:

**Table 134: Approved Allocation of NTI for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| NTI – Wheeling | 5.56 | 6.09 | 6.65 | 7.28 |
| NTI – Retail Supply | 35.98 | 38.00 | 40.16 | 42.48 |

*Truing up of NTI for the Control Period*

4.250 The Commission shall true-up the NTI based on the actual values at the end of the Control Period.

## Other Miscellaneous Expenses

### Petitioner's Submission

4.251 The Petitioner has also proposed the following expenses to be considered as a part of the ARR for the Control Period.

(a) DVB Arrears

(b) Interest on Consumer Deposits, and

(c) Estimated liabilities under section 8(3) of Transfer Scheme

4.252 The Petitioner has proposed the expense of Rs. 45.00 Cr, Rs. 20.00 Cr, Rs. 11.50 Cr and Rs. 7.00 Cr in FY08, FY09, FY10 and FY11 respectively on account of DVB arrears collected by the Petitioner and passed on to the Holding Company (M/s DPCL).

4.253 The Petitioner has submitted that as per the provisions of the Electricity Act 2003, the Petitioner has to pay interest to the consumers on the security deposit held with itself. The Petitioner has also submitted that the bulk of the security deposits are held by DPCL and that the Petitioner is responsible for paying interest on security deposits held by it. The Petitioner has however, provisioned for the interest on such deposit payable to consumers @ 6% per annum considering that the consumer security deposits held by DPCL may be transferred to each of the DISCOMs. Considering the same the Petitioner has proposed as amount of Rs. 7.27 Cr, Rs. 8.07 Cr, Rs. 8.91 Cr and Rs. 9.86 Cr in FY08, FY09, FY10 and FY11 respectively.

4.254 The Petitioner has submitted that, as per Rule 8(3) of Transfer Scheme – "*any liability of erstwhile Board arising out of litigation, suits, claims, etc pending on the date of transfer and or arising due to events prior to the date of the transfer shall be borne by the Petitioner, subject to a maximum of Rs. 1 crore per annum. Any amount more than Rs. 1 crore shall be to the account of the Holding Company i.e. M/s DPCL in the event for any reason the Commission does not allow the amount to be included on the Revenue Requirement of the Petitioner*". Considering the same the Petitioner has proposed as amount of Rs. 2 Cr, Rs. 2 Cr, Rs. 2 Cr and Rs. 2 Cr in FY08, FY09, FY10 and FY11 respectively.

**Commission's Analysis**

4.255 While approving the collection efficiency and projecting the revenue for the Control Period, the Commission has assumed that the collection on account of DVB arrears and thus the liability on account of collection of DVB arrears as zero (similar to the approach followed by the Commission in the previous Tariff Orders). The Commission has taken a consistent stand with regard to the issue of treatment of DVB arrears in its previous Tariff Orders. It has been repeatedly stated by the Commission that in case the DVB arrears are passed on to the Holding Company, then the treatment of over achievement of the efficiency targets, as provided under the Policy Direction, will not be implementable. Therefore, it was considered that the receipts on account of DVB arrears should remain within the sector to reduce the overall revenue gap. The issue pertaining to the treatment of DVB arrears is presently before the ATE and is sub-judice.

4.256 The Commission has framed the Regulations, i.e. DERC (Terms and Conditions of Determination of Wheeling Supply Tariff and Retail Supply Tariff) Regulations, 2007 to regulate the past arrears.

4.257 The Commission recognises the liability to consumers on the Petitioner on account of interest (rate @ 6%) on consumer security deposits. However, the Commission is of the opinion that the Petitioner would earn more than 6% interest each year on the consumer security deposits lying with it considering the cuurent interest rate regime. Thus, the Commission would consider only the net income from the consumer security deposits (interest earned less interest paid) and not the net expense arising out of the same. The Commission has, however, also observed that the matter of transfer of consumer security deposits from the Holding Company to the DISCOMs is still a disputed matter. Thus, the Commission currently, has not considered any income or expense on account of the interest on consumer security deposits.

4.258 In the matter of liabilities arising under Section 8(3) of the Transfer Scheme, the Commission would like to reiterate the Petitioner's submission that – "*any liability of erstwhile Board arising out of litigation, suits, claims, etc pending on the date of transfer and or arising due to events prior to the date of the transfer shall be borne by the Petitioner, **subject to a maximum of Rs. 1 crore per annum.** Any amount more than Rs. 1 crore shall be to the account of the Holding Company i.e. M/s DPCL in the event for any reason the Commission does not allow the amount to be included on the Revenue Requirement of the Petitioner*". The Commission is of the view that projecting any liabilities arising from Section 8(3) of the Transfer Scheme at this stage is difficult and also that the liability if any, would be subjected to a maximum of Rs. 1 Cr for each year. Thus, the Commission has not considered any liabilities under Section 8(3) of the Transfer Scheme in the ARR. The Commission, however, would like to clarify that it would true-up the same as and when the actual liability arises subjected to a maximum of Rs. 1 Cr.

## Supply Margin

### Petitioner's Submission

4.259 The Petitioner has proposed a supply margin for the Retail Supply business as 5% of consumer contribution each year. The summary of supply margin proposed by the Petitioner is mentioned below:

**Table 135: Proposed Supply Margin for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Supply Margin | 4.79 | 6.29 | 7.79 | 9.29 |

### Commission's Analysis

4.260 As per the MYT Regulations 2007, the supply margin to be allowed for the Retail Supply business shall cover all the expenses of the retail supply business (except

Power Purchase & Transmission cost), RoCE allocated to retail supply business and shall also provide an additional return such that the total return from the Wheeling and Retail business shall not exceed 16% of equity.

**Table 136: Approved Supply Margin (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Operation & Maintenance Costs | 78.29 | 89.96 | 86.00 | 88.48 |
| Depreciation | 9.36 | 11.44 | 13.46 | 15.20 |
| Advance Against Depreciation | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on Capital Employed | 23.95 | 29.07 | 32.39 | 37.19 |
| Less: Interest capitalised | 0.35 | 1.49 | 1.42 | 1.23 |
| Less: Non Tariff Income | 35.98 | 38.00 | 40.16 | 42.48 |
| Income Tax Provision | 1.60 | 1.60 | 1.60 | 1.60 |
| Other Expenditure | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total (A)** | **76.88** | **92.58** | **91.87** | **98.76** |
| Additional Return allowed | 3.60 | 5.04 | 6.59 | 7.96 |
| **Total Supply Margin** | **80.48** | **97.62** | **98.47** | **106.72** |

4.261 RoCE approved for the Control Period assuming return on equity @14% (Table 125) and the revised RoCE calculated by considering 16% return on equity is given below.

**Table 137: Additional Return allowed (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| RoCE approved at 14% ROE | 82.98 | 114.54 | 137.25 | 152.42 |
| **Revised RoCE** | | | | |
| $RRB_i$ | 827.45 | 1104.76 | 1308.94 | 1449.72 |
| Equity | 250.03 | 276.84 | 317.78 | 366.82 |
| Debt | 898.90 | 936.61 | 943.67 | 969.96 |
| Rate of Return on Equity | 16.00% | 16.00% | 16.00% | 16.00% |
| Rate of Return on Debt | 8.92% | 9.29% | 9.30% | 9.19% |
| WACC | 10.46% | 10.82% | 10.99% | 11.06% |
| Revised RoCE | 86.58 | 119.58 | 143.85 | 160.37 |
| **Additional Return allowed** | **3.60** | **5.04** | **6.59** | **7.96** |

4.262 The Commission has designed Supply Margin in such manner that there is an incentive for the Petitioner to sell power to the consumers and not resort to load shedding and that the Petitioner is also able to recover its expenses and return apportioned to Retail Supply Business.

4.263 The Commission has linked Supply Margin with energy sales to the consumers by allowing a per unit rate for Supply Margin. The Commission approves the following rates for the Supply Margin for the Control Period.

**Table 138: Supply Margin Charge (Paise/ Unit)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Total Supply Margin (Rs Cr) | 80.48 | 97.62 | 98.47 | 106.72 |
| Approved Sales (MU) | 3257.24 | 3516.09 | 3818.34 | 4389.19 |
| **Supply Margin Charge** | 24.7 | 27.8 | 25.8 | 24.3 |

4.264 The Commission, here, would like to highlight that in case the energy sales to the consumers is more than the sales approved by the Commission for BYPL in any year, the revenue earned through Supply Margin charge on these additional sales shall increase the return allowed to the Petitioner over 16% which would be against the MYT Regulations, 2007. Thus, this additional revenue, if any, would be adjusted against the ARR during true-up.

4.265 In any year, if energy sale is lower than the approved sales, the Petitioner will bear the losses on account of lower revenue from Supply Margin. The Commission is of the view that this will be a disincentive for the Petitioner to resort to load shedding,

4.266 The Commission is also of the view that the Petitioner would be able to achieve the level of energy sales approved by the Commission in the respective years (considering that the Petitioner estimates for energy sales are much higher than that approved). The year-wise energy sales for the Control Period proposed by the Petitioner and approved by the Commission is summarised below:

**Table 139: Approved Revenue from Supply Margin Charge**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Proposed Sales (MU) | 3439.43 | 3741.91 | 4079.71 | 4509.91 |
| **Approved Sales (MU)** | **3257.24** | **3516.09** | **3818.34** | **4389.19** |

## Contingency Reserve

4.267 The Commission in its Tariff Order for FY06 has mentioned that – *"The Commission would like to bring to the notice of the Petitioner that the creation of contingency reserve was mandated in the Sixth Schedule to the Electricity (Supply) Act, 1948 as was in force before the repeal of the said Act by the EA 2003. The EA 2003, however, does not provide for the creation of contingency reserve. Therefore, in accordance with the EA 2003, the Commission does not feel the necessity to provide this reserve. The Commission is not approving any expenses with respect to contingency reserve for FY 2005-06."*

4.268 The Commission also mentioned that it shall decide on the treatment of contingency reserve created in past and shall communicate the same to the Petitioner.

4.269 As per the provisions of MYT Regulations, 2007 contingency reserve is maintained for tariff stability and passing the benefits achieved to the consumers under MYT framework

4.270 The Regulation also specifies that – *"The Licensee shall create a Contingency Reserve at the beginning of the Control Period. The revenue surplus, if any, generated by individual Licensees in and up to FY 2006-07 shall be transferred to their respective Contingency Reserves at the beginning of the Control Period."*

*"The Licensees shall maintain separate accounts in their books and reflect the balance in the Contingency Reserve Account in the balance sheet. There shall be yearly additions and drawls to/from these Contingency Reserve accounts based on the annual review and performance of the Licensees"*

*"Funds under Contingency Reserve shall be kept in a separate bank account and shall be effectively invested and managed to earn returns based on market conditions ensuring adequate liquidity. This fund shall not be utilized for speculative purposes. The use of these funds in any other manner shall be only with the prior approval of the Commission."*

4.271 Thus, considering the above the Commission directs the Petitioner to transfer the amount allowed as contribution to contingency reserve in the past i.e. Rs. 5.91 Cr (Rs. 1.76 Cr in FY03, Rs. 1.84 Cr in FY04 and Rs. 2.31 Cr in FY05) to MYT contingency reserve. The Commission further directs the Petitioner to maintain separate accounts in its books and reflect the balance in the MYT Contingency Reserve Account in the balance sheet. The Petitioner shall use the amount for investing in safe securities and earning returns based on market conditions, however, the Petitioner is refrained from using the money for speculative purposes.

4.272 The Commission directs the Petitioner to transfer the refunds received from DTL, IP Station, Rajghat Power House, GTPS and PPCL as specified in the MYT Order of the respective companies/ Licensee to the MYT contingency reserve.

## Aggregate Revenue Requirement

### Petitioner's Submission

4.273 The table given below provides a summary of the Aggregate Revenue Requirement (ARR) as proposed by the Petitioner for the Control Period.

**Table 140: Proposed ARR for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Cost of power purchase, including T&D losses | 1213.72 | 1162.26 | 1258.71 | 1410.31 |
| Inter-State Transmission charges | 58.68 | 61.33 | 68.24 | 81.36 |
| Intra-state Transmission charges | 58.95 | 61.89 | 64.99 | 68.24 |
| Wheeling charges payable to other distribution licensee | 0.18 | 0.17 | 0.17 | 0.18 |
| SLDC fees and charges | 0.00 | 0.00 | 0.00 | 0.00 |
| O&M Expenses | 251.59 | 291.00 | 327.87 | 393.42 |
| Depreciation | 94.23 | 79.79 | 126.86 | 141.93 |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Any Other Expenses | 54.27 | 30.07 | 22.41 | 18.86 |
| Return on Capital Employed | 162.54 | 186.73 | 204.72 | 219.18 |
| Income Tax | 6.97 | 7.98 | 9.24 | 10.69 |
| Supply Margin | 4.79 | 6.29 | 7.79 | 9.29 |
| Truing up of Expenses of previous years | 164.63 | 151.57 | 0.00 | 0.00 |
| Less: Other Income (Including income from wheeling charges) | 43.71 | 46.19 | 48.96 | 51.92 |
| **Aggregate Revenue Requirement** | **2026.84** | **1992.89** | **2042.04** | **2301.53** |

4.274 The Petitioner, subsequently, during the analysis of the Petition has submitted the revised values of ARR for the Control Period vide letter dated 26 December 2007. The summary of revised values of ARR proposed by the Petitioner is provided in the table below.

**Table 141: Revised ARR for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Cost of power purchase, including T&D losses | 1213.72 | 1162.26 | 1258.71 | 1410.31 |
| Inter-State Transmission charges | 58.68 | 61.33 | 68.24 | 81.36 |
| Intra-state Transmission charges | 58.95 | 61.89 | 64.99 | 68.24 |
| Wheeling charges payable to other distribution licensee | 0.18 | 0.17 | 0.17 | 0.18 |
| SLDC fees and charges | | | | |
| O&M Expenses | 251.59 | 291.00 | 327.87 | 393.42 |
| Depreciation | 94.23 | 79.79 | 127.11 | 142.32 |
| Any Other Expense | 54.27 | 30.07 | 22.41 | 18.86 |
| Return on Capital Employed | 158.28 | 182.25 | 200.16 | 214.51 |
| Income Tax | 6.83 | 7.81 | 9.03 | 10.44 |
| Supply Margin | 4.79 | 6.29 | 7.79 | 9.29 |
| Truing up of Expenses of previous years | 189.59 | 174.55 | 0.00 | 0.00 |
| Less: Other Income (Including income from wheeling charges) | 43.71 | 46.19 | 48.94 | 51.94 |
| **Aggregate Revenue Requirement** | **2047.39** | **2011.23** | **2037.55** | **2296.98** |

4.275 The Petitioner, in the MYT petition has also submitted the ARR for Wheeling and Retail Supply business. The summary of the same is given below.

**Table 142: ARR for Wheeling Business for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| O&M Expenses | 143.83 | 168.79 | 191.38 | 228.15 |
| Depreciation | 71.92 | 61.91 | 99.05 | 111.12 |
| Return on Capital Employed | 135.04 | 158.50 | 175.01 | 188.17 |
| Income Tax | 5.79 | 6.63 | 7.67 | 8.88 |
| Any Other Expense | | | | |
| Less: Other Income (Including income from wheeling charges) | 7.73 | 8.18 | 8.80 | 9.44 |

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| **Aggregate Revenue Requirement** | **348.85** | **387.65** | **464.32** | **526.89** |

**Table 143: ARR for Retail Supply Business for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Cost of power purchase, including T&D losses | 1213.72 | 1162.26 | 1258.71 | 1410.31 |
| Inter-State Transmission charges | 58.68 | 61.33 | 68.24 | 81.36 |
| Intra-state Transmission charges | 58.95 | 61.89 | 64.99 | 68.24 |
| Wheeling charges payable to other distribution licensee | 0.18 | 0.17 | 0.17 | 0.18 |
| SLDC fees and charges | 0.00 | 0.00 | 0.00 | 0.00 |
| O&M Expenses | 107.76 | 122.21 | 136.49 | 165.27 |
| Depreciation | 22.32 | 17.88 | 27.81 | 30.81 |
| Any other Expense | 27.50 | 28.23 | 29.71 | 31.00 |
| Return on Capital Employed | 1.18 | 1.35 | 1.56 | 1.81 |
| Income Tax | 4.79 | 6.29 | 7.79 | 9.29 |
| Supply Margin | 54.27 | 30.07 | 22.41 | 18.86 |
| Truing up of Expenses of previous years | 164.63 | 151.57 | | |
| Less: Other Income (Including income from wheeling charges) | 35.98 | 38.00 | 40.16 | 42.48 |
| **Aggregate Revenue Requirement** | **1677.98** | **1605.25** | **1577.72** | **1774.64** |

### Commission's Analysis

4.276 The table given below provides a summary view of the Revenue Requirement as approved by the Commission for the Control Period. Detailed analysis of each expense head has already been provided in the above sections.

**Table 144: Approved ARR for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Cost of Power Purchase | 978.92 | 1169.18 | 1254.40 | 1419.58 |
| Inter-State Transmission charges | 56.20 | 53.30 | 55.32 | 91.41 |
| Intra-state Transmission charges | 56.87 | 43.35 | 44.53 | 101.46 |
| Wheeling charges payable to other distribution licensee | 0.00 | 0.00 | 0.00 | 0.00 |
| SLDC fees and charges | 2.26 | 2.01 | 1.87 | 1.92 |
| Operation & Maintenance Costs | 189.64 | 223.76 | 224.80 | 236.65 |
| Depreciation | 39.63 | 51.72 | 62.65 | 71.43 |
| Advance Against Depreciation | 17.00 | 35.59 | 38.48 | 42.93 |
| Other Expenditure | 0.00 | 0.00 | 0.00 | 0.00 |
| Return on Capital Employed including additional return allowed | 86.58 | 119.58 | 143.85 | 160.37 |
| Less: Interest capitalised | 2.31 | 10.54 | 10.31 | 9.06 |
| Less: Non Tariff Income | 41.53 | 44.09 | 46.81 | 49.76 |
| Income Tax Provision | 2.00 | 2.00 | 2.00 | 2.00 |
| **Aggregate Revenue Requirement** | **1385.26** | **1645.86** | **1770.79** | **2068.95** |

4.277 Based on the allocation of different expenses as already discussed above the approved ARR for Wheeling and Retail Supply business is given below.

**Table 145: Approved ARR for Wheeling Business for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Operation & Maintenance Costs | 111.35 | 133.80 | 138.81 | 148.17 |
| Depreciation | 30.27 | 40.28 | 49.19 | 56.23 |
| Advance Against Depreciation | 17.00 | 35.59 | 38.48 | 42.93 |
| Return on Capital Employed | 59.03 | 85.47 | 104.86 | 115.22 |
| Less: Interest capitalised | 1.96 | 9.05 | 8.89 | 7.83 |
| Less: Non Tariff Income | 5.56 | 6.09 | 6.65 | 7.28 |
| Income Tax Provision | 0.40 | 0.40 | 0.40 | 0.40 |
| **Aggregate Revenue Requirement** | **210.53** | **280.40** | **316.20** | **347.86** |

**Table 146: Approved ARR for Retail Supply Business for the Control Period (Rs Cr)**

| Particulars | FY08 | FY09 | FY10 | FY11 |
|---|---|---|---|---|
| Cost of Power Purchase | 978.92 | 1169.18 | 1254.40 | 1419.58 |
| Inter-State Transmission charges | 56.20 | 53.30 | 55.32 | 91.41 |
| Intra-state Transmission charges | 56.87 | 43.35 | 44.53 | 101.46 |
| Wheeling charges payable to other distribution licensee | 0.00 | 0.00 | 0.00 | 0.00 |
| SLDC fees and charges | 2.26 | 2.01 | 1.87 | 1.92 |
| Supply Margin* | 80.48 | 97.62 | 98.47 | 106.72 |
| **Aggregate Revenue Requirement** | **1174.73** | **1365.46** | **1454.59** | **1721.09** |

* *Considering the revenue earned through Supply Margin charge on approved sales*

# A5: TARIFF DESIGN

## Introduction

5.1 The concept behind the Multi Year Tariff framework is to provide predictability and reduce regulatory risk. Under the MYT Framework, the Commission determines the Aggregate Revenue Requirement (ARR) of the Licensee for the entire Control Period at the beginning and set long term performance targets for Licensee. Simultaneously, the Commission segregated costs into two categories; first which are expected to be easily controlled by the Licensee and a second category over which the Licensee does not have significant control. The uncontrollable parameters include Power Purchase Cost and Sales, which may require year to year revision. Since the Power purchase cost represents approximately 70% of the ARR, to take care of any variations in uncontrollable parameter, the Commission has fixed the tariff till 31 March, 2009.

## Components of Tariff Design

5.2 The Commission has considered following components for tariff designing of the DISCOMs.

(a) Uniform v/s Differential Tariff

(b) Cross-subsidisation in tariff structure

(c) Consolidated Sector Revenue Gap/(Surplus)

(d) Cost of service

## Uniform v/s Differential Tariff

5.3 The Policy Directions issued by the GoNCTD mandated that the retail tariff for the DISCOMs shall be identical till the end of FY07, i.e., consumers of a particular category shall pay the same retail tariff irrespective of their geographical location. The Commission has solicited stakeholders' comments and suggestion on the issue of whether to have uniform tariff or differential tariff across various DISCOMs vide the Public Notice dated 22 November, 2007.

5.4 Majority of the stakeholders submitted that consumers in one geographical area in Delhi should be given equitable treatment vis-à-vis consumers in other geographical area in Delhi and advocated for the uniform tariff across all three DISCOMs in Delhi. However, few stakeholders submitted that uniform tariffs for all three DISCOMs violate the principle of rewarding efficiency in the sector and therefore differential tariff needs to be adopted as per the Section 62 (3) of the Electricity Act,2003.

5.5 As per the National Tariff Policy,

"*existing PPAs with the generating companies would need to be suitably assigned to the successor distribution companies. The State Governments may make such assignments taking care of different load profiles of the distribution companies so that retail tariffs are uniform in the State for different categories of consumers. Thereafter the retail tariffs would reflect the relative efficiency of distribution companies in procuring power at competitive costs, controlling theft and reducing other distribution losses.*"

5.6 The Commission had reallocated all existing PPAs among the three distribution companies namely BRPL, BYPL and NDPL in proportion to the energy drawn by them from the date of unbundling of DVB to February 2007 vide order no. F.17 (115)/Engg./DERC/2006-07/ dated 31 March, 2007. NDMC and MES have been assigned specific allocation from BTPS.

5.7 As this is the first Tariff Order after the reallocation of the PPAs, the Commission has kept uniform tariff for FY09 across the three DISCOMs, i.e. consumers of a particular category will pay the same retail tariff irrespective of their geographical location.

## Cross-subsidisation in tariff structure

5.8 The Electricity Act, 2003 provides for reduction of cross subsidies by moving the category wise tariffs towards cost of supply. The Commission also recognises the need for reduction of cross subsidy. However, it is equally incumbent on the Commission to keep in mind the historical perspective for the need to continue with cross-subsidy for some time.

5.9 Regarding Cross subsidy, clause 8.3 of National Tariff Policy states

*"….Direct subsidy is a better way to support the poorer categories of consumers than the mechanism of cross subsidizing the tariff across the board. Subsidies should be targeted effectively and in transparent manner. As a substitute of cross subsidies, the State Government has the option of raising resources through mechanism of electricity duty and giving that subsidy to only needy consumers. This is a better way of targeting subsidies effectively."*

5.10 In line with the above provision of National Tariff Policy, clause 9.1 of the Commission's MYT Regulations, 2007 states that any consumer desirous of getting subsidized tariff shall approach the State Government and if the request for subsidy is found justified, the State Government may give subsidy to that class of consumers so that these consumers get electricity at concessional tariff.

5.11 At present, there are a number of consumer classes such as some slabs of domestic consumers, Agriculture & Mushroom Cultivation, Government Schools/Colleges, Hospitals etc. which are being cross subsidized by other consumers. Several stakeholders have raised serious concern over cross subsidization of some categories and argued that after privatization electricity distribution is purely commercial operation and there is no justification for making some consumers pay for others. If any class of consumers is to be given concessional tariff on socio-economic ground, the State government shall bear the cost on this count as supporting weaker sections of society is the responsibility of the government and this responsibility cannot be thrust upon the other sections of consumers.

5.12 The Commission is of the view that in an ideal case electricity tariff for all categories of consumers should be fixed on cost to serve basis. In accordance with the Act and the policies prescribed from time to time, the Commission has been making attempts to reduce the prevailing cross-subsidy.

## Revenue (Gap)/Surplus at Existing Tariffs

### Petitioner's Submission

5.13 The Petitioner has claimed the truing up of past period expenses and has adjusted the same while proposing the Aggregate Revenue Requirement for the Control Period.

5.14 The Petitioner in the MYT petition has claimed total truing up gap of all expenses for the Policy Direction Period, as Rs. 290.09 Cr in FY07, which was subsequently revised to Rs. 334.08 Cr vide letter dated 26 December, 2007. The Petitioner has proposed to recover half of this amount in FY08 and the balance in FY09 along with a carrying cost of 9% as shown below:

**Table 147: Proposed Adjustment for Truing up Gap by BYPL (Rs. Cr)**

| Particulars | FY07 | FY08 | FY09 |
|---|---|---|---|
| Total Truing Up Gap | (334.08) | | |
| Opening Balance of Gap | | 334.08 | 167.04 |
| Recovery | | 167.04 | 167.04 |
| Closing Balance of Gap | | 167.04 | 0.00 |
| Carrying Cost on average Gap at 9% | | 22.55 | 7.52 |
| **Total Claim** | | **189.59** | **174.55** |

5.15 The Petitioner has also revised the aggregate revenue requirement for the Control Period vide letter dated 26 December, 2007. The revised estimate of aggregate revenue requirement of distribution business for FY08 and FY09 proposed by the Petitioner is summarized below.

**Table 148: Proposed Revenue Requirement for FY08 and FY09 (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| ARR | 1857.81 | 1836.67 |
| Truing Up Expense for Previous Years | 189.59 | 174.55 |
| **Total Revenue Requirement** | **2047.39** | **2011.23** |

5.16 The Petitioner has submitted the estimates of slab wise consumption in each consumer category for each year of the Control Period and has projected the revenue from the sales to each category and slab considering the existing tariff schedule. The Petitioner, however, has revised the estimates of revenue earned at existing tariffs and has submitted the same vide letter dated 26 December, 2007. The estimate of the revenue (gap)/ surplus submitted by the Petitioner is shown below:

**Table 149: Revenue (Gap)/Surplus for the FY08 and FY09 estimated by BYPL (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Total Revenue Requirement | 2047.39 | 2011.23 |
| Revenue at existing tariffs | 1480.44 | 1608.92 |
| **Revenue (Gap)/ Surplus** | **(566.56)** | **(402.08)** |

5.17 The Petitioner has submitted that the revenue gap projected at existing tariffs for the Control Period is mainly due to the following factors:

(a) Recovery of previous years expenses including differential of depreciation along with carrying cost pursuant to Hon'ble Supreme Court Order / Hon'ble Appellate Tribunal Order.

(b) Increase in Power Purchase Costs due to allocation of existing Generation Capacity available to the State of Delhi.

(c) The balance revenue gap corresponding to inflation, effect of wage revision and increase in depreciation and ROCE on account of proposed capitalisation of Assets during the Control Period.

5.18 The Petitioner has also submitted the break-up of the revenue gap as shown below:

**Table 150: Break-up of Revenue Gap for FY08 and FY09 submitted by BYPL (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Total Revenue Gap | (566.56) | (402.08) |
| Past Period Expenses with Carrying Cost | (189.59) | (174.55) |
| Impact of Increase in Power Purchase Cost | (246.34) | (158.28) |
| Balance Revenue Gap | (130.63) | (69.25) |

## Commission's Analysis

5.19 The Commission has analyzed the claims of the Petitioner with respect to the past period expenses and has determined the total truing up gap of the Petitioner for Policy Direction Period including carrying cost as Rs 158.50 Cr (as discussed in the truing up section).

5.20 The Petitioner, in its letter dated 7 May, 2007 agreed to recover the past arrears in a phased manner over the next two years. Therefore, the Commission has assumed that the past arrears can be recovered in the next two years after issuance of this Tariff Order.

5.21 The Commission has also determined the aggregate revenue requirement of the Petitioner for the Control Period, as also mentioned in Chapter 4 of the Order. The summary of the approved ARR is shown below:

**Table 151: Approved ARR for BYPL (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| ARR for the Control Period | 1385.26 | 1645.86 |

5.22 The Commission has analyzed past sales trends for each distribution company and has forecasted slab-wise sales for each consumer category for the Control Period to project revenue from existing tariff as it is required to be estimated to assess whether the annual revenue requirement is met with the existing tariff at the approved sales. If a revenue gap exists, the same needs to be bridged by means such as increase in tariffs, support from the Government etc.

5.23 The Commission's estimate of the revenues from sale of power for FY08 and FY09 at existing tariffs is tabulated below.

**Table 152: Revenue (Gap)/Surplus for BYPL for FY08 and FY09 (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Aggregate Revenue Requirement | 1385.26 | 1645.86 |
| Revenue at existing tariffs | 1527.79 | 1651.92 |
| Revenue (gap)/ Surplus | 142.53 | 6.06 |

## Consolidated Revenue (Gap)/ Surplus for the Sector

5.24 The revenue (gap)/ surplus of all the three DISCOMs viz. BRPL, BYPL and NDPL at existing tariffs are shown below.

**Table 153: Revenue (Gap)/Surplus for all DISCOMs (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| BRPL | 214.41 | 286.71 |
| BYPL | 142.53 | 6.06 |
| NDPL | 15.99 | 171.62 |

5.25 The Commission notes that all the three distribution companies have revenue surplus at existing level of tariffs in FY08 and FY09 without considering the truing up gap of previous years. The Commission is of the opinion that, gap due to past arrears can be fully recovered through the revenue realized by all the DISCOMs in FY08 and FY09.

## Treatment of Revenue (Gap)/Surplus

### Petitioner's Submission

5.26 BYPL has structured their Tariff Proposal to bridge revenue gap for MYT Control Period in the following manner

(a) Recovery of Past Period Expenses- BYPL has proposed adjustment of past gap of Rs 290.06 Cr at the end of FY07 (including amount arising out of the Supreme Court Order regarding Depreciation and ATE Order on the Tariff Order of FY 06-07) through Govt. support/BST adjustment. In case the option of Govt. Support/BST adjustment does not materialize, the Petitioner has proposed levy of one time surcharge of Rs 0.71 per unit to recover this amount (along with carrying cost) over 15 months i.e. from 01 January 2008 to 31 March, 2009 (assuming that the Tariff Order will be effective from 1 January 2008).

(b) The Petitioner has submitted that it has considered the entire unallocated power vested with GoNCTD for the MYT Period shall be available to BYPL. The Petitioner has submitted that it has to procure costly power through bilateral arrangement, short term arrangement or UI to meet its power requirement. The Petitioner has proposed levy of Power Purchase Adjustment Charge of 91.50 Paise / kWh from all consumers excepting for Domestic consumer consuming upto 200 units per month, JJ Clusters, Agricultural category and Mushroom category of consumers to mitigate increase in costs in power purchase costs over the base year FY07.

(c) The Petitioner further proposes to recover the balance revenue gap arising due to inflation, effect of wage revision and increase in depreciation and RoCE on account of proposed capitalisation of assets during the Control Period through revision in consumers tariff. The Petitioner has submitted that recovery of balance revenue gap of four years i.e. from FY08 to FY11 from revised tariffs in 39 months i.e., from 1 January, 2008 to 31 March, 2011 through proposed uniform tariff increase across all the consumer categories except JJ Clusters, first slab of domestic consumers (0-200 units per month), Agriculture and Mushroom cultivation. The proposed average tariff increase required for meeting the balance uncovered gap by applying the tariff increase to categories except JJ clusters, Agricultural & Mushroom cultivation and for first slab of domestic consumers (upto 200 units) per month is around 8.5%.

### Commission's Analysis

5.27 BYPL is revenue surplus in FY08 and FY09 at the existing level of tariffs. The Commission has adjusted the total truing up gap approved for the Petitioner in FY07 i.e. Rs. 158.50 Cr with the surplus revenue available in FY08 and FY09. The Commission has adopted the similar approach, as followed by the Petitioner to adjust the truing up gap of previous years i.e. the opening level of gap is recovered in FY08 to the extent the revenue surplus is available and the balance if any shall be recovered in FY09 along with the carrying cost of 9%.

5.28 The summary of adjustment of the truing up gap of BYPL, if the existing tariffs continue, is shown below:

**Table 154: Adjustment for Truing up gap for BYPL at existing tariff (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (158.50) | (23.82) |
| Revenue Requirement without truing up | 1385.26 | 1645.86 |
| Revenue at existing tariffs | 1527.79 | 1651.92 |
| Surplus/ (Gap) for the year | 142.53 | 6.06 |
| Surplus utilised towards amortization of Gap | 142.53 | 6.06 |
| Closing level of Gap | (15.97) | (17.76) |
| Carrying Cost for the year (at 9%) | (7.85) | (1.87) |
| Surplus available to recover carrying cost | 0.00 | 0.00 |
| Net (Gap)/ Surplus | (23.82) | (19.63) |

5.29 The Commission has carried out the same exercise for BRPL and NDPL. The summary of adjustment of the truing up gap of BRPL and NDPL, if the existing tariffs continue, is shown below.

**Table 155: Adjustment for Truing up gap for BRPL at existing tariff (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (404.47) | (216.81) |
| Revenue Requirement without truing up | 2787.82 | 2986.85 |
| Revenue at existing tariffs | 3002.23 | 3273.56 |
| Surplus/ (Gap) for the year | 214.41 | 286.71 |
| Surplus utilised towards amortization of Gap | 214.41 | 226.57 |
| Closing level of Gap | (190.06) | 0.00 |
| Carrying Cost for the year (at 9%) | (26.75) | (9.76) |
| Surplus available to recover carrying cost | 0.00 | 69.90 |
| Net (Gap)/ Surplus | (216.81) | 60.14 |

**Table 156: Adjustment for Truing up gap for NDPL at existing tariff (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (138.94) | (134.73) |
| Revenue Requirement without truing up | 2218.48 | 2254.05 |
| Revenue at existing tariffs | 2234.48 | 2425.67 |
| Surplus/ (Gap) for the year | 15.99 | 171.62 |
| Surplus utilised towards amortization of Gap | 15.99 | 134.73 |

| Particulars | FY08 | FY09 |
|---|---|---|
| Closing level of Gap | (122.95) | 0.00 |
| Carrying Cost for the year (at 9%) | (11.78) | (6.06) |
| Surplus available to recover carrying cost | 0.00 | 36.89 |
| Net (Gap)/ Surplus | (134.73) | 30.83 |

5.30 It can be seen from the above that, at the existing level of tariffs BRPL and NDPL are able to recover the approved truing up gap fully in FY08 and FY09 without any revenue gap in these years. However, BYPL is not able to fully recover the approved truing up gap till FY09 and shows a revenue gap of Rs. 19.63 Cr.

5.31 The Commission has explored various alternatives to bridge the revenue gap of BYPL in FY09. The Commission feels that the revenue gap of BYPL in FY09 could be bridged only by an increase in the revenue of BYPL for FY09. Thus, there is a requirement of a marginal increase in tariffs to the extent the revenue gap of BYPL is bridged. The Commission, here, would like to highlight that since there will be uniform tariffs for all the consumers in a specific category irrespective of the distribution company they belong to, the tariffs for the three DISCOMs have to be marginally increased.

5.32 Considering the above, the Commission has approved a uniform energy charge increase of 5 Paisa per unit across all categories (except for DMRC). The energy charge for DMRC has been increased to 300 Paisa/kVAh from the existing level. Tariff rates for fixed charges has not been altered and retained at the same level of FY07.

5.33 The surplus, if any, for any of the distribution companies after considering the marginal tariff increase and full recovery of truing up gap of the respective companies in FY09 would be transferred to the MYT contingency reserve as specified in MYT Regulations and the same shall be kept in view while determining the aggregate revenue requirement and the tariff structure of the respective company for FY10 and FY11.

## Revenue (Gap)/Surplus at Approved Tariffs

5.34 The summary of net revenue surplus/ (gap) for BYPL along with adjustment of the truing up gap at approved tariffs is shown below.

**Table 157: Net Revenue (Gap)/Surplus of BYPL at Approved Tariffs (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (158.50) | (22.62) |
| Revenue Requirement without truing up | 1385.26 | 1645.86 |
| Revenue at approved tariffs | 1528.94 | 1672.87 |
| Surplus/ (Gap) for the year | 143.68 | 27.01 |

| Particulars | FY08 | FY09 |
|---|---|---|
| Surplus utilised towards amortization of Gap | 143.68 | 22.62 |
| Closing level of Gap | (14.82) | 0.00 |
| Carrying Cost for the year (at 9%) | (7.80) | (1.02) |
| Surplus available to recover carrying cost | 0.00 | 4.39 |
| Net (Gap)/ Surplus | (22.62) | 3.37 |

5.35 The summary of net revenue surplus/ (gap) for BRPL and NDPL along with adjustment of the truing up gap at approved tariffs is shown below.

**Table 158: Net Revenue (Gap)/Surplus of BRPL at Approved Tariffs (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (404.47) | (214.29) |
| Revenue Requirement without truing up | 2787.82 | 2986.85 |
| Revenue at approved tariffs | 3004.64 | 3318.07 |
| Surplus/ (Gap) for the year | 216.82 | 214.29 |
| Surplus utilised towards amortization of Gap | 216.82 | 214.29 |
| Closing level of Gap | (187.65) | 0.00 |
| Carrying Cost for the year (at 9%) | (26.75) | (9.76) |
| Surplus available to recover carrying cost | 0.00 | 116.93 |
| Net (Gap)/ Surplus | (214.29) | 107.29 |

**Table 159: Net Revenue (Gap)/Surplus of NDPL at Approved Tariffs (Rs. Cr)**

| Particulars | FY08 | FY09 |
|---|---|---|
| Opening level of Gap | (138.94) | (130.70) |
| Revenue Requirement without truing up | 2218.48 | 2254.05 |
| Revenue at approved tariffs | 2238.34 | 2461.77 |
| Surplus/ (Gap) for the year | 19.85 | 207.72 |
| Surplus utilised towards amortization of Gap | 19.85 | 130.70 |
| Closing level of Gap | (119.09) | 0.00 |
| Carrying Cost for the year (at 9%) | (11.61) | (5.88) |
| Surplus available to recover carrying cost | 0.00 | 77.03 |
| Net (Gap)/ Surplus | (130.70) | 71.14 |

5.36 The Commission, hereby, directs the Petitioner to transfer the complete surplus revenue realised in FY09 at approved tariffs to MYT Contingency Reserve. The Commission however, would like to highlight that the surplus revenue of Rs. 3.37 Cr as determined is a provisional estimate and may change while truing up the expenses for FY09.

## Cost of Service Model

5.37 While determining the revenue requirement, various sectors of services, viz. generation, transmission and the distribution cost contributes to the total cost of service. The relative burden of constituent consumer categories is assessed and on the basis of the cost imposed on the system, it is decided as to how much share is due to which category of consumers. Although, it shall be equitable to have the embedded cost in designing the tariff for different consumer categories, it calls for a detailed database of allocated costs. Such allocations in the determination of embedded cost are done on the basis of following factors:

(a) Voltage of supply;

(b) Power factor;

(c) Load factor;

(d) Time of use of electricity;

(e) Quantity of electricity consumed,

(f) AT&C Loss etc.

5.38 As the detailed information regarding all the above factors except AT&C loss is not available, it would be difficult to assess the cost of service with reference to all the above factors except AT&C loss.

5.39 The Commission has carried out a study for calculating the voltage wise cost of supply (CoS) for all the three DISCOMs for FY08 and FY09. The approach adopted by the Commission for determining the CoS for different voltage levels has been described in the following paragraphs.

5.40 The approved ARR of the Wheeling and Retail Supply business (excluding supply margin) is allocated to different voltage levels and the same has been considered along with the energy sales to the respective voltage level to arrive at the Paisa per unit Wheeling charge and Retail Supply Charge for that voltage level (detailed methodology discussed ahead).

**Allocation of Wheeling ARR**

5.41 The Commission has considered the gross energy sales (MU) approved for Discom for the year and has allocated the same to different voltage levels in the proportion of energy sales (MU) to these voltages to total sales in that year as submitted by the respective Discom.

**Table 160: Approved Energy Sales (MU)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Sales above 66 kV level | 202.70 | 56.50 | 45.27 | 228.44 | 67.28 | 50.40 |
| Sales at 33/66 kV level | 17.31 | 18.18 | 79.12 | 19.62 | 20.75 | 84.84 |
| Sales at 11 kV level | 1,157.29 | 400.21 | 949.22 | 1,286.41 | 454.75 | 1,007.43 |
| Sales at LT level | 4,927.92 | 2,782.35 | 3,659.67 | 5,289.43 | 2,973.31 | 3,976.21 |
| **Total** | **6,305.22** | **3,257.24** | **4,733.28** | **6,823.89** | **3,516.09** | **5,118.88** |

5.42 The Commission has, thereafter, grossed up the energy sales (MU) at the specific voltage level with the respective distribution losses (%) at that level to arrive at the Energy Input (MU) for that level. Since the accurate baseline data for the voltage wise distribution losses is not available, the Commission has considered the estimates of the same after considering the submissions made by the DISCOMs, and approved distribution losses (Table 51). The summary of the voltage wise distribution losses considered by the Commission is as follows.

**Table 161: Distribution Loss (%)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Loss at 66 kV level | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Loss at 33/66 kV level | 4.50% | 4.50% | 3.00% | 4.00% | 4.00% | 3.00% |
| Loss at 11 kV level | 15.37% | 15.37% | 15.37% | 13.51% | 13.51% | 13.51% |
| Loss at LT level | 28.85% | 36.70% | 23.13% | 25.63% | 32.54% | 21.66% |
| **Overall** | **25.95%** | **34.11%** | **21.24%** | **22.88%** | **29.99%** | **19.75%** |

5.43 The Commission would like to re-iterate that the voltage wise distribution losses considered above are estimates and may not reflect the actual picture. The Commission, in this regard directs all the three DISCOMs (BRPL, BYPL and NDPL) to immediately carry out energy audit of the sales at HT level (33 kV and 11kV) and submit the report to the Commission by 30 June, 2008, so that the actual data of distribution losses at different voltage levels could be used to calculate the cost of supply in the next Tariff Order. The summary of Energy Input (MU) for the respective voltage levels are shown below:

**Table 162: Approved Energy Input (MU)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Input for 66 kV level | 202.70 | 56.50 | 45.27 | 228.44 | 67.28 | 50.40 |
| Input for 33/66 kV level | 18.12 | 19.04 | 81.57 | 20.43 | 21.61 | 87.46 |
| Input for 11 kV level | 1,367.47 | 472.89 | 1,121.61 | 1,487.35 | 525.78 | 1,164.80 |
| Input for LT level | 6,926.46 | 4,395.29 | 4,761.10 | 7,112.37 | 4,407.58 | 5,075.85 |
| **Total** | **8,514.76** | **4,943.72** | **6,009.56** | **8,848.59** | **5,022.26** | **6,378.51** |

5.44 Next, the Commission has allocated the approved GFA of the DISCOMs to different voltage levels. For this, the Commission had directed the DISCOMs to submit their estimates of allocation of GFA to different voltage levels. NDPL vide letter no NDPL\DERC\MYT\2007-08 dated 21 February, 2008 has submitted the estimates as per their cost records. The BSES companies, however, has submitted vide letter dated 21 February, 2008 that the voltage wise allocation of assets has not been carried out by the companies in the past and that in the absence of the voltage wise details of GFA the same may be apportioned in ratio of sales for EHT, HT and LT

5.45 The Commission is of the opinion that allocating GFA in the proportion of sales is not a correct methodology as bulk of the sales occurs at LT level and that it would unnecessarily load the wheeling cost at the LT level and thereby subsidizing the wheeling cost at HT and EHT level. The Commission thus, for the purpose of allocating the GFA for BSES companies has considered the same proportion as submitted by NDPL.

5.46 The Commission in consideration of the above directs the DISCOMs to carry out the voltage wise assets segregation and provide the details of the same to the Commission by 31 May, 2008.

5.47 Based on the voltage wise assets allocation submitted by NDPL, the Commission has allocated the Wheeling ARR to the assets at respective voltage levels, which is summarised below:

**Table 163: Wheeling Cost allocation asset wise (Rs Cr)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Asset at 66 kV level | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Asset at 33/66 kV level | 60.78 | 37.14 | 53.91 | 74.75 | 49.46 | 64.79 |
| Asset at 11 kV level | 169.61 | 103.63 | 150.45 | 208.59 | 138.02 | 180.79 |
| Asset at LT level | 114.19 | 69.77 | 101.29 | 140.43 | 92.92 | 121.72 |
| **Total** | **344.59** | **210.53** | **305.66** | **423.76** | **280.40** | **367.29** |

5.48 The Wheeling cost apportioned above to a particular assets category is thereby reallocated to different voltage levels in proportion of their contribution to the energy input at that level as shown below:

**Table 164: Wheeling Cost allocated to different voltages (Rs Cr)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Above 66 kV level | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| At 33/66 kV level | 0.13 | 0.14 | 0.74 | 0.18 | 0.22 | 0.90 |
| At 11 kV level | 37.96 | 13.66 | 38.82 | 48.97 | 19.96 | 45.67 |
| At LT level | 306.49 | 196.73 | 266.10 | 374.61 | 260.23 | 320.73 |
| **Total** | **344.59** | **210.53** | **305.66** | **423.76** | **280.40** | **367.29** |

5.49 Based on the energy sales at the respective voltage level the Commission has determined the Wheeling Charge per unit for different voltages for FY08 and FY09.

**Table 165: Wheeling Charge (Paisa per unit)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Above 66 kV level | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| At 33/66 kV level | 7.66 | 7.96 | 9.32 | 9.03 | 10.40 | 10.55 |
| At 11 kV level | 32.80 | 34.13 | 40.90 | 38.07 | 43.89 | 45.33 |
| At LT level | 62.19 | 70.71 | 72.71 | 70.82 | 87.52 | 80.66 |
| **Average** | **54.65** | **64.64** | **64.58** | **62.10** | **79.75** | **71.75** |

**Allocation of Supply Margin and balance of Retail Supply ARR**

5.50 The Commission has allocated the Retail Supply ARR (excluding Supply Margin) and the Supply Margin approved in the ratio of energy input determined above for different voltage levels. The Commission has thereafter, determined the Retail Supply charge and Supply Margin charge for a particular voltage level by considering energy sales at that voltage level. The summary of the same is shown below.

**Table 166: Retail Supply Charge (Paisa per unit)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Above 66 kV level | 269.83 | 221.34 | 292.68 | 270.11 | 252.44 | 267.84 |
| At 33/66 kV level | 282.55 | 231.77 | 301.73 | 281.36 | 262.96 | 276.13 |
| At 11 kV level | 318.84 | 261.54 | 345.83 | 312.30 | 291.88 | 309.68 |
| At LT level | 379.26 | 349.65 | 380.76 | 363.20 | 374.22 | 341.92 |
| **Average** | **364.39** | **335.94** | **371.60** | **350.25** | **360.58** | **333.75** |

**Table 167: Supply Margin Charge (Paisa per unit)**

| Particulars | FY08 | | | FY09 | | |
|---|---|---|---|---|---|---|
| | BRPL | BYPL | NDPL | BRPL | BYPL | NDPL |
| Above 66 kV level | 17.11 | 16.28 | 25.62 | 19.55 | 19.44 | 27.96 |
| At 33/66 kV level | 17.91 | 17.05 | 26.41 | 20.37 | 20.25 | 28.82 |
| At 11 kV level | 20.21 | 19.24 | 30.27 | 22.61 | 22.47 | 32.32 |
| At LT level | 24.05 | 25.72 | 33.33 | 26.29 | 28.81 | 35.69 |
| **Average** | **23.10** | **24.71** | **32.53** | **25.35** | **27.76** | **34.84** |

5.51 The cost of supply determined by the Commission for the different voltage levels is shown below.

**Table 168: Cost of Supply for BYPL (Paisa per Unit)**

| Particulars | FY08 | | | | FY09 | | | |
|---|---|---|---|---|---|---|---|---|
| | Wheeling | RST | SM | Total | Wheeling | RST | SM | Total |
| Above 66 kV level | 0.00 | 221.34 | 16.28 | **237.62** | 0.00 | 252.44 | 19.44 | **271.88** |
| At 33/66 kV level | 7.96 | 231.77 | 17.05 | **256.77** | 10.40 | 262.96 | 20.25 | **293.61** |
| At 11 kV level | 34.13 | 261.54 | 19.24 | **314.91** | 43.89 | 291.88 | 22.47 | **358.24** |
| At LT level | 70.71 | 349.65 | 25.72 | **446.08** | 87.52 | 374.22 | 28.81 | **490.55** |
| **Average** | **64.64** | **335.94** | **24.71** | **425.29** | **79.75** | **360.58** | **27.76** | **468.09** |

**Table 169: Cost of Supply for BRPL (Paisa per Unit)**

| Particulars | FY08 | | | | FY09 | | | |
|---|---|---|---|---|---|---|---|---|
| | Wheeling | RST | SM | Total | Wheeling | RST | SM | Total |
| Above 66 kV level | 0.00 | 269.83 | 17.11 | **286.94** | 0.00 | 270.11 | 19.55 | **289.66** |
| At 33/66 kV level | 7.66 | 282.55 | 17.91 | **308.12** | 9.03 | 281.36 | 20.37 | **310.76** |
| At 11 kV level | 32.80 | 318.84 | 20.21 | **371.86** | 38.07 | 312.30 | 22.61 | **372.98** |
| At LT level | 62.19 | 379.26 | 24.05 | **465.51** | 70.82 | 363.20 | 26.29 | **460.31** |
| **Average** | **54.65** | **364.39** | **23.10** | **442.14** | **62.10** | **350.25** | **25.35** | **437.71** |

**Table 170: Cost of Supply for NDPL (Paisa per Unit)**

| Particulars | FY08 | | | | FY09 | | | |
|---|---|---|---|---|---|---|---|---|
| | Wheeling | RST | SM | Total | Wheeling | RST | SM | Total |
| Above 66 kV level | 0.00 | 292.68 | 25.62 | **318.30** | 0.00 | 267.84 | 27.96 | **295.80** |
| At 33/66 kV level | 9.32 | 301.73 | 26.41 | **337.46** | 10.55 | 276.13 | 28.82 | **315.50** |
| At 11 kV level | 40.90 | 345.83 | 30.27 | **417.01** | 45.33 | 309.68 | 32.32 | **387.34** |
| At LT level | 72.71 | 380.76 | 33.33 | **486.80** | 80.66 | 341.92 | 35.69 | **458.27** |
| **Average** | **64.58** | **371.60** | **32.53** | **468.70** | **71.75** | **333.75** | **34.84** | **440.34** |

## Tariff Structure

### Domestic Tariff

5.52 Domestic tariff is applicable for the lighting/fan and power consumption of residential consumers, hostels of recognized/aided educational institutions and staircase lighting in residential flats, compound lighting, lifts and water pumps or drinking water supply and fire fighting equipment, etc. in Cooperative Group Housing Societies (CGHS), bonafide domestic use in farm houses, etc.

5.53 The Commission in its Tariff Order dated June 26, 2003 introduced two part tariff for domestic consumers, i.e., fixed charges and energy charges and abolished minimum charges and meter rent. The fixed charge in two-part tariff represents the fixed component of charges, which is independent of consumption level and depends on the fixed cost incurred by the Utility in supplying electricity. The Commission has received several suggestions on the levy of fixed charges from the Petitioners as well as respondents. The Commission has already explained the rationale of fixed charges in detail in its previous Tariff Orders.

5.54 The Commission has considered the views expressed by the stakeholders and after considering various options, the Commission proposes to continue with the existing methodology of levying fixed charges on slab system, based on the sanctioned load till the sanctioned load of 5 kW and for the sanctioned load above 5 kW, the fixed charges shall be applicable in Rs/kW terms. The Commission has proposed a 5 paisa per unit increase in energy charges for domestic lighting/fan and power category.

### JJ Clusters

5.55 The Commission has separately dealt with the tariff for JJ Clusters while processing the Petition filed by DISCOMs in the matter of "Waiver of Development Charges for JJ Clusters" and issued the Order on March 26, 2004. In this Order, the Commission had approved the tariff for JJ Clusters and had mentioned that *"in addition to the cost borne by the consumer for the infrastructure, for the energy consumed, every consumer will pay Rs 175.00 per month. The Commission considering the fact that these consumers belong to economically weaker sections of the society had decided not to increase the tariff and had retained the tariff at Rs 175.00 per month. The Commission believes that this will result in several benefits to the system such as these consumers will become part of network which will avoid unpredictable overloading of system. This will also increase the revenue substantially which otherwise would have to be borne by other consumers"*.

5.56 The Commission retains the same arrangement for the Control Period as well. However, the National Tariff Policy stipulates 100% metering of the energy sales, Therefore Commission directs the Petitioner to install meters in JJ cluster and bill them as per the applicable tariff for domestic category slabs. The Commission has noted that the Petitioner in its petition has assumed that all JJ cluster consumers will be metered by FY10 and this category may not be necessary thereafter.

5.57 The issue of charging non-domestic tariff to the small commercial establishments being run in JJ Clusters has also been raised by the DISCOMs.

5.58 The consumers running small commercial establishments from their households in JJ clusters shall be charged domestic tariff provided that their total consumption of electricity in a month does not exceed 200 units.

**Domestic lighting/fan & power on 11 kV single delivery point for CGHS and other similar Group Housing Complexes**

5.59 In respect of tariffs for CGHS, the Commission had indicated in tariff schedule of its earlier Orders that billing would be as per the energy charges applicable for the first 44.4% of consumption, next 44.4% of consumption and next 11.2% of consumption. The Commission proposes to follow similar approach in this Tariff Order as well. The Commission has approved a uniform increase of 5 Paisa per unit in energy charges for this sub-category.

5.60 In respect of the tariff charged by a CGHS to its constituent consumers, the Commission in its previous Order stated that the tariff charged by a CGHS to its constituent members shall be mutually determined by the CGHS and its constituent consumers. The Commission has proposed to continue with the existing practice for FY08 and FY09.

**Domestic lighting/fan and power connections in un-electrified left out pockets and villages**

5.61 The tariff for domestic connections in un-electrified left out pockets and villages is applicable on the basis of plot size. The Commission has assigned energy consumption levels to different categories. The lump sum monthly rates payable for this sub-category have been approved at the same level as in FY07.

5.62 The Commission, however, expects that the meters will be installed on connections in un-electrified left out pockets and villages once these areas are electrified and the billing would start as per the approved tariff schedule duly taking into account the category to which the consumer belongs. When all such consumers have been metered, this category would be abolished and the metered tariff shall be made applicable for these consumers. The Commission has proposed to continue with the existing level of tariff for this sub-category for FY08 and FY09. The Petitioner is directed to furnish the number of installation where supply is already metered and the number of connections which are yet to be provided with meters.

## Non-Domestic Tariff

5.63 Non-domestic category of consumers comprises two sub-categories, viz., Non-domestic Low Tension (NDLT) with load upto 100 kW and Mixed Load High Tension (MLHT) with load more than 100 kW.

### Non-Domestic Low Tension (NDLT)

5.64 This category covers LT non-domestic consumers having connected load upto 100 kW (other than the industrial load) for lighting, fan & heating/cooling power appliances.

5.65 The Commission has decided to increase the energy charges by 5 paisa per unit in energy charges for non-domestic consumers from the level of FY07. For the consumers with sanctioned load up to 10 kW in NDLT category, the Commission had specified the kWh based tariff only. The Commission has decided to continue with the existing practice. The Commission proposes to retain the Fixed Charges for NDLT category at the same level of FY07.

5.66 The Commission in its Tariff order for FY07 had decided that the energy charges for 11 kV single delivery point commercial complexes will be the same as that applicable for NDLT consumers between 10 kW to 100 kW, with a 15% rebate on energy charges. The Commission proposes to continue with the existing level of fixed charges and increase energy charges by 5 Paisa per unit for this category.

### Mixed Load High Tension (MLHT)

5.67 This category includes non-domestic consumers having load above 100 kW for lighting, fan, heating/cooling power appliances in non-domestic establishment, pumping loads of Delhi Jal Board/DDA/MCD, etc.

5.68 The MLHT consumers availing LT supply are required to pay a higher demand charge as compared to MLHT consumers availing supply at 11 kV. The higher the voltage of supply, lower the system losses and hence the consumption by MLHT consumers at LT voltages has to be discouraged. The Commission believes that with gradual movement towards voltage linked tariff, irrespective of load of the consumer, the tariff for consumption at higher voltages will be lower than that for low voltages, which will discourage consumers to opt for LT connections particularly for loads higher than 100 kW.

5.69 For MLHT category also, the Commission approves increase of 5 Paisa per unit in energy charges. For supply at 33/66 kV, consumers will get a rebate of 2.5% on the energy charges applicable for 11 kV supply and a rebate of 4% for supply at 220 kV. The demand charge shall continue at the existing level. The Commission proposes to continue with the existing level of rebate for this category for the notified duration of new tariff schedule.

**Industrial Tariff**

5.70 Industrial category of consumers consist of two sub-categories, viz., Small Industrial Power (SIP) with load upto 100 kW and Large Industrial Power (LIP) with load more than 100 kW. Industrial consumption in Delhi is approximately 19% of the total billed unit in Delhi.

**Small Industrial Power (SIP)**

5.71 This category consists of industrial consumers with load up to 100 kW including lighting, heating and cooling load.

5.72 For the consumers with sanctioned load up to 10 kW in SIP category, the Commission had specified the kWh based tariff only. The Commission proposes to continue with the existing level of fixed charges and increase energy charges by 5 Paisa per unit for this category for the notified duration of new tariff schedule.

**Large Industrial Power (LIP)**

5.73 This category includes large industrial consumers having load above 100 KW including lighting load.

5.74 LIP consumers availing LT supply are required to pay a higher demand charge, as compared to LIP consumers availing supply at 11 kV. The higher the voltage of supply, lower the system losses and hence the consumption by LIP consumers at LT voltages has to be discouraged. The Commission believes that with gradual movement towards voltage linked tariff, irrespective of load of the consumer, the tariff for consumption at higher voltages will be lower than that for low voltages, which will discourage consumers to opt for LT connections particularly for loads higher than 100 kW.

5.75 For supply at 33/66 kV, consumers will get a rebate of 2.5% on the energy charges applicable for supply at 11 kV and a rebate of 4% for supply at 220 kV. The demand charge shall continue at the existing level. The Commission proposes to continue with the existing level of rebate for this sub-category for the notified duration of new tariff schedule.

5.76 The Commission proposes to continue with the existing level of fixed charges and increase energy charges by 5 Paisa per unit for this category for the notified duration of new tariff schedule.

**Agriculture and Mushroom Cultivation Tariff**

5.77 Agriculture connections are available for tube wells for irrigation, threshers and kutty cutting in conjunction with pumping load for irrigation purpose for load up to 10 kW and lighting load for bonafide use in 'Kothra'. The percentage share of agricultural consumption is only around 0.4% of the total billed units in Delhi.

5.78 The Commission proposes to continue with the existing level of fixed charges and increase energy charges by 5 Paisa per unit for this category for the notified duration of new tariff schedule.

**Public Lighting**

5.79 Tariff for this category is applicable to all street light consumers including MCD, DDA, PWD/CPWD, CGHS, Slums, DSIDC and certain civilian pockets of MES. The share of MCD, however is dominating as most of the street lights in the city are owned by the MCD. Public Lighting consumption is about 2.1% of the total billed units in Delhi.

5.80 The Commission in its previous Tariff Orders had set the tariff for public lighting equivalent to energy charge of the highest slab in the domestic category. The Commission continues to follow this principle. The Commission proposes to increase energy charges by 5 Paisa per unit for this category for the notified duration of new tariff schedule.

5.81 As regard to the maintenance charges for street lighting, the Commission had issued a separate Order on March 16, 2004. The Commission would like to clarify that the maintenance charges and other conditions of maintenance of street lights as approved in the Commission's Order dated March 16, 2004 will continue till such time it is amended

**Railway Traction**

5.82 The Commission proposes to continue with the existing level of fixed charges and increase energy charges by 5 Paisa per unit for this category for the notified duration of new tariff schedule.

**Delhi Metro Rail Corporation Ltd. (DMRC)**

5.83 DMRC in its response on ARR and Tariff Petitions for FY08 has requested the Commission to continue with the principles and methodology adopted for determining Tariff for DMRC in the earlier Tariff Orders. Further, during the public hearing, DMRC submitted that the tariff for DMRC should be kept at same level without any increase in tariff.

5.84 In its Tariff Order dated June 9, 2004 the Commission treated DMRC as a separate category of consumer and had determined the tariff for DMRC on the basis of average cost of supply by TRANSCO to DMRC by adding a nominal component of overheads of the DISCOM for the supply at 220 kV and 66 kV.

5.85 BRPL has proposed energy charges for DMRC as 366.5 paisa/ kVAh vis-à-vis 412.5 paisa/kVAh proposed by BYPL and 492 paisa/kVAh proposed by NDPL.

5.86 The current tariff rate of DMRC is way lower than the cost of supply. The average power purchase cost for all the DISCOMs has gone up substantially in last few years. The cost of power purchase for the three DISCOMs is estimated to vary between Rs 2.33 and Rs 2.54 per unit.

5.87 The Commission has determined tariff for DMRC after considering average power purchase cost for DISCOMs, applicable losses and other distribution overheads applicable for DMRC. It has been also noted that in previous years DMRC was charged below the cost of supply as the power purchase cost for DISCOMs had increased. Therefore, the Commission has taken power purchase cost for DMRC as 5% extra over power purchase cost estimated for DISCOMs. The Commission is of the opinion that DMRC cannot be subsidized by other categories.

5.88 The Commission has, thus decided to increase the applicable energy charges for DMRC to meet the cost of supply. In consideration of this, the Commission proposes the new energy charges of 300 Paisa/kVAh and fixed charges at Rs 75/kVA/month.

5.89 As regard to the tariff for commercial and other establishments being supplied by DMRC, the Commission addressed the issue vide its Order dated May 5, 2004. Subsequently in the Tariff Order dated June 9, 2004 the Commission mentioned that the discounts as agreed between the parties on NDLT II Tariff shall be applicable based on the revised tariff schedule in this Order. The Commission has proposed to continue with the existing practice for this category for the FY07.

**Temporary Supply**

5.90 The Commission does not propose any change in the existing tariff mechanism for temporary supply as mentioned in Tariff Schedule.

# Tariff Schedule

(To be read along with "Other Terms & Conditions of the tariff")

| | Category | Fixed/Demand Charges [1] | Energy Charges |
|---|---|---|---|
| **1** | **Domestic** | | |
| 1.1 | **JJ Clusters** | 175 Rs/month | |
| 1.2 | **Domestic Lighting/ Fan and Power** | | |
| | **Upto 2 kW Load** | | |
| | 0-200 units | 24 Rs/month | 245 P/kWh |
| | 201-400 units | 24 Rs/month | 395 P/kWh |
| | Above 400units | 24 Rs/month | 465 P/kWh |
| | **2 to 5 kW Load** | | |
| | 0-200 units | 60 Rs/month | 245 P/kWh |
| | 201-400 units | 60 Rs/month | 395 P/kWh |
| | Above 400units | 60 Rs/month | 465 P/kWh |
| | **Above 5 kW Load** | | |
| | 0-200 units | 12 Rs/kW/month | 245 P/kWh |
| | 201-400 units | 12 Rs/kW/month | 395 P/kWh |
| | Above 400units | 12 Rs/kW/month | 465 P/kWh |
| 1.3 | **Domestic Lighting/Fan and Power on 11kV single delivery point for CGHS and other similar group housing complexes** [2] | | |
| | First 44.4% | 12 Rs/kW/month | 245 P/kWh |
| | Next 44.4% | 12 Rs/kW/month | 395 P/kWh |
| | Next 11.2% | 12 Rs/kW/month | 465 P/kWh |
| 1.4 | **Domestic Lighting/ Fan and Power Connections in Left Out Pockets and Villages, both Electrified and Un-electrified for plot sizes** | | |
| | Upto 50 sq yards | 264 Rs/month | |
| | Between 51-100 sq yards | 384 Rs/month | |
| | Between 101-150 sq yards | 504 Rs/month | |
| | Between 151-200 sq yards | 699 Rs/month | |
| | More than 200 sq yds. only through installation of meters by licensee | As applicable for relevant category | As applicable for relevant category |
| | | | |
| **2** | **Non-Domestic** | | |
| 2.1.1 | **Non-Domestic (Low Tension): NDLT-I** | | |
| | Up to 10 kW | 50 Rs/kW/month | 540 P/kWh |
| | > 10 kW to 100 kW | 50 Rs/kW/month | 492 P/kVAh |
| 2.1.2 | **Non-Domestic Light/ Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II** | 50 Rs/kW/month | 492 P/kVAh [3] |
| 2.2 | **Mixed Load (High tension) >100 kW - MLHT** | | |
| | Supply on 33 kV and above | 150 Rs/kVA/month | 495 P/kVAh [4] |
| | Supply on 11 kV | 150 Rs/kVA/month | 495 P/kVAh [4] |

| | Category | Fixed/Demand Charges [1] | Energy Charges |
|---|---|---|---|
| | Supply on LT (400 Volts) | 200 Rs/kVA/month | 569 P/kVAh |
| | | | |
| **3** | **Industrial** | | |
| 3.1.1 | Small Industrial Power (SIP) < 100 kW | | |
| | Upto 10kW | 50 Rs/kW/month | 505 P/kWh |
| | >10 to 100kW | 50 Rs/kW/month | 440 P/kVAh |
| 3.1.2 | Industrial Power (SIP) on 11 kV Single Delivery Point for Group of SIP Consumers | 50 Rs/kW/month | 375 P/kVAh |
| 3.2 | Large Industrial Power > 100 kW (LIP) | | |
| | Supply on 33 kV and above | 150 Rs/kVA/month | 435 P/kVAh[4] |
| | Supply on 11 kV | 150 Rs/kVA/month | 435 P/kVAh[4] |
| | Supply on LT (400 Volts) | 200 Rs/kVA/month | 500 P/kVAh |
| | | | |
| **4** | **Agriculture** | 12 Rs/kW/month | 155 P/kWh |
| | | | |
| **5** | **Mushroom Cultivation** | 24 Rs/kW/month | 305 P/kWh |
| | | | |
| **6** | **Public Lighting** | | |
| 6.1 | Street Lighting | 73 Rs/ Light point/month (Maintenance Charges) | 465 P/kWh |
| 6.2 | Signals & Blinkers | - | 465 P/kWh |
| | | | |
| **7** | **Railway Traction (Other than DMRC)[5]** | 150 Rs/kVA/month | 380 P/kVAh[4] |
| | | | |
| **8** | **Delhi Metro Rail Corporation (DMRC)** | | |
| a | DMRC (220 kV) | 75 Rs/kVA/month | 300 P/kVAh |
| b | DMRC (66 kV) | 75 Rs/kVA/month | 300 P/kVAh |
| | | | |
| **9** | **Temporary Supply** | | |
| 9.1 | For a total period of | | |
| a | Less than 16 days | 50% of the relevant category | higher by 30% (temporary surcharge) of the relevant category of tariff |
| b | More than or equal to 16 days | same as that of relevant category | higher by 30% (temporary surcharge) of the relevant category of tariff |
| 9.2 | For residential cooperative group housing connections | Same as that of relevant category | domestic tariff without any temporary surcharge[6] |
| 9.3 | For religious functions of traditional and established characters and cultural activities | Same as 1.2 | Same as 1.2 without temporary surcharge |
| 9.4 | For major construction projects | Same as that of | Same as that of relevant |

| | Category | Fixed/Demand Charges [1] | Energy Charges |
|---|---|---|---|
| | | relevant category | category with temporary surcharge of 30% |
| 9.5 | For threshers | | |
| a | During the threshing season for 30 days | Electricity Tax of MCD : Rs 150 per connection | Flat rate of Rs 3,000 |
| b | For extended period | | On pro-rata basis for each week or part thereof |

Notes of Superscripts:

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[1] For all categories other than Domestic, Fixed/Demand charges are to be levied on sanctioned load or MDI reading, whichever is higher, on per kW or part thereof basis. Where the MDI reading exceeds sanctioned load, a surcharge of 30% shall be levied on the fixed/demand charges corresponding to excess demand in kW for such billing cycle only.

[2] In case of co-operative group housing societies having independent connection for common facilities through separate meter, energy charges shall be billed at highest slab tariff for domestic category. Rebate of 15% in energy charges is admissible on notified tariff

[3] Rebate of 15% in energy charges is admissible on notified tariff.

[4] Additional rebate of 2.5% on the energy charges on 11 kV rates for availing supply at 33/66 kV and 4% for supply at 220 kV shall be admissible.

[5] Tariffs for Northern Railways Traction are Based on the supply being given through a single delivery and metering point at single voltage. An additional capacity blockage charges are also applicable to be calculated as Rs 1260 x (2.97A + 5) where A is contract/maximum demand, whichever is higher, in MVA subject to a minimum of Rs 25000.

[6] From the date of payment of their payable share in full towards electrification cost. Normal tariff available after one year.

## Other Terms and Conditions of the Tariff

| | Category | Availability | Character of Service |
|---|---|---|---|
| **1. Domestic** | 1.1 Domestic Lighting/Fan and Power (Single Delivery Point and Separate Delivery Points/Meters) | A) Available to following categories of consumers:<br>Residential consumers<br>Hostels of recognized/aided institutions of Municipal Corporation of Delhi or Govt. of the NCT of Delhi.<br>Staircase lighting in residential flats separately metered.<br>Compound lighting, lifts and water pumps etc., for drinking water supply and fire fighting equipment in residential complexes.<br>In cooperative group housing societies etc. for bonafide use of lighting/fan and power, subject to the provision that the supply is at single delivery point for combined lighting/fan & power.<br><br>B) It is also available to following consumers.<br>Dispensary/Hospitals/Public Libraries/School/ College/Working Women's Hostel/Orphanage/Charitable homes run by the Municipal Corporation of Delhi or the Government of the NCT of Delhi.<br>Small Health Centers approved by the Department of Health, Government of NCT of Delhi for providing Charitable Services only.<br>Recognized Centers for welfare of blind, deaf and dumb, spastic children, physically handicapped persons as approved by the Government of NCT of Delhi.<br>Places of worship.<br>Cheshire homes/orphanage.<br>Electric crematoriums.<br>Professionals like architects, engineers, doctors, lawyers, chartered accountants may utilize up to 25% of the covered area of residential space in their possession, up to a maximum of 50 square meters, for carrying out professional work in the nature of consultancy without attracting non-domestic tariff for the electricity consumed provided that these requirement are complied with.<br><br>C) Where separate meters, under different K. Nos., for domestic lighting/fan and domestic power, are | AC 50 Hz, single phase, 230 Volts for load upto 10 kW &<br>AC 50 Hz, three phase, 400 Volts for loads beyond 10 kW |

| | Category | Availability | Character of Service |
|---|---|---|---|
| | | in existence at the same premises, the billing shall be done under domestic category for total consumption of all such connections/meters taken together.<br><br>D) Available, for loads upto 21 kW, to farm houses for bonafide domestic self use and bounded farm houses having minimum 50% of the total land for agriculture/vegetable cultivation.<br><br>E) The consumers running small commercial establishments from their households in JJ Clusters shall be charged domestic tariff provided that the total consumption of electricity in a month does not exceed 200 units. | |
| | 1.2 Domestic Lighting /Fan And Power on 11 kV single delivery point | Same as 1.1(A) and for CGHS flats and loads above 100 kW in case of individual | AC 50 Hz, three phase, 11 kV; on single delivery point |
| | 1.3 Domestic Lighting/Fan And Power Connections In Regularised/ Unauthorised Colonies, Left Out Pockets and Villages both Electrified and Unelectrified | Available to residential consumers for temporary electricity connection on single phase system of supply. As and when licensee installs energy meters, the energy charges shall be payable as per the tariff applicable to relevant category of supply. | AC 50 Hz, single phase, 230 Volts |
| **2. Non-Domestic** | 2.1.1 Non-Domestic (Low Tension) – NDLT-I | Available to all consumers having load (other than the industrial load) upto 100 kW for lighting, fan & heating/cooling power appliances in all non-domestic establishments as defined below:<br>Hostels (other than those recognized/aided institutions of Municipal Corporation of Delhi or Govt. of the NCT of Delhi)<br>Schools/colleges (Other than those run by Municipal Corporation of Delhi or the Government of NCT of Delhi)<br>Auditoriums<br>Hospitals, nursing homes/diagnostic centers other than those run by Municipal Corporation of Delhi or the Govt. of NCT of Delhi.<br>Railways (other than traction)<br>Hotels and restaurants<br>Cinemas<br>Banks<br>Petrol pumps | AC 50 Hz, single phase, 230 Volts up to 10 kW load;<br>AC 50 Hz, 3 phase, 400 Volts for loads above 10 kW and upto 100 kW |

| | Category | Availability | Character of Service |
|---|---|---|---|
| | | All other establishments, i.e., shops, chemists, tailors, washing, dyeing etc. which do not come under the Factories Act.<br>Cattle farms, fisheries, piggeries, poultry farms, floriculture, horticulture, plant nursery<br>Farm houses being used for commercial activity<br>DMRC for its commercial activities other than traction.<br>Ice-cream parlours and<br>Any other category of commercial consumers not specified/covered in any other category in this Schedule | |
| | 2.1.2 Non-Domestic Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II | Available to commercial complexes having load more than 100kW for group of consumers for their lighting, fan, heating/cooling power appliances for non-domestic use. | AC 50 Hz, 3 phase, 11 kV |
| | 2.2 Mixed Load (High Tension)-MLHT<br>a) Supply on 11 kV<br>b) Supply on LT (400 Volts) | Available to consumers having load (other than industrial load) above 100 kW for lighting, fan, heating/cooling and power appliances in Domestic/Non-Domestic establishments including pumping loads of Delhi Jal Board /DDA/MCD and supply to Delhi Metro Rail Corporation (DMRC) Ltd. for their on going construction projects etc and for commercial purposes other than traction. Supply at extra high voltage (33 kV and more) may also be given. | AC 50 Hz, 3 phase, 11 kV;<br>AC 50 Hz, 3 phase, 400 Volts |
| | 2.1.2 Non-Domestic Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II | Available to commercial complexes having load more than 100kW for group of consumers for their lighting, fan, heating/cooling power appliances for non-domestic use. | AC 50 Hz, 3 phase, 11 kV |
| **3. Industrial** | 3.1.1 Small Industrial Power (SIP) | Available to Industrial consumers with load up to 100 kW including lighting, heating and cooling load. | AC 50 Hz, single phase, 230 Volts;<br>AC 50 Hz, 3 phase, 400 Volts |
| | 3.1.2 Industrial Power (SIP) on 11 kV Single Delivery Point for Group of SIP Consumers | On single delivery point for group of SIP consumers provided load of any individual consumer does not exceed 100 kW | AC 50 Hz, 3 Phase, 11 kV |
| | 3.2 Large Industrial Power (LIP)<br>a) Supply on 11 kV<br>b) Supply on LT (400 Volts) | Available as primary power to large industrial consumers having load above 100 kW including lighting load. Supply at extra high voltage (33 kV and more) may also be given | AC 50 Hz, 3 phase, 11 kV;<br>AC 50 Hz, 3 Phase, 400 Volts |
| **4. Agriculture** | | Available for load up to 10 kW for tube wells for irrigation, threshing, and kutti-cuting in | AC 50 Hz, Single / Three Phase, |

| | Category | Availability | Character of Service |
|---|---|---|---|
| | | conjunction with pumping load for irrigation purposes and lighting load for bonafide use in Kothra. | 230/400 Volts |
| **5. Mushroom cultivation** | | Available for mushroom growing/cultivation upto 100 kW. | AC 50 Hz, 3 Phase, 400 Volts up to 100 kW |
| **6. Public Lighting** | 6.1 Street lighting | Available to all street lighting consumers including MCD, DDA, PWD/CPWD, Slums department/DSIDC/MES/CGHS etc. | AC 50 Hz, Single /three Phase, 230/400 Volts |
| | 6.2 Signals & Blinkers | Available for traffic signals and blinkers of Traffic Police | AC 50 Hz, Single Phase, 230 Volts |
| **7. Railway Traction (other than DMRC)** | | Available for railway traction for connected load above 100 kW. | AC 50 Hz, Three phase, 220/66/33 kV |
| **8. Delhi Metro Rail Corporation** | | Available to Delhi Metro Rail Corporation (DMRC) (not for construction projects) | AC 50 Hz, 3 phase, 220/66/33 kV |
| **9.Temporary Supply** | 9.1(a) for less than 16 days | Available as temporary connection under the respective category | AC 50 Hz, single phase, 230 Volts; AC 50 Hz, 3 phase, 400 Volts; AC 50 Hz, three phase, 11 kV |
| | 9.1(b) for more than or equal to 16 days | | |
| | 9.2 for residential cooperative group housing connections | Same as that of relevant category | |
| | 9.3 for religious functions of traditional and established characters and cultural activities | Provided for religious functions of traditional and established characters like Ram lila, Dussehra, Janmashtami, Nirankari Sant Smagam, Gurupurb, Durga Puja, Id, Christmas celebrations, Easter, Pageants and cultural activities like NCC camps, scouts & guides camps etc. (normally for a period less than 10 days). | |
| | 9.4 for major construction projects | With loads more than 10 kW | |
| | 9.5 for threshers | During the threshing season | |

## Electricity taxes and other levies

5.91 The rates stipulated in the Schedule are exclusive of electricity tax and other taxes and charges, as levied from time to time by the Government or any other competent authority, which are payable extra.

## Surcharges

5.92 All surcharges shall be levied on the basic tariff applicable to the category of use or category of sanction, whichever has higher tariff.

**Payments**

5.93 In the event of the electricity bill rendered by the licensee, not being paid in full within the time specified on the bill, a surcharge @ 1.5% on the principal amount of bill which has not been paid shall be levied for each 30 days successive period or part thereof until the payment is made in full without prejudice to the right of the licensee to disconnect the supply after due date in the event of non-payment in accordance with section 56 of Electricity Act, 2003. This will also apply to temporary connections, where payment of final bill amount after adjustment of consumption deposit, is not made by due date.

5.94 The Commission directs the Petitioner, that in case the bill for consumption of electricity is more than Rs. 4,000, payment for the bill shall only be accepted by the Petitioner by means of an Account Payee cheque/DD.

**Billing/ Billing Format**

5.95 The Commission directs the Petitioner to bill the consumers using Wheeling Tariff, Retail Supply charge and Supply Margin charge instead of the existing practice of billing the consumers on energy charges. The break-up of energy charges into Wheeling tariff, Retail Supply charge and Supply Margin charge for the respective consumer categories has been provided in the section below.

5.96 Wherever the Wheeling Tariff, Retail Supply charge and Supply Margin charge are specified in Paisa per kVAh, for the purpose of billing the kVAh as read from the meter shall be used.

**Interpretation/clarification**

5.97 In case of doubt or anomaly, if any, in the applicability of tariff or in any other respect, the matter will be referred to the Commission and Commission's decision thereon shall be final and binding.

## Break up of Approved Energy Charges for BYPL for FY09

| | Category | Wheeling | Supply Margin Charge | Retail Supply Charge |
|---|---|---|---|---|
| **1** | **Domestic** | | | |
| 1.1 | **JJ Clusters** | | | |
| 1.2 | **Domestic Lighting/ Fan and Power** | | | |
| | **Upto 2 kW Load** | | | |
| | 0-200 units | 71 P/kWh | 25 P/kWh | 149 P/kWh |
| | 200-400 units | 71 P/kWh | 25 P/kWh | 299 P/kWh |
| | Above 400units | 71 P/kWh | 25 P/kWh | 369 P/kWh |
| | **2 to 5 kW Load** | | | |
| | 0-200 units | 71 P/kWh | 25 P/kWh | 149 P/kWh |
| | 200-400 units | 71 P/kWh | 25 P/kWh | 299 P/kWh |
| | Above 400units | 71 P/kWh | 25 P/kWh | 369 P/kWh |
| | **Above 5 kW Load** | | | |
| | 0-200 units | 71 P/kWh | 25 P/kWh | 149 P/kWh |
| | 200-400 units | 71 P/kWh | 25 P/kWh | 299 P/kWh |
| | Above 400units | 71 P/kWh | 25 P/kWh | 369 P/kWh |
| 1.3 | **Domestic Lighting/Fan And Power on 11kV single delivery point for CGHS and other similar group housing complexes** | | | |
| | First 44.4% | 38 P/kWh | 25 P/kWh | 182 P/kWh |
| | Next 44.4% | 38 P/kWh | 25 P/kWh | 332 P/kWh |
| | Next 11.2% | 38 P/kWh | 25 P/kWh | 402 P/kWh |
| 1.4 | **Domestic Lighting/ Fan And Power Connections in Regularized/ Unauthorized Colonies, Left Out Pockets and Villages, both Electrified and Un-electrified Pockets** | | | |
| | Upto 50 sq yards | | | |
| | Between 51-100 sq yards | | | |
| | Between 101-150 sq yards | | | |
| | Between 151-200 sq yards | | | |
| | More than 200 sq yds. Only with meter | | | |
| | | | | |
| **2** | **Non-Domestic** | | | |
| 2.1.1 | **Non-Domestic (Low Tension): NDLT-I** | | | |
| | Up to 10 kW | 71 P/kWh | 25 P/kWh | 444 P/kWh |
| | > 10 kW to 100 kW | 62 P/kVAh | 22 P/kVAh | 408 P/kVAh |
| 2.1.2 | **Non-Domestic Light/ Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II** | 33 P/kVAh | 22 P/kVAh | 437 P/kVAh |
| 2.2 | **Mixed Load (High tension) >100 kW** | | | |
| | Supply on 33 kV and above | 8 P/kVAh | 22 P/kVAh | 465 P/kVAh |

| | Category | Wheeling | Supply Margin Charge | Retail Supply Charge |
|---|---|---|---|---|
| | Supply on 11 kV | 33 P/kVAh | 22 P/kVAh | 440 P/kVAh |
| | Supply on LT (400 Volts) | 62 P/kVAh | 22 P/kVAh | 485 P/kVAh |
| | | | | |
| **3** | **Industrial** | | | |
| 3.1.1 | **Small Industrial Power (SIP)** | | | |
| | Upto 10kW | 71 P/kWh | 25 P/kWh | 409 P/kWh |
| | >10-100kW | 62 P/kVAh | 22 P/kVAh | 356 P/kVAh |
| 3.1.1 | Industrial Power (SIP) on 11 kV Single Delivery Point for Group of SIP Consumers | 33 P/kVAh | 22 P/kVAh | 320 P/kVAh |
| 3.2 | Large Industrial Power > 100 kW LIP | | | |
| | Supply on 33 kV and above | 8 P/kVAh | 22 P/kVAh | 405 P/kVAh |
| | Supply on 11 kV | 33 P/kVAh | 22 P/kVAh | 380 P/kVAh |
| | Supply on LT (400 Volts) | 62 P/kVAh | 22 P/kVAh | 416 P/kVAh |
| | | | | |
| **4** | **Agriculture** | 71 P/kWh | 25 P/kWh | 59 P/kWh |
| | | | | |
| **5** | **Mushroom Cultivation** | 71 P/kWh | 25 P/kWh | 209 P/kWh |
| | | | | |
| **6** | **Public Lighting** | | | |
| 6.1 | Street Lighting | 71 P/kWh | 25 P/kWh | 369 P/kWh |
| 6.2 | Signals& Blinkers | 71 P/kWh | 25 P/kWh | 369 P/kWh |
| | | | | |
| **7** | **Railway Traction (Other than DMRC)** | 8 P/kVAh | 22 P/kVAh | 350 P/kVAh |
| | | | | |
| **8** | **DMRC** | | | |
| a | DMRC (220 kV) | - | 22 P/kVAh | 278 P/kVAh |
| b | DMRC (66 kV) | 8 P/kVAh | 22 P/kVAh | 270 P/kVAh |
| | | | | |