

## **1. Background, Procedural History and Description of ARR Filing**

### **1.1 About the Commission**

The Delhi Electricity Regulatory Commission (hereinafter referred to as 'Commission') was constituted by the Government of National Capital Territory of Delhi (hereinafter referred to as 'Government') on March 3, 1999 and it became operational from December 10, 1999.

#### **1.1.1 Functions of the Commission**

Major functions assigned to the Commission under the Delhi Electricity Reforms Act 2000 (hereinafter referred to as 'DERA') are as follows:

- to determine the tariff for electricity, wholesale, bulk, grid or retail and for the use of the transmission facilities
- to regulate power purchase, transmission, distribution, sale and supply
- to promote competition, efficiency and economy in the activities of the electricity industry in the National Capital Territory of Delhi
- to aid and advise the Government on power policy
- to collect and publish data and forecasts
- to regulate the assets and properties so as to safeguard the public interest
- to issue licenses for transmission, bulk supply, distribution or supply of electricity
- to regulate the working of the licensees
- to adjudicate upon the disputes and differences between licensees

#### **1.1.2 Issuance of Concept Paper on Tariff and Guidelines for Revenue and Tariff Filing**

##### **1.1.2.1 Concept Paper on Tariff**

The Commission brought out a Concept Paper on Tariff in September 2000. The Concept Paper provided a historical background of the power sector in Delhi gave the first tariff proposal of Delhi Vidyut Board (hereinafter referred to as 'DVB') and sought suggestions from various stakeholders on the conceptual issues on electricity tariff.

##### **1.1.2.2 Guidelines for Revenue and Tariff Filing**

The Commission sent 'Guidelines for Revenue and Tariff Filing' to the Delhi Vidyut Board in October 2000 for submission of their Annual Revenue Requirement and Tariff petitions. It contained about 29 data forms with guidelines to get data from utilities.

#### **1.1.3 Regulations and Orders issued by the Commission**

In its journey from inception till date, the Commission has issued seven Tariff Orders and notified nine Regulations as given in Tables 1.1 and 1.2, respectively. The Orders were issued after following

the due process and all stakeholders were given an opportunity to present their viewpoints. (Draft Regulations under EA 2003)

**Table 1.1: Orders issued by the Commission**

Sr. No.	Name of the Order	Date of issue
1.	Order on Rationalization of Tariff for Delhi Vidyut Board (DVB)	16.1.2001
2.	Order on ARR for 2001-02 and Tariff Determination Principles for 2002-03 till 2005-06 for Delhi Vidyut Board	23.5.2001
3.	Order on Joint Petition for Determination BST and Opening Losses for DISCOMS	22.2.2002
4.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04 ) and determination of Retail supply tariffs for BSES – Yamuna Power Limited	26.06.2003
5.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04 ) and determination of Retail supply tariffs for BSES – Rajdhani Power Limited	26.06.2003
6.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04 ) and determination of Retail supply tariffs for BSES – New Delhi Power Limited	26.06.2003
7.	Order on ARR for July 2003 to March 2004 (9 months and Financial Year 2003-04 ) and determination of Bulk supply tariffs for Delhi TRANSCO Limited	26.06.2003

**Table 1.2: Regulations notified by the Commission**

Sr. No.	Title of Regulations	Date of Notification
1.	Delhi Electricity Regulatory Commission Comprehensive (Conduct of Business) Regulations, 2001	9-3-2001
2.	Delhi Electricity Regulatory Commission (Management and Development of Human Resources) Regulations, 2001	16-4-2001
3.	Delhi Electricity Regulatory Commission (Appointment of Consultants) Regulations, 2001	6-8-2001
4.	Delhi Electricity Regulatory Commission (Delegation of Financial Powers) Regulations, 2001	6-8-2001
5.	Delhi Electricity Regulatory Commission (Grant of Consent for Captive Power Plants) Regulations, 2002	21-4-2002
6.	Delhi Electricity Regulatory Commission (Performance Standards – Metering & Billing) Regulations, 2002	19-8-2002
7.	Delhi Electricity Regulatory Commission (Medical Attendance) Regulations, 2003	12-3-2003
8.	Delhi Electricity Regulatory Commission (Redressal of Consumers' Grievances) Regulations, 2003	10-6-2003
9.	Delhi Electricity Regulatory Commission (Guidelines for establishment of Forum for redressal of grievances of the consumer and Ombudsman) Regulations, 2003	11-3-2004

#### 1.1.4 Constitution of Commission Advisory Committee

The Commission has constituted the Commission Advisory Committee, vide notification dated March 27, 2003, to advise the Commission on major questions of policy related to electricity industry in the State and on matters such as quality of supply, continuity and extent of service

provided by licensees and compliance by licensees with the conditions and requirements of their licences.

## **1.2 Background**

### **1.2.1 Transfer Scheme**

Pursuant to the provisions of the Act, the Government notified the Delhi Electricity Reform (Transfer Scheme) Rules, 2001 (hereinafter referred to as 'Transfer Scheme') on November 20, 2001. The Transfer Scheme provided for unbundling of the functions of Delhi Vidyut Board (hereinafter referred to as "DVB") and the transfer of existing transmission assets of DVB to Delhi Transco Limited (formerly known as Delhi Power Supply Company Limited and hereinafter referred to as 'TRANSCO') and the existing distribution assets to three Distribution Companies (hereinafter collectively referred to as 'DISCOMs').

### **1.2.2 Policy Directions**

#### **1.2.2.1 Notification of Policy Directions**

In exercise of powers conferred by Section 12 and other applicable provisions of the DERA, the Government issued Policy Directions vide Notification No F.11 (118)/2001-Power/2889 of November 22, 2001 and as amended on May 31, 2002 (hereinafter collectively referred to as "Policy Directions"). A copy of the Policy Directions is attached hereto as Annexure 1.

#### **1.2.2.2 AT&C loss as a measure of efficiency**

The Government, through the Policy Directions, indicated its intent to disinvest majority shareholding in the DISCOMs to private investors with the balance 49% remaining with the Government. The Policy Directions identified the Aggregate Technical & Commercial (AT&C) losses as the measure of efficiency of the Distribution business. It further indicated that a long-term definitive loss reduction in distribution, to be achieved over a five-year period, should be settled upfront through competitive bidding to induce investors. In this regard, the Government invited the investors to submit bids for AT&C losses, which they could reduce each year for the years 2002-03 till 2006-07. However, prior to the submission of bids by investors, the Commission was required to determine the base AT&C loss levels for each DISCOM through an Order, which were to be the opening levels of AT&C losses for the purposes of bidding.

#### **1.2.2.3 Framework for tariff determination**

The Policy Directions indicated that the AT&C loss for the purpose of tariff computation by the Commission for each DISCOM in a year shall be the opening AT&C loss and the reduction proposed for the year in the bid submitted by the investor selected by the Government for purchase of 51% equity in the Distribution Company. Further, tariffs are to be determined such that the DISCOMs recover all expenses permitted by the Commission and earn a 16% return on equity.

The Policy Directions envisaged identical retail tariffs for the DISCOMs till the end of 2006-07. An amount of approximately Rs. 3450 Crore was committed by the Government in the Policy Directions, as a loan to be disbursed to the Transmission Company, to bridge the gap between the revenue requirement of the TRANSCO and the bulk supply price that it may receive from the distribution licensees based on the above framework.

### **1.2.3 Determination of BST and Opening Losses**

The Order on opening loss levels, to be passed by the Commission, as discussed in Para 1.2.2.2 was also required to determine the Bulk Supply Tariff (BST) applicable to each of the DISCOMs to apprise the investors of the various cost and revenue elements required in the determination of tariff.

#### **1.2.3.1 Filing of Joint Petition, BST Order and submission of bids**

A joint petition was subsequently filed by the TRANSCO and the three DISCOMs on December 21, 2001 for the determination of Bulk Supply Tariff for the period till March 31, 2002 and opening level of AT&C Losses for the DISCOMs. The Commission, after detailed analysis of the Petition and supporting information submitted by the Petitioners and after due consideration of the responses received from the various stakeholders and Policy Directions, issued an Order on Bulk Supply Tariff and Opening Level of AT&C Losses for the three DISCOMs on February 22, 2002.

Thereafter, the investors submitted the bids. After evaluation of the bids, the Government awarded 51% of the equity of the DISCOMs to the chosen private investors.

### **1.2.4 Effective date of Transfer Scheme**

The Transfer Scheme was made effective by the Government from July 1, 2002 onwards and from this date, the Petitioner formally took over the distribution assets of DVB (as defined in the Transfer Scheme) and became authorized to commence electricity distribution and retail supply business in the specified area as the South West Delhi Electricity Distribution Company Limited (SWDEDCL) (as defined in the Transfer Scheme).

### **1.2.5 Revision of Guidelines by the Commission**

The Commission, in the meanwhile, revised the existing Guidelines for Revenue & Tariff Filing (Guidelines) to accommodate the Policy Direction framework envisaged by the Government. The revised guidelines were issued by the Commission on August 23, 2002.

The revised guidelines recognised the Sixth Schedule of the Electricity Supply Act, 1948 as amended from time to time, as the framework applicable to the TRANSCO for filing of its Annual Revenue Requirement (ARR). The framework envisaged by the Policy Directions was made applicable to the DISCOMs for ARR filing purposes. The existing data formats were accordingly modified.

These guidelines also required TRANSCO to play a lead role in facilitating a common agreement between the TRANSCO and the DISCOMs in regard to the energy supply-demand position in the State for the current and the ensuing year. This was important to ensure emergence of an overall revenue gap/surplus for all the Companies from the individual filings, based on a common expectation regarding the DISCOM's demand and supply requirement for the period. The co-ordination was also required to be done well in advance of the deadline set for submission of petitions to the Commission.

#### **1.2.6 ARR and Tariff Determination for FY 2002-03 and 2003-04**

During the months of November and December 2002, the Transmission Company and three Distribution Companies filed their ARR and Tariff Petitions for the nine months of 2002-03 (July 2002 to March 2003) and for FY 2003-04. The Commission had a series of discussions with the TRANSCO and three DISCOMs wherein the Commission sought additional information, clarifications and justifications on various issues critical for admissibility of the Petitions. Subsequently, the Petitioners submitted the information and justifications. However, considering the series of submissions by the DISCOMs and the passage of time, the Commission directed the DISCOMs to file Consolidated ARR Petitions for the nine-month period of FY 2002-03 and FY 2003-04. The DISCOMs filed the Consolidated Petitions during the first week of March 2003. The Commission admitted the Petition of TRANSCO and the Petitions of DISCOMs for further processing on March 6, 2003.

The Commission brought out a Public Notice on March 7, 2003 indicating the salient features of the Petitions and invited responses from the consumers and other stakeholders on the Petitions. However, the Commission did not receive adequate responses on the Petitions due to the fact that the Petitioners did not file a Tariff Petition and due to low awareness and appreciation of the tariff determination process based on the framework specified by the Government's Policy Directions. Due to the low response on the Petitions, the Commission made a presentation to select stakeholders and briefed them about the unbundling and privatisation process followed by the Government, the Policy Directions framework, the salient features of the Petitions, and the importance of the ARR Petitions for the tariffs to be approved by the Commission. The Commission sought responses from the participants on the ARR Petitions as well as suggestions on other related areas including tariff rationalization.

The Commission also brought out a public notice on April 11, 2003 and sought further suggestions/responses from the general public on other related areas of concern to the consumers including rationalization of tariff categories/sub-categories, tariff structure amendment, and other charges levied as per provisions of the Tariff Schedule. The Commission received a total of 78 responses from the various stakeholders. The Commission conducted the Public Hearings on the May 12, 13 and 14, 2003 in five different sessions. Subsequently, the Commission held discussions with the Petitioners and obtained the details of actual expenses, revenue and losses for the nine-month period of FY 2002-03 (July 2002 to March 2003).

The Commission, based on the detailed scrutiny of the Petitions and additional information/clarifications submitted by the Petitioners and after following the due public process, issued its Orders on the ARR and Tariff Petitions of TRANSCO and DISCOMs for FY 2002-03 (9 months) and FY 2003-04 on June 26, 2003.

### **1.2.7 Enactment of Electricity Act 2003**

The Electricity Act 2003 (EA 2003), enacted in June 2003 repealed the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. It provides for increased competition in the sector by facilitating open access (permission to use the existing power transfer facilities) for transmission and distribution, power trading, and also allows setting up of captive power plants without any restriction.

The Commission has examined the applicability of DERA and Policy Directions issued by the GNCTD subsequent to the enactment of the EA 2003. The Sections 185 (3) and 185 (2) (e) of the EA 2003 are the relevant Sections dealing with the applicability of the Delhi Electricity Reforms Act 2000 and the Policy Directions issued by the GNCTD under the provisions of DERA.

Section 185 (3) of the EA 2003 states that *"The provisions of the enactments specified in the Schedule, not inconsistent with the Provisions of this Act, shall apply to the States in which such enactments are applicable"*. The Delhi Electricity Reforms Act, 2000 has been listed under this proviso at Sl.No. 7 of the Schedule of EA 2003.

Further, Section 185 (2)(e) of the EA 2003 states that *"all directives issued, before the commencement of this Act, by a State Government under the enactments specified in the Schedule shall continue to apply for the period for which such directives were issued by the State Government"*.

From these two provisions of EA 2003, it can be interpreted that the provisions of DERA 2000 which are not inconsistent with the provisions of EA 2003 shall still be applicable to the State of Delhi and the Policy Directions issued by the GNCTD under the provisions of DERA shall be applicable till the period of Policy Directions i.e. 2006-07. The Commission, while analysing the Petitions and while issuing this Order has duly considered these provisions of the EA 2003 and has dealt with the matters accordingly.

### **Procedure envisaged in the EA 2003 for Tariff Order**

Section 64 of the EA 2003 specifies the procedure to be followed for issuance of a tariff order. Sub-sections (1) and (3) of this Section of EA 2003 state as follows:

Sub-section (1): *"An application for determination of tariff under section 62 shall be made by a generating company or licensee in such manner and accompanied by such fee, as may be determined by regulations"*.

Subsection (3): "The Appropriate Commission, shall within one hundred and twenty days from receipt of application under sub-section (1) and after considering all suggestions and objections received from the public:

(a) issue a tariff order accepting the application with such modifications or such conditions as may be specified in that order:

(b) reject the application for reasons to be recorded in writing if such application is not in accordance with the provisions of this ACT and the rules and regulations made there under of the provisions of any other law for the time being in force:

Provided that an applicant shall be given a reasonable opportunity of being heard before rejecting his application."

### **1.3 Procedural History**

#### **1.3.1 ARR & Tariff filing by the Companies for FY 2004-05**

##### **1.3.1.1 Filing of petitions**

The TRANSCO, Indraprastha Power Generation Company Limited (IPGCL) and Pragati Power Corporation Limited (PPCL) filed their Petitions for approval of ARR and determination of Tariffs for FY 2004-05, on December 2, 2003.

The Policy Directions envisage uniform retail tariffs across the DISCOMs and tariffs have to be determined so as to allow the DISCOMs to recover all permissible expenses and return for the year. This implies that the BST for the DISCOMs for a period cannot be determined in isolation for TRANSCO and further, one would have to take cognisance of the ARRs of the DISCOMs for further processing.

The Commission, therefore, directed the DISCOMs to file their respective ARR & Tariff Petitions for FY 2004-05. Thereafter, the Petitioner, BSES Rajdhani Power Limited (BRPL) filed its petition for ARR approval and determination of Retail Supply Tariff (RST) for FY 2004-05 on December 26, 2003. The other two DISCOMs, i.e., BSES Yamuna Power Limited (BYPL) and North Delhi Power Limited (NDPL) filed their ARR and Tariff Petition for determination of Retail Supply Tariff for FY 2004-05 on December 26, 2003 and December 17, 2003 respectively.

The Petitioner, in its Petition, has projected a Revenue Gap of Rs. 560 Crore for FY 2004-05 and did not propose any revision in the retail tariff. The Petitioner has requested the Commission to determine its tariff, taking into account the provisions of the Transfer Scheme, the Policy Directions issued by the Government and filings made thereunder. The Petitioner, in its Petition, has also suggested certain tariff rationalization measures for the consideration of the Commission.

### **1.3.1.2 Interactions with the Petitioner**

The submissions of the filings were followed by a series of interactions, both written and oral, wherein the Commission sought additional information/clarification and justifications on various issues, critical for admissibility of the petitions. The Petitioner submitted its response on the issues raised through separate submissions on January 16, 2004.

The other Distribution Companies, TRANSCO, IPGCL and PPCL also provided similar information and clarifications on the issues raised in respect of their filings, on various occasions. The Commission admitted the Petitions for further processing on January 16, 2004.

### **1.3.2 Public Notice and response from stakeholders**

#### **1.3.2.1 Publicity given to the Proposal**

The Commission brought out a Public Notice on January 17, 2004 indicating the salient features of the Petitions for FY 2004-05, and to invite responses from the consumers and other stakeholders on the Petitions submitted by NDPL, BRPL, BYPL, TRANSCO, IPGCL and PPCL, in accordance with the provisions of the Delhi Electricity Regulatory Commission Comprehensive (Conduct of Business) Regulations, 2001. The Public Notice was published in several dailies such as:

The Hindustan Times, The Times of India, and The Economic Times in English; Punjab Kesri, Navbharat Times, in Hindi; and Daily Milap in Urdu.

A copy of the Public Notice in English, Hindi and Urdu is attached as Annexure 2a-1, 2a-2 and 2a-3 respectively.

A detailed copy of the Petition of each Petitioner was also made available for purchase from the respective head-office of the Companies on any working day from January 19, 2004 onwards, between 11 a.m. to 4 p.m. on payment of Rs. 100/-. The Notice specified the deadline of February 17, 2004 for the receipt of responses/objections from the stakeholders. The complete copy of the Petitions was also put up on the website of the Commission, as well as that of the Petitioners.

#### **1.3.2.2 Public notice on Tariff Rationalization measures**

The Commission also published a Public Notice requesting public response on the issues related to Tariff Rationalisation. The Public Notice indicated salient features of the suggestions made by the three DISCOMs on Tariff Rationalisation issues and other Tariff Rationalisation measures considered by the Commission. The Notice was published on February 14, 2004 in several dailies like:

The Economic Times and Indian Express in English  
Jansatta in Hindi.

The Notice specified the deadline of February 27, 2004 for the receipt of responses/objections from the stakeholders. The deadlines for submission of response on the ARR Petitions was also extended from February 17, 2004 to February 27, 2004 vide the same notice. A copy of the Public Notice for



extension of time limit and for comments on rationalisation of tariff in English and Hindi is attached as Annexure 2b-1, 2b-2.

### 1.3.3 Public Hearing

The Commission received 78 objections in all. Several objections were received after the deadline for submission of the responses. The Commission forwarded the objections to the Petitioner for submission of comments to the Commission with a copy to the respondent. A detailed list of the respondents is attached with this Order as Annexure 3a.

The Petitioner filed its responses to the comments/objections of the stakeholders by March 22, 2004. The Commission conducted the Public Hearings on the April 7, 8 and 10, 2004. All the stakeholders who had submitted responses/objections on the ARR Petitions were invited to express their views in the matter. A list of the respondents who participated in the Public Hearing process is attached with this Order as Annexure 3b. The entire proceeding was split across five different sessions catering to distinct groups of stakeholders as given in Table 1.3.

**Table 1.3: Dates of Public Hearing**

Date	Category
April 7, 2004 (Two Sessions)	Industrial Consumers and Associations
April 8, 2004 (Two Sessions)	Domestic, Co-operative Societies, NGO's and Commercial
April 10, 2004	Government Departments and Utilities

### 1.3.4 Post admission interactions

#### 1.3.4.1 Discussions during technical sessions and presentation by the Petitioner

After admission of the ARR Petition, the Commission held further technical sessions with the concerned staff of the Petitioner to seek additional information and clarifications. Subsequently, a meeting was held on February 27, 2004 to seek clarifications and additional information such as details of actual expenses and revenue upto January 2004, details of loan drawal, status of capital expenditure including scheme wise details and note on Voluntary Retirement Scheme (VRS). During the meeting, the Commission directed the Petitioner to submit the information by March 5, 2004. Subsequently, on April 12, 2004 the Commission directed the Petitioner to submit the Provisional Accounts for FY 2003-04 along with actual expenses and revenue for FY 2003-04.

The Commission also held a joint meeting with the top management of TRANSCO and DISCOMs on April 30, 2004. During the meeting, it was agreed that it is essential to adopt an integrated and co-ordinated approach between the TRANSCO and three DISCOMs for a pragmatic Capital Investment Plan. It was also discussed that proper coordination is required between TRANSCO and DISCOMs for energy input and load growth projections. Subsequent to the meeting, the TRANSCO

and DISCOMs were directed to submit the Revised Capital Expenditure Plan for FY 2004-05 including means of finance, cost benefit analysis and preparedness to execute these works and the revised energy input projections.

#### **1.3.4.2 Petitioner's responses to queries raised by the Commission**

On February 25, 2004, the Petitioner made a presentation to the Commission on the status of the Capital Investments proposed by the Company in its Petition for FY 2004-05. The responses to some of the queries raised during the meeting held on February 27, 2004, were submitted on March 22, 2004 and March 29, 2004. The information submitted by the Petitioners in these submissions pertained to details of Voluntary Retirement Scheme (VRS), Scheme-wise Capital Expenditure break-up, actual expenses, sales, revenue, capital expenditure, loans drawn upto the period of January 2004. Subsequently, on May 12, 2004, the Petitioner submitted the audited Annual Accounts for FY 2003-04 as adopted by the Board of Directors of the Company.

#### **1.3.4.3 Visits by the Commission**

In addition to the interactions with the Petitioner in the Commission's office, the Commission also undertook visits to the Petitioner's area on March 6, 2003 at some select locations to review the physical progress of the Capital Works and Repairs and Maintenance works. The findings of the visit to Petitioner's area are discussed in Section 3 of the Order.

An Activity Chart giving the details of various activities undertaken during the proceedings is attached as Annexure 4.

### **1.4 Summary of the petition**

The Petitioner has estimated the Annual Revenue Requirement (ARR) for FY 2004-05 at Rs. 2282Crore. The Petitioner, while estimating the ARR for FY 2004-05, in addition to the revenue gap for FY 2004-05 has also included certain elements of difference in expenses and revenue for FY 2002-03 and FY 2003-04 under the truing up mechanism. The total amount of truing up included in the ARR for FY 2004-05 is of the order of Rs. 232 Crore. A snapshot of the ARR and revenue gap at existing tariffs is provided in the Table 1.4.

**Table 1.4: Summary of ARR of the Petitioner**

Rs. Crore

Item	FY 2004-05
Power Purchase cost at existing BST	1281
Expenditure other than Power Purchase Cost	827
Allowable Return	133
<b>Past Arrears payable</b>	<b>41</b>
<b>Annual Revenue Requirement</b>	<b>2282</b>
Less: Non Tariff Income	17
<b>Aggregate Revenue Requirement (ARR)</b>	<b>2265</b>
Less: Estimated Revenue Realisation based on existing Retail Supply Tariff	1705
<b>Revenue Gap at Existing Tariff Including Revenue gap for 2003-04</b>	<b>560</b>

The Petitioner, in its ARR Petition, also suggested a tariff rationalization measure. The salient features of some the suggestions made by the Petitioner are summarized below:

- **Fixed Charges** - Increase recovery of fixed costs from fixed charges in proximity with fixed charges applicable in nearby states.
- **Billing Cycle** - Adoption of monthly billing cycle for all consumer categories commencing from 2004-05.
- **Tariff for DMRC** - Restrict applicability of special tariff of Rs. 2.30/kVAh at 220 kV and the tariff for supply at other voltages to DMRC should be same as that applicable to other similarly placed consumers at corresponding voltage level.
- **Introduction of a New Category** – Introduce a new tariff category for mixed commercial and residential use in the same premises at LT level, similar to Mixed Load High Tension (MLHT) category.
- **Low Power Factor Surcharge** – Modify the provisions of Low Power Factor Surcharge so that the consumer may be held liable for installation of adequate shunt capacitors for maintenance of the power factor prescribed by the Commission.

### 1.5 Layout of this Order

This Order is organised into 8 Chapters. While the current Chapter gives the information about the Commission, the historical background and summary of the Petition, the second Chapter gives a detailed account of responses from stakeholders, Petitioner's comments and Commission's views on the responses. Chapter 3 discusses the Annual Revenue Requirement. While Chapter 4 focuses on the Tariff Philosophy and Approach to bridge Revenue Gap, Chapter 5 deals with the Tariff Rationalisation Measures. Chapter 6 deals with Tariff Calculations. Chapter 6 also gives a comparison of Power Purchase Cost and Retail Supply Tariff in Delhi with neighbouring States and other States. Chapter 7 reviews the Directives issued to the Petitioner in the Commission's Order dated June 26, 2003 on the ARR and Tariff Petition filed by BRPL for FY 2002-03 and 2003-04 and also lists down the new directives issued in this Order. Chapter 8 gives the revised Tariff Schedule.



## **2. Response from Stakeholders**

The issues relevant to the said Petition have been dealt with in the following paragraphs:

These objections/responses mainly relate to Procedural Issues, Quality of Filing, Privatisation Policy and Reform Process, Policy Directions issued by the Government of NCT of Delhi, AT&C losses, ARR and Revenue Gap, Rationalisation of Tariffs, Conditions of Supply, etc. The scope of this Order is limited to covering the issues directly connected with or incidental to the Annual Revenue Requirement of the Licensees and the Tariffs.

### **2.1 Procedural Issues**

#### **2.1.1 Objections**

Federation of Group Housing Societies objected to the admission of the ARR Petitions of the Distribution Companies on the ground that if the ARR Petitions are admitted every year for review then DISCOMs would rely more on upward revision of tariff for earning their returns, rather than improving their own systems through rationalisation of their workforce, improvement of productivity by better utilisation of manpower through training, other cost cutting measures like better inventory control and reduction of indefensible T&D losses.

Mayurdhwaj Residents Welfare Association have argued that since no License has been issued to the Petitioner under the Electricity Act, 2003, the Petition is liable to be rejected.

'Energywatch' have lauded the pro-active efforts of the Commission in ensuring public participation in the entire process of Tariff determination.

#### **2.1.2 Response of the Petitioner**

The Petitioner submitted that it has filed the ARR Petition in accordance with the ARR/Tariff Guidelines issued by the Commission.

### **2.2 Quality of Filing and Additional Information**

#### **2.2.1 Objections**

Shri Rajan Gupta of Bharatiya Mazdoor Sangh has submitted that the Petitioner has filed incomplete, non-transparent and non-reliable estimates in the Petition. It has requested the Commission to obtain additional data from the Petitioner. The additional data asked for further scrutiny is as follows:

Copy of Minutes of Meeting and Resolutions of the Board of Directors approving the Annual Revenue Requirements of the Petitioner for FY 2004-05

Copy of the report of the Commission with regard to actual verification of the details and data of all the Petitioner and the methodology followed by the Commission towards actual verification of the data

Copy of the Commission's approval for implementing VRS

Shri. Rajan Gupta of Bharatiya Mazdoor Sangh has also asked for additional time to submit responses based on compliance by the Petitioners to the above issues.

India Defence Foundation have stated that the information and data provided by the Generation, Transmission and Distribution Licensees is not adequate to evaluate whether these Licensees are properly discharging their public duties and are alive to their responsibilities. The objector has requested the Commission to consider involving C&AG for the test audit to determine causes and responsibilities for any lapses in the systems of these Licensees. The objector has further requested that the state of affairs during erstwhile DVB days and status of improvement achieved after the privatisation should be shared with the public. It has further suggested that the Commission, before entertaining any claim for increase in Tariff or any projection of loss in revenue, or excessive expenditure, may compare the Business Plan of the Licensees with the projections made in the Business Plan at the time of privatisation.

India Defence Foundation have suggested that the following comparative data should be obtained to evaluate the performance of the Licensees:

Break up of expenditure per consumer

Labour and management share of the output of the Utility

Ratio and magnitude of direct labour to management staff including indirect labour, ratio of labour cost to management cost including advertisements and publicity

Capital to Output ratio, Output to Investment ratio, Labour to Output ratio, Labour to Capital ratio

Ratio of expenditure incurred in Indian Rupees to that incurred in foreign currency

Joint Committee of Residents Welfare Associations of Pitampura opined that there is lack of transparency in the accounts. The opinion stemmed out from reasons given by the Petitioners inability to provide data on meter rentals and penal charges, late payment charges, etc.

Mr. Anil Sood, Chetna stated during the public hearing process, that the data provided by the Petitioner conceals more than it reveals and requested the Commission to protect the consumers and direct the Petitioner to provide more information. The specific areas, which are mentioned by the Objector, are as follows:

The Petitioner has not made available the Fixed Asset Register, despite being given sufficient time by the Commission; the Petitioner has not disclosed the details relating to equipment in stores; the detailed list of assets does not match the specifications; and in many cases assets have been erected only on paper and do not exist on the ground.

Mayurdhwaj Residents Welfare Association prayed that the Annual Reports of the Petitioner for FY 2002-03 should not be accepted, since the Auditor has noted that the correct information has not been supplied to the Auditors. Moreover, since the audited figures of the DVB Assets prior to

privatisation have not been made public, the Commission should not accept the Annual Reports as correct.

### **2.2.2 Response of the Petitioner**

The Petitioner has submitted that it has filed the ARR as per the ARR/Tariff Guidelines of the Commission and the required information is included in the ARR Petition that was submitted to the Commission and made available to the general public.

## **2.3 Privatisation Policy and Reform Process**

### **2.3.1 Objections**

Some respondents have objected to the privatisation model and related parameters adopted by the Government of NCT of Delhi (GNCTD).

Mr. S. K. Aggarwal has stated that the Revenue Gap of Rs. 4,527 Crore includes the Reasonable Return of Rs. 368 Crore claimed by Delhi Transco Limited (TRANSCO) and the Distribution Companies. He has requested the Commission to provide an overview of the impact and financial performance of the private Distribution Companies over the past 2 years vis-à-vis the performance of the erstwhile DVB immediately preceding privatisation and highlight the overall impact of privatisation in its final Order. The financial performance of the system needs to be highlighted in terms of expenses incurred by the companies on various heads, cost of distribution per unit, loss reduction by each company (as against loss reduction as per bid), improvement in collection efficiency, improvement in power demand -supply scenario, investments made for overall improvement of the T&D networks by the companies and actual improvements achieved in the various performance indices vis-à-vis indices laid down by the Commission in its Grid Code.

Delhi Power Consumers' Guild has expressed its concerns that power sector reforms in Delhi are failing because they are based on the incorrect philosophy that all losses of the power utilities are due to theft of power by consumers. They have further mentioned that their study has revealed that the real cause is not the theft by consumers but subversion of the power supply system by the internal forces themselves or administrative lapses. They have requested for modification of the current reform processes in accordance with the ground realities so that it can serve some useful purpose.

India Defence Foundation expressed its displeasure with the state of affairs post privatisation and stated that the Licensees have not been ensuring any quality of service or guaranteeing efficient usage of resources or undertaking any cost cutting, except in reduction of manpower engaged in operation and maintenance. It has further stated that the licensees have been supplying interrupted power supply repeatedly and have not yet succeeded in developing properly functioning complaint handling systems and have been imposing heavy financial burdens on the consumer, who have no means of getting any corrective action or relief. In the rejoinder submitted before the Commission, the Foundation highlighted the issue of lack of coordination between

DISCOMs and TRANSCO and mentioned that inspite of power availability, less power is being drawn from the grid thus resulting in power cuts. Mr. Arun Kumar Dutta stated that a PIL has been filed on restructuring and privatisation of power distribution function in Delhi and the matter is subjudice with the Hon'ble High Court and hence the ARR Petitions should not be processed till the Hon'ble Court disposes off the matter.

'Energywatch' argued that the Policy Directions of the GNCTD have brought in an unhealthy practice by introducing the AT&C concept which violates the provisions of the ERC Act, 1998, and suggested that the Commission while deciding the Tariffs in accordance with the Policy Directions, should also compute the extra burden required for following the Policy Directions and the GNCTD should be made to pay this amount prior to implementation of the Tariff Order.

### **2.3.2 Response of the Petitioner**

The Petitioner has highlighted that rigorous efforts are being undertaken in various functional areas including metering and billing. The Petitioner has further stated that it is conscious of the fact that AT&C loss reduction above the bid level will benefit the overall power sector performance in Delhi. The AT&C loss reduction to the bid level over 5 years will require collections to increase significantly at the current tariff level and is projected to turn around the sector. The incentives for over achievement will lead to greater efforts to reduce the losses further. The Petitioner has further pointed out that the Policy Directions issued by GNCTD under the Delhi Electricity Reform Act, 2000 has envisaged that the additional revenue from such better performance in reducing AT&C losses will be considered for the purpose of tariff fixation and hence the benefit will be passed on to the consumers.

## **2.4 Compliance with the Directives of the Commission**

### **2.4.1 Objections**

Mr. V. K. Gupta, Municipal Counsellor, MCD has requested the Commission to disapprove the ARR Petitions in absence of the compliance of the Directives issued vide previous Tariff Orders. Mr. Gupta has pointed out that the Commission had directed the Petitioner to discuss and agree with MCD on the mechanism for charging Electricity and Maintenance charges for Streetlights. This directive has not yet been complied with and Mr. Gupta has requested the Commission to forward the matter to an Arbitrator, whose decision should be final and binding.

Mr. Vijay Kumar Gupta, during the public hearing process, requested the Commission that any directions given by the Commission in the last tariff order and not yet complied by the Petitioners should be dealt strongly and the Commission might levy some fines and penalties to enforce compliance with directives. He further added that the ARRs of the companies should not be admitted till they comply with all the directives issued in the last Order.

'Chetna' has pointed out that the Petitioner has not finalised any scheme relating to power consumption by erstwhile DVB employees, as directed by the Commission. They have prayed to



the Commission to consider levying penalty on the Petitioner for non-compliance of the above directive.

#### **2.4.2 Response of the Petitioner**

The Petitioner has replied that MCD is in a better position to maintain Streetlights. The Petitioner has further stated that the status of the issue regarding maintenance of Streetlights has been indicated in Part 2, Section 9 of the ARR Petition and pending determination of maintenance charges, the Petitioner is maintaining the streetlights with the provision that the charges determined shall be effective from the date of hearing from the Commission. The Petitioner has also clarified that it has submitted detailed response to the MCD proposal.

### **2.5 AT&C Losses**

#### **2.5.1 Objections**

Several respondents have objected to the high level of AT&C losses, pilferage and theft of energy, etc.

Reserve Bank Staff Co-operative Housing Society Limited has requested the Commission to take steps to stop/minimise the power thefts first and review the demands made by the DISCOMs after a year keeping in view the increase in their revenue as a result of plugging power thefts. Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) has requested the Commission to prescribe a fixed time schedule to check the theft and make the DISCOMs responsible for adhering to the agreed schedule of reduction of AT&C losses.

Shri Rajan Gupta of Bharatiya Mazdoor Sangh submitted that the huge revenue gap projected by the Petitioners is indicative that the AT&C losses have increased. Senior Citizens Welfare Association, Delhi Dal Mills Association, and The Federation of Group Housing Societies have submitted that the AT&C losses as indicated by the Petitioner do not indicate any improvement or efforts on the part of the Petitioner to reduce the same. The Senior Citizens Forum has requested the Commission to examine the reported AT&C losses critically rather than allow the Petitioners to maintain the bid levels, which are extremely modest. Mr. V. K. Gupta, Municipal Counsellor, MCD, has argued that the difference in the amount billed and amount realised till it is declared as non recoverable should not be treated as part of the AT&C losses. The Federation of Group Housing Societies has estimated that if T&D losses were restricted to 10%, it would increase revenues by Rs. 1,960 Crore from consumers of Delhi. The objectors have added that the Petitioner is unable to recover its dues or is prevented from doing so at the instance of the Government on political considerations and therefore, there should be no Tariff increase, till the losses are brought down to acceptable levels. Mr. Anil Sood, Chetna argued during the public hearing process that the Petitioner does not have the will to reduce the AT&C losses and prayed to the Commission not to burden the consumer for any AT&C loss in excess of 20%. He also stated that BSES in its ARR

document has not made any comments on the status of AT&C losses and steps taken to ensure that losses are reduced to the target levels agreed at the time of privatisation.

Mr. G.M Chopra, during the public hearing, requested that the Commission must direct the Petitioners to make concerted efforts to reduce the AT&C losses. He also suggested that the Petitioners must make efforts to reduce the AT&C losses beyond the targets as envisaged in the transfer scheme.

Mr. Vijay Kumar Gupta, in his submission and during the public hearing process, suggested that consumption of new connections should not be taken while calculating the AT&C losses as their contribution to the overall losses are minimal. He also suggested that the theft bills should not be considered in AT&C losses.

The Senior Citizens Forum has submitted that the Petitioner should be directed to explain the lack of significant improvement in the level of power losses and the Petitioner should be asked to submit a quarterly progress report to the Commission in this regard.

Northern Railway has suggested in its objection filing as well as during public hearing that the Petitioner should submit a road map for reduction in commercial loss. As a part of the road map, the Petitioner should separately indicate the revenue earned out of such loss reduction and its effect on the average cost of electricity. In addition, the collection efficiency has to be improved to the levels as determined by the Commission. Ms. Neeta Gupta has suggested that the Petitioner should make the concerned area staff accountable for AT&C losses and should take prompt action to reduce the same. Vivekanand Puri Vikas Parishad has stated that the Petitioner has been juggling with the figures and indicating higher AT&C losses only to claim higher subsidy from the Government.

PHD Chamber of Commerce and Industry requested the Commission to obtain complete data regarding payments made by the Government agencies during the past 3 years to ascertain the correct collection efficiency levels for different categories of the consumers, particularly in the case of the Government consumers.

Mr. Vijay K. Gupta suggested that the consumption of DMRC should not be accounted for while considering achievement of AT&C loss reduction target, as DMRC was not in existence at the time of preparation of Transfer Scheme and calculation of opening level of AT&C losses. The objector added that inclusion of DMRC's consumption in AT&C loss computations, would overstate the achievement as DMRC receives most of its supply at 220 kV.

Referring to the Petitioner's failure to establish proper interface metering, Mr. Sahni of PHD Chamber of Commerce and Industry and Mr. S. K. Aggarwal feared that all the calculations of energy received and billed indicated in the ARR's might have been done on the basis of committed loss reduction levels as per the accepted bids, and has no relevance to the actual

AT&C loss levels. The Commission was urged to work out a time bound programme with the Petitioner to ensure that the metering is complete and AT&C losses are determined accurately on scientific basis at least during FY 2004-05. It has also requested the Commission to appoint a reputed consultancy company to undertake an independent assessment of realistic AT&C losses.

The Senior Citizens Forum further stated that the Petitioner should focus attention on areas with higher loss levels to reduce the overall system losses. All India Plastic Industries Association has suggested that the Petitioner should lay underground cables in theft prone areas to curtail theft, as the higher capital cost would be offset by the resultant additional revenue being generated. It has also suggested that the Petitioner should have an independent system of surprise checks to identify cases of theft and connivance and take corrective action immediately.

Mr. Sunil Kapoor, Patparganj F.I.E. Entrepreneurs Association stated that they have sent a request to the DISCOM stating that a survey may be carried out in their area to estimate the AT&C losses. He further suggested that in case, the losses in their area are lower than the average losses of the DISCOMs, consumers of their area should be charged a tariff less than the tariff charged to consumers in high losses areas.

### **2.5.2 Response of the Petitioner**

The Petitioner has stated that it is making rigorous efforts in various functional areas including metering and billing and is conscious of the fact that reduction in AT&C loss above the target level will benefit the overall power sector performance in Delhi. The Petitioner has also highlighted several measures being undertaken to reduce the theft of electricity. The Petitioner has stated that it has streamlined and strengthened the enforcement system. The Petitioner has indicated its plan to electrify 518 unelectrified colonies through High Voltage Distribution System. The Petitioner has stated that it has taken up the task to replace the electromechanical meters with advanced technology electronic meters equipped for download of data and tamper indications for more accurate readings. The Petitioner has also envisaged converting connections presently being billed on flat rates to metered connections.

The Petitioner has further pointed out that some of the proposed capital expenditure towards laying down basic infrastructure, system augmentation, LT clean up and improvements in the metering and billing systems will also help in reducing the losses. The Petitioner has further suggested that its efforts would yield better results after various mechanisms like the Appellate Authority and Special Courts for trying offences under the Electricity Act, 2003 are in place. It has also stated that the additional revenue from improved performance will be shared with the consumers in accordance with the Policy Directions.

## **2.6 ARR and Revenue Gap**

### **2.6.1 Objections**

The major objection under this head relates to authentication of actual revenue and expenditure, restricting wasteful expenditure of the Companies, detailed examination of the accounts of the Petitioner by the Commission, establishing prudence, etc.

'Energywatch' argued that the Commission should not accept the expenses as mentioned in the audited accounts of the Petitioner, but should determine the ARR and Tariffs on the basis of "properly incurred expenditure", and should be guided by Section 28 of Delhi Electricity Reforms Act, 2000 and Section 29 of ERC Act, 1998, in this regard. Energywatch quoted from the Supreme Court judgement in this regard (SLP Nos. CC 6293/02 & CC 6307/02).

Delhi Transco Limited has pointed out that the Petitioner has included certain expenses in the revised estimates for FY 2003-04, which was disallowed by the Commission earlier.

PHD Chamber of Commerce and Industry, Mr. Vijay K. Gupta have requested the Commission to conduct due diligence of the costs claimed by the Petitioners to ensure strict compliance with the Commission's previous Orders and rework the revenue gap before considering any increase in either BST or RST for FY 2004-05.

Delhi Transco Limited further stated that the request for reduction in Bulk Supply Tariff to meet the revenue gap is against the basic spirit of the Transfer Scheme Rules according to which these Distribution Companies should become financially viable by the end of transition period of FY 2006-07 by way of reducing their AT&C losses, improving performance and collection of revenue to the extent of their Annual Revenue Requirements. Mr. S.P. Gupta, GM (Commercial), Delhi Transco Limited, stated during the public hearing that the capital expenditure requirement shown by the Petitioners is much higher than the projection done by SBI Capital and TCS at the time of restructuring of DVB and privatisation of Distribution Companies.

Mr. L. N. Aggarwal has requested the Commission to ensure that the electricity is available to common man at economical rates. The objector has added that the Distribution Companies should not be allowed to make money at the cost of the common man. PHD Chamber of Commerce and Industry has also suggested that the Commission may also consider requesting the Government of Delhi for enhancing the loan assistance suitably so as to obviate any need for upward revision of Bulk Supply Tariff.

Mayapuri Industrial Welfare Association has expressed concern on the increasing revenue gap and has indicated that this is due to increasing inefficiency in the system. Its representative Mr. O.P. Kapoor requested the Commission during public hearing as well as in the objection filed before the Commission to reconsider the 16% guaranteed return when Petitioner is unable to reduce theft of power.

Chetna has pointed out that the Petitioner has proposed to recover the projected shortfall of Rs. 232 Crore for FY 2003-04 in FY 2004-05 and has prayed to the Commission to disallow this expense.

### **2.6.2 Response of the Petitioner**

The Petitioner has maintained that the Bulk Supply Tariff for each of the DISCOMs is to be determined on the basis of the paying capacity of the DISCOM as specified under the Policy Directions issued by GNCTD.

## **2.7 Power Purchase Expenses**

### **2.7.1 Objections**

PHD Chamber of Commerce and Industry requested the Commission to ensure that the various DISCOMs, NDMC and MES make available their estimated energy requirements to Delhi Transco Limited well in time to enable it to plan procurement of sufficient power to meet the power requirements of Delhi fully.

Mr. S. K. Aggarwal has mentioned that the total energy requirement of the three Distribution Companies has not shown much growth (from 18,320 MU in FY 2003-04 to 18,357 MU in FY 2004-05) while the demand so far has been growing at 9 to 10% every year.

### **2.7.2 Response of the Petitioner**

The Petitioner has clarified that it has not projected any increase in the energy input for FY 2004-05 based on past trends of growth in energy requirement and considering the proposed reduction in AT&C losses.

## **2.8 Depreciation charges**

### **2.8.1 Objections**

Mr. Vijay K. Gupta, in his objections submitted to the Commission and also during the public hearing process has suggested that depreciation should be excluded from expenditure for the purpose of ARR. He also suggested that depreciation approved in the past Tariff Orders should be disallowed. Alternatively, he suggested that the effect of any change in valuation of the assets after revaluation should be charged at the end of the Reform Period i.e. FY 2006-07 either to the tariff or to the account of the Holding Company.

Mr. S. K. Aggarwal and PHD Chamber of Commerce and Industry have requested the Commission to retain the depreciation rate of 3.75% for the purpose of approval of depreciation expense for FY 2003-04 and FY 2004-05 as against higher rates of depreciation adopted by the Petitioner on the basis of the Ministry of Power notification of March, 1994.

### **2.8.2 Response of the Petitioner**

No specific response has been received from the Petitioner.

## 2.9 Investments

### 2.9.1 Objections

The majority of objections under this head relate to analyses of proposed investments and checking prudence thereof.

PHD Chamber of Commerce and Industry requested the Commission to examine the details of projected capital expenditure including the sources of funds, the equipment for which the orders have been placed, expected delivery of the equipment and installation thereof, while approving the proposed capital expenditure for the year. It has also requested the Commission to periodically monitor the progress of the project to ensure completion of all the proposed works within the targeted completion dates.

PHD Chamber of Commerce and Industry has opined that the capital expenditure Rs. 1177 Crore envisaged for FY 2004-05 by the Petitioner seems to be quite high.

Delhi Transco Limited has pointed out that the Petitioner has proposed large investments on land, building, establishment of a new corporate office, IT and communication, vehicles, testing equipment, tools and tackles, automatic meter reading, distribution automation, LT cleaning, meter and metering accessories, etc. It has further stated that the expenditure proposed to be incurred on SCADA, laying of new service lines, electrification of unauthorised colonies, establishment of new grid substations and improvement of 11 kV network seems to be highly inflated taking into consideration the recent trend in market prices and the expenses being incurred by DVB on similar works in the past. It has further highlighted that the Petitioner have not indicated any resultant gain derived out of such heavy investments, which are disproportionate to the net block of the Petitioners, as is evident from the Table 2.1 below:

**Table 2.1: Comparison of Capital Expenditure Proposed by DISCOMs with Net Block**

Rs. Crore

DISCOM	Proposed Capital Expenditure for FY 2004-05	Net Block + CWIP for FY 2003-04
NDPL	307	900
BYPL	1,565	277 + 28
BRPL	1,177	1,072 + 27

Delhi Transco Limited has pointed out that the petitioners have proposed large investments on land, building, establishment of a new corporate office, IT and communication, vehicles, testing equipment, tools and tackles, automatic meter reading, distribution automation, LT cleaning, meter and metering accessories, etc. It has further stated that the expenditure proposed to be incurred on SCADA, laying of new service lines, electrification of unauthorised colonies,

establishment of new grid substations and improvement of 11 kV network seems to be highly inflated taking into consideration the recent trend in market prices and the expenses being incurred by DVB on similar works in the past.

Delhi Transco Limited has requested the Commission to evaluate whether the main objectives should be to incur essentially required expenditure to reduce the AT&C losses in a gradual manner besides improving the quality of supply and whether the consumer should bear upfront the cost of hi-tech projects such as substation automation, IT and Communication facility, etc. before the Distribution Companies become financially viable.

Mr. L. N. Aggarwal raised an apprehension that the Distribution Companies might be replacing the old/faulty transformers, etc. to create large assets for enhancing their Returns and Depreciation expenditure in the Aggregate Revenue Requirement.

Shri Rajan Gupta of Bharatiya Mazdoor Sangh mentioned that the Petitioners have failed to provide safe feeder pillars and adequate LT ACBs in their sub-stations. Moreover, the Petitioners have also failed to provide copies of the Commission's approval along with the Petitions for all Cap-Ex schemes above Rs. 1 Crore, which indicates that the claim of the Petitioner is vague and should be rejected.

Delhi Transco Limited has pointed out that the Distribution Companies have not made provision for payment for the cost of stores made available to them after deducting an amount of Rs. 5 Crore already paid by each of the Distribution Companies. It has quoted Clause 2 (a) of the Shared Facility Agreement in support which states as follows: *"Each of the item of material lying in the centralised stores pertaining to distribution functions shall be divided amongst the three Distribution Companies in equal share with a right to the Distribution Companies to adjust amongst themselves and vary the proportion of the stores based on their mutual agreement. Transco shall bill the DISCOMs for these stores on actual cost."*

### **2.9.2 Response of the Petitioner**

The Petitioner has reiterated its submission that the proposed capital expenditure would help it in loss reduction, improvement in system reliability and customer services. The results of proposed capital expenditure shall become visible over time.

## **2.10 Employee Expenses**

### **2.10.1 Objections**

The Senior Citizens Forum has requested the Commission to critically examine whether the claimed revenue expenditure is necessary and to ensure that the Petitioner has undertaken adequate measures to reduce wasteful expenditure, improve productivity of labour and staff. While the objector has recognised that the Petitioner has inherited an inefficient and oversized organisation

from erstwhile DVB, it has requested the Commission to ensure that the consumers are not made to pay for the failure of the Petitioner to improve productivity and efficiency. Delhi Transco Limited has requested the Commission to scrutinise projected increase in the employees' cost despite considerable reduction of employee's strength through VRS schemes.

Bharatiya Mazdoor Sangh and Vivekanand Puri Vikas Parishad have submitted that the Commission should reject the expense towards Special Voluntary Retirement Scheme (SVRS) indicated in the Petitions, since it would adversely affect the retail tariffs of the consumers. Mr. Vijay K. Gupta has suggested that the amount paid to employees under SVRS scheme should not be allowed under ARR, as benefit of this expense would be available to the Petitioner even beyond the Reform Period i.e. after FY 2006-07. Mr. Arun Kumar Datta has suggested that the SVRS expense should be borne by the Petitioner either from reserves or from his reasonable return. Senior Citizens Welfare Association has also requested the Commission to disallow the expenses related to SVRS. Several objectors during public hearing process, including Mr. Ved Kumar Gupta and Mr. Datta reiterated their concern over the VRS expenses and requested the Commission to disallow these expenses while approving the ARR.

DVB Employees Terminal Benefit Fund 2002 (Pension Trust) has pointed out that the Distribution Companies have not made any provision for the amount payable to the Pension Trust towards the additional liability to the Pension Trust because of SVRS implemented by the Distribution Companies for their employees. The estimate of such additional liabilities, pending detailed actuarial valuation, indicated by the Pension Trust is Rs. 242.98 Crore, Rs. 236.91 Crore, and Rs. 316.56 Crore for NDPL, BYPL and BRPL, respectively. This additional amount would be required for meeting disbursement requirements towards terminal benefits of employees who have opted for SVRS. This additional liability is attributable to separation of employees before their attaining the age of superannuation. The Pension Trust and Delhi Transco Limited have requested the Commission to consider the issue of inclusion of above liabilities in the ARR of the DISCOMs. Subsequently, the Pension Trust has withdrawn their submission.

Mr. Vijay K. Gupta suggested that some of the officers of erstwhile DVB, who were directly involved/associated in the disinvestment/transfer process at high pay and perks, should not be allowed to continue as employees of DISCOMs to maintain the code of conduct.

Northern Railway requested the Commission to disallow recruitment expenses to the Petitioners. Vivekanand Puri Vikas Parishad has pointed out that the new employees are earning very high salaries and perks, while the meter fixing and reading work is being outsourced to private agencies.



### **2.10.2 Response of the Petitioner**

The Petitioner has clarified that the employee expenses include uniform allowance, medical reimbursement, DA increase, ex-gratia and other allowances of erstwhile DVB employees as per the tripartite agreement.

The Petitioner has clarified that the SVRS was offered to the employees of the Petitioner after following due procedure. Further, the details of the scheme and the amortisation schedule have been submitted for the consideration of the Commission. The Petitioner has further pointed out that the expenses on SVRS are expected to be offset through savings due to reduction in employee cost, as may be approved by the Commission.

As regards the recruitment expenses, the Petitioner has clarified that recruitment of professionals in various disciplines is essential for the transformation of the utility into a resource optimising and cost efficient entity. As regards the uniform expense, the Petitioner has clarified that the expenditure on uniforms of the employees is necessary for better identification by consumers and creating a brand image. As regards the expense on mobile phones, the Petitioner has clarified that the allocation of mobile phones is done selectively by the Petitioner in order to increase operational efficiency and improve coordination between the field staff and the local offices of the Petitioner.

### **2.11 Other Expenses**

#### **2.11.1 Objections**

Mr. S. K. Aggarwal commended the Commission on the due diligence conducted on various expense heads to ascertain the admissibility of the expenses in the previous Order and requested the Commission to conduct due diligence on similar lines for the expenses claimed by the Petitioner. Further, he requested the Commission to compare the Distribution costs with other Distribution Companies in Mumbai and other places, and to specify the upper limit of these expenses to ensure that the Petitioner is prudent while incurring these expenses. PHD Chamber of Commerce and Industry suggested specifying normative limits for salaries, administration and general expenses, R&M expenses and others to curb the freedom of the Petitioners.

Mr. S. K. Aggarwal requested the Commission to direct the Petitioner to file the variance statements for each expense head indicating the expense as indicated by the Commission, the estimate of the Petitioner and the reasons for the variations, to enable the Commission to look into the admissibility of the revised expenses.

##### **2.11.1.1 R&M Expenses**

Vivekanand Puri Vikas Parishad stated that the renovation programmes of the Petitioner, primarily in office renovation, should be carried out in a phased manner. Additionally, the objector has pointed out that the movable and immovable properties of the Petitioner have increased

manifold, and has requested the Commission to consider this factor while deciding on tariff increases.

Mr. Arun Kumar Datta has suggested that the expense towards replacement of defective/burnt/tampered meters should not be charged through Tariff and should be borne either by the individual consumer or by the Petitioner.

#### **2.11.1.2 A&G Expenses**

Northern Railways requested the Commission to disallow expenses relating to brokerage, business promotion, miscellaneous items, etc. as stated by the Petitioners. Vivekanand Puri Vikas Parishad objected to the computerisation programme of the Petitioner.

Mr. V. K. Gupta, Municipal Counsellor, MCD claimed that total dues payable by the three Distribution Companies to the MCD amounts to Rs. 844.16 Crore, which have not been indicated in the Petition specifically. The break up of the arrears is as given in Table 2.2 below:

**Table 2.2: The break-up of arrears by distribution companies to MCD**

Sub Head	Approximate Amount
Ground rent and Encroachment charges upon Municipal Land	Rs. 259.70 Crore
Arrears of Electricity Taxes (including Rs. 536.92 Crore of dues from erstwhile DVB)	Rs. 552.51 Crore
Arrears of Property Tax (DVB)	Rs. 31.95 Crore
<b>TOTAL</b>	<b>Rs. 844.16 Crore</b>

The Objector requests the Commission to consider the above case and direct the Petitioner to clear the above arrears to the MCD.

#### **2.11.1.3 Income Tax and Deferred Tax Liability**

PHD Chamber of Commerce and Industry and Mr. S. K. Aggarwal have objected to the Returns being provided on a post tax basis and requested the Commission to review the inclusion of taxes on income and profits and deferred tax liability as allowable expenses.

Mr. Vijay Kumar Gupta, during the public hearing process, requested the Commission that the return provided to the Petitioner should be on pre tax basis and no such expenses on account of tax should be passed on to the consumer.

#### **2.11.2 Response of the Petitioner**

The Petitioner has pointed out that the land continues to vest with the GNCTD under the Transfer Scheme and the same has been given to the DISCOMs for use as a Licensee on payment of a License Fee for the duration of the License to undertake the distribution business. The Petitioner has

opined that the property tax liability cannot be charged to the Petitioner, as the Petitioner is merely a Licensee and not the owner of the property.

The Petitioner has clarified that the A&G expenses relate to engagement of professional agencies for improvement in commercial operations viz. meter reading, meter replacement, bill distribution and bill printing. The Petitioner has further stated that these measures are aimed at reducing commercial losses and improving consumer services.

The Petitioner has stated that the electricity tax imposed on the consumers is collected by the Petitioner on behalf of the MCD. The amount so collected is paid on accrual basis to the MCD based on the actual collection taking into account the tax rate on energy charges and the proportion of energy charges in the total collection of the Petitioner. The Petitioner has further clarified that a collection charge on the electricity tax is allowed to the Petitioner and the same has been considered under non-tariff income in the ARR Petition.

## **2.12 Truing up**

### **2.12.1 Objections**

Shri Rajan Gupta has suggested to the Commission that the truing up should be done on actuals and based on prudence checks, as per the earlier Orders. Since the current Petition is based on the revised estimates and not on actuals for FY 2003-04, the Commission should not allow truing up of these expenses.

### **2.12.2 Response of the Petitioner**

No specific response has been received from the Petitioner.

## **2.13 Return on Equity**

### **2.13.1 Objections**

PHD Chamber of Commerce and Industry and Mr. S. K. Aggarwal have requested the Commission to look into the basis of calculating the Return claimed by the Petitioner. PHD Chamber of Commerce & Industry also suggested reduction in rate of return on equity for the DISCOMs to less than 16% on account of reduction in interest rates in the market. It has suggested that the return should be worked out on the basis of "Equity plus free reserves at the beginning of the year" instead of "Equity plus free reserves at the end of the year". Senior Citizens Welfare Association requested the Commission to reconsider the 16% guaranteed returns provided to the Petitioner, since there are no discernible efficiency improvements shown by the Petitioners.

Energywatch argued that the 16% returns is not sacrosanct and requested the Commission to also consider other factors like, interest of consumers, efficiency, economic use of resources and good performance, which are mentioned in Section 29 of ERC Act, 1998 and Section 28 of Delhi Reforms Act, 2000.

Mayurdhwaj Residents Welfare Association requested the Commission to reduce the ROE to 10% and abolish all other subsidies and grants.

Northern Railways have suggested that the Commission may review the rate of 16% return on equity in view of the general inflation rates of consumable commodities.

### **2.13.2 Response of the Petitioner**

No specific response has been received from the Petitioner.

## **2.14 . Demand Estimation**

### **2.14.1 Objections**

PHD Chamber of Commerce and Industry requested the Commission to look into the assumptions of demand growth for FY 2004-05. Delhi Transco Limited requested the Commission to carry out careful scrutiny of the assumptions made by the Distribution Companies regarding sales, consumer mix and realisation in respect of various categories of consumers. It has further pointed out specific assumptions, which need detailed scrutiny, as follows:

Revised estimation of units sold by BRPL and BYPL is considerably less than that considered by the Commission for FY 2003-04.

NDPL has projected an increase of 14% in the domestic category over the projected sales in FY 2003-04 which is 19% higher than the sales in the previous year FY 2002-03 and has projected proportionately less sale of energy in other higher tariff categories such as industrial and commercial.

Even though NDPL has lesser number of unauthorised colonies to be electrified in its license area as compared to the other two DISCOMs, it has projected a load growth of 14% in domestic category as compared to 6 to 7% projected by BRPL and BYPL in the domestic category.

Even though most of the conforming industrial areas, where the industries are being relocated from nonconforming areas, fall under the jurisdiction of NDPL, NDPL has shown a negative growth for the industrial category.

The load growth projection needs to be scrutinised especially in the context of the large scale electrification of unauthorised colonies proposed by the DISCOMs, installation of new water treatment plants/effluent/sewage treatment plants, Commissioning of new metro rail section and development of new areas by various agencies such as DDA, MCD and DSIDC, etc.

As regards the projection of quantum of power purchase for FY 2004-05, BYPL and NDPL have shown no growth and BRPL has shown a marginal growth of 0.5%.

### **2.14.2 Response of the Petitioner**

The Petitioner has submitted that it has estimated the requirement in line with the past trends of growth in energy requirement.

## **2.15 Treatment of past Arrears Collected**

### **2.15.1 Objections**

Mr. Vijay K. Gupta expressed his apprehension over misappropriation of DVB arrears. Mr. Anil Sood of Chetna stated in his representation and during the public hearing that the Petitioner retains 20% of past arrears and does not include them in the ARR. They have objected to this treatment and requested the Commission to include the 20% amount retained by the Petitioner as income in the ARR.

### **2.15.2 Response of the Petitioner**

No specific response has been received from the Petitioner.

## **2.16 Tariff Policy and Tariff Structure**

### **2.16.1 Objections**

There has been a very encouraging response from the stakeholders conveying suggestions on this aspect. The responses have ranged from suggestions regarding various factors to be considered for revision of tariff, rationalisation of various consumer categories, tariff for different type of consumers, tariffs for licensee, creation of new categories/definition of categories etc.

#### **2.16.1.1 Tariff Policy**

Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) appreciated the transparency brought about by the Commission in regularisation of tariff for Bulk and Retail supply of electricity and restructuring of tariff carried out by the Commission by way of removal of Minimum Charges and Excess Consumption Misuse. Its President, Mr. Ved Prakash Gupta lauded the efforts of the Commission towards the rationalisation of tariff in the Commission's previous Tariff Orders issued on June 26, 2003.

All India Plastic Industries Association requested the Commission to design the Tariffs by laying down certain objective criteria on losses and expenses. The Association also requested the Commission to prepare a comparative picture before granting any increase in the Tariff rates or change in the Tariff structure. It has further requested the Commission to monitor the quality and consistency of power supply on a continuous basis.

Several objectors have strongly objected to any increase in tariffs. Mr. S. N. Ghosh suggested that the tariff revision should not be granted for a period of at least 3 years. Several objectors have requested the Commission to evolve a method to reduce the theft of power, which could lead to reduction in tariff. Dr. R. L. S. Choudhary and Vivekanand Puri Vikas Parishad have emphasised that the theft of power should not be taken as expenditure as it penalises the honest consumer who ends up paying on behalf of the dishonest consumers. IMD Employees Co-Op Housing Society

Limited and Mukhija & Associates have suggested that the consumers should be charged at the actual cost of supplying power and should not be burdened with high level of commercial losses.

As regards the comparison of tariff with neighbouring States to justify the proposed tariff hike, Mr. Vijay K. Gupta pointed out that such comparison is meaningless as none of the compared States receive bulk supply at a rate as low as Delhi, which ranges from Rs. 1.25 per unit to Rs. 1.60 per unit.

Jhilmil Industrialists Association stated that the DISCOMs were constituted with the primary objective of reducing the AT&C loss levels. Therefore, till the AT&C losses are brought down to acceptable levels, there should not be any increase in the Tariffs across categories. Mr. Jain of Naraina Small Industries Welfare Association Phase – I stated that not providing authorised connections to the genuine consumers invites thefts and the DISCOMs should review their connection sanctioning modalities.

All India Plastic Industries Association suggested that a reduction in the Tariff rates would enable higher collections and reduced losses, and cited the example of reduction in Income Tax rate, which has resulted in lower tax evasion and increased revenues for the Central Government.

Mr. Mohinder Pal requested the Commission to reconsider the Tariff rates for Domestic and Farm houses, Non-Domestic single phase and 3-phase (upto 15 kW connection), SSI and LIP (having more than 15 kW connection) and Agriculture, with the objective of reducing the burden on consumers.

#### **2.16.1.2 Cross Subsidy**

Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) expressed that the subsidies should be continued for agricultural category. Its President, Mr. Ved Prakash Gupta stated, during public hearing, that the subsidies should also be extended to economically weaker sections of the society. Parivartan has suggested that the cross subsidy for various categories should be removed, and the cross subsidy amount should be borne by GNCTD and not by other consumer categories. Delhi Jal Board has requested that their tariff should not exceed the real cost of supply and should not meet any part of the cross subsidisation of any class or category of consumers. Mr. M.G Ramachandran, counsel for Delhi Jal Board clarified during public hearing that they are not requesting for a subsidy but looking for a reasonable tariff which should be reflective of cost of supply. Mr. V.K Goyal suggested that the agricultural tariff should be increased to reduce the cross subsidisation.

Northern Railway requested the Commission to ensure that the Petitioner submits details of the embedded costs and the related cross subsidies and also ensure that the subsidies are not charged to the Railways. They have also suggested advance payment of subsidies by the State Government and eventual elimination of cross subsidies.

**2.16.1.3 Industrial Tariffs**

Bal Kishen Bansal and Jhilmil Small Industries Association have suggested that the power factor should be assessed on the basis of actual kWh, kVAh and kVA readings. Several respondents have objected to the proposal of assessing SIP consumers on LIP basis for past six months and for the next twelve months in the event of MDI showing 100 kW or above and has suggested that such assessment should be restricted to the particular month of MDI recording. Naraina Small Industries Welfare Association Phase-I has further brought out that the proposal of penalty for the next 12 months is not only unreasonable but also ultra vires to the Electricity Act 2003 and should not be accepted. Manufacturers Association DSIDC Industrial Complex has submitted for the Commission's consideration that while deciding the change from SIP to LIP, the average demand load of twelve billing cycles (full year) should be taken into consideration as some industries are seasonal in nature.

Patparganj F.I.E. Entrepreneurs Association has requested the Commission to introduce an incentive scheme for SIP consumers based on actual T&D loss levels in the region. Its representative, Mr. Sunil Kapoor stated during public hearing that an incentive in the form of 100% increase in the upper limit of Connected Load should be extended to SIP consumers residing in the regions where T&D losses are within the limit. Further, by distributing the incentive to all consumers within the area on proportionate basis, the consumers would help to ensure that there is minimal theft in their area. The Association in their subsequent submission to the Commission supported the suggestion of Petitioner to have single tariff for Non Domestic, MLHT, SIP, LIP, categories in order to rationalise the tariff and eliminate the unnecessary harassment by the DISCOMs.

Mayapuri Industrial Welfare Association pointed out that many SIP consumers have installed machinery close to each other due to acute scarcity of space, and are being treated as LIP by the Petitioners, inspite of having got independent connections. Its representative Mr. O.P. Kapoor requested the Commission in public hearing to clarify the applicability of Tariff Category. Mr. R.S. Gosain representing Continental Device India Limited (CDIL) stated that the tariff for LIP should principally be less than small consumer because the service cost of DISCOM to such large consumer is very less. He stated that the LIP and SIP categories should not be merged. He also endorsed that the tariffs should be MDI based and resetting of MDI should be allowed at periodic intervals.

Mr. R. P. Jain has objected to advance consumption charges of Rs. 1,500/kW for industrial consumption. He requested the Commission to consider levying of advance consumption charges based on 1.5 to 2.0 months consumption instead of 6 months average consumption.

Mr. Ashok Gupta, Udyog Nagar Charitable Trust has stated that the Petitioner has not been providing 15% discount to SIP consumers as per the provisions of the Commission's Tariff Order for FY 2003-04, even after payment of the required processing fees. He requested the Commission during

public hearing to retain this provision in the next Order as well as direct the Petitioner to implement the tariff provisions.

#### **2.16.1.4 Domestic Tariffs**

IMD Employees Co-op Housing Society Limited, Mukhija & Associates and Delhi Power Consumers' Guild have suggested that the tariffs for the Domestic category should be substantially lowered and professionals operating from their residences should be also considered under Domestic category for the purpose of levying Tariff.

Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) has requested that the rates for the domestic category should be charged at cost of supply without any profit element.

#### **2.16.1.5 Hospitals**

The Indraprastha Apollo Hospitals thanked the Commission for systematic and polite dealing with the public. It also thanked the Petitioner (BRPL) for prompt response and eagerness to resolve the issues. It stated that the quality of supply has improved in Delhi and the power cuts have reduced substantially. The Indraprastha Apollo Hospitals has suggested in their representation as well as at the public hearing before the Commission that hospitals, being important constituents of social infrastructure of NCT of Delhi, should be charged tariffs by creating a separate tariff category and should not be charged under MLHT category. It stated that as the maintenance costs are minimum and there are no thefts or bad debts on the part of hospitals, its tariff should be linked to the cost of supply and cross subsidisation to other categories should not be allowed.

#### **2.16.1.6 Delhi Metro Railway Corporation (DMRC) Railway Traction**

DMRC has detailed the various discussions it has had with the Petitioner and the Government of NCT of Delhi and requested the Commission to consider the following suggestions:

Maintain the Tariff as per earlier Order of the Commission

Determine the Tariff for use of electricity in the proposed IT Park at concessional level as compared to commercial and business establishments

Direct the Petitioner to provide Single Point Delivery for establishments and residential colonies as and when required by DMRC

Mr. Vijay K. Gupta suggested that tariff to DMRC for supply at voltages other than 220 kV should be charged at the same rate as that of supply at 220 kV. He has expressed his opinion that current tariff of Rs. 2.30 per unit is on higher side considering the current BST of Rs. 1.20 to Rs. 1.60 per unit.

Mr. Arun Kumar Datta suggested that DMRC should be allowed to source power directly from NTPC and NHPC.

'Parivartan' objected to the creation of a special Tariff for DMRC, and argued that if any preferential Tariff is given for DMRC due to socio-political considerations, the difference between the tariff and the cost of supply should be borne by the State Government.



Federation of Rohini CGHS suggested that the DMRC should be supplied power at cost of supply and there should not be cross-subsidy burden on DMRC. Mr. Rajamani suggested that Railways and DMRC tariffs should be linked to cost of supply.

#### **2.16.1.7 Railways**

Northern Railways suggested that Railway hospitals should be charged Tariffs under the Domestic Category. Mr. Narottam Das, Northern Railway requested the Commission during public hearing to consider granting specific relief by way of reduction in existing Tariff, exemption from payment of penalty charges on over drawl, applicability of single part Tariff for Railways (similar to that approved by Punjab SERC), and Tariff at par with DMRC since they are serving the same purpose of running EMUs/MEMUs in and around Delhi. Northern Railway has provided a comparison of railway traction tariffs across various States as given in Table 2.3 below:

**Table 2.3: Comparison of railway traction tariffs across various States**

Particulars	HVPNL	Delhi	UPPCL	PSEB
Effective from	September 2001	July 2003	June 2003	May 2003
M. D. Charges Rs./kVA	60	150	165	Nil
Energy Charges Rs./kWh	3.85 (132 kV) 3.77 (220 kV)	3.75/kVAh	3.45/kVAh	4.47

Northern Railway requested the Commission to consider the following additional suggestions:

Levy of late payment surcharge only on payments delayed beyond 60 days of receipt of electricity bill.

Continue exemption from payment of Electricity Duty at 5%.

Mr. Narottam Das, Chief Engineer, Northern Railways, requested to the Commission to fix reasonable tariff for Railways during public hearing. They contended that since, Railways are a public Utility and a bulk consumer, the tariff for Railways should be linked to cost of supply without any cross-subsidisation.

Railways further submitted before the Commission in a rejoinder that any hike in tariff for railways would have a cascading effect on prices of commodities, raw materials and finished products.

#### **2.16.1.8 Co-Operative Group Housing Societies – Single Delivery Point**

Mr. Jagan Puri brought out that the Co-operative Group Housing Societies, who receive power at a single point and in turn distribute power to their members, are selling power at self decided rates benefiting the higher consumption category and overcharging the lower consumption category. It has requested the Commission to direct the Societies to charge their members at the same rates, which are applicable to all other domestic consumers living outside the Societies.

Mr. R.N.Gujral representing the Federation of Group Housing Societies submitted that the Tariff for common services like street lighting within the premises of the Societies should be levied at a minimum rate as these are essentially civic services being performed by the Societies.

Mr. Anil Sood, Chetna in his representation to the Commission and also during the public hearing requested the Commission to review the Tariffs for CGHS and provide additional rebates to the CGHS for facilitating the setting up of the system and reducing the cost of the Petitioner. Ms. Neeta Gupta has suggested that the rebate provided to CGHS consumers should be enhanced to 30%. Delhi Dal Mills Association and Federation of CGHS Dwarka Limited have requested the Commission to consider providing a rebate of the order of 25% to 35% to 11 kV SPD for CGHS. Dr. Suman Kr. Verma representing the Federation of CGHS Dwarka Limited requested the Commission to increase the first slab of Tariff for CGHS from 11.2% to 22.4% of consumption.

#### **2.16.1.9 Others**

Delhi Dal Mills Association suggested adopting a new concept of Tariff categorisation based on supply voltage, for example, HT 33 kV category, HT 11 kV category and LT 220/440 V category. Mr. Bhupendra requested the Commission to direct the Petitioners to introduce "pre paid" electricity meters, on lines similar to "pre paid" mobile phones.

All India Plastic Industries Association requested the Commission to introduce an element of competition between the Distribution Companies.

Chetna has argued that the Petitioner is not collecting additional security deposit from the posh colonies even though their consumption has gone up by over 2 to 5 times and has requested the Commission to enhance the security deposit and include the additional revenue in the Tariff computations. Mr. Anil Sood requested the Commission that the Petitioners should be directed to collect the additional security deposit. This will reduce some financial burden on the consumers.

#### **2.16.1.10 Merging of Tariff Categories**

Delhi Dal Mills Association welcomed the suggestion to merge the four categories, i.e., NDLT, MLHT, SIP and LIP. As regards the proposal to merge tariff categories, Federation of Delhi Small Industries Associations, All India Federation of Plastic Industries and Mayapuri Industrial Welfare Association opined that the Commission should levy the same tariff for all categories of consumers. Continental Device India Limited objected to the proposal of merging LIP category with other categories.

Naraina Industries Association Phase-I & II suggested that there is no need to have different tariff categories based on the paying capacity of the consumers in view of the changing economic and political scenario. Mr. Jain of Naraina Small Industries Welfare Association Phase-I suggested in the public hearing that the number of tariff categories should be reduced. Mr. Kasturi Lal Ajmani suggested that there should be a reclassification of categories and tariffs for consumers, based on their economic status, like poor class, middle class and Aristocrats and non-domestic categories.

National Forum Against Crime & Corruption, New Rohtak Road Manufacturers Association, Manufacturers Association DSIDC Industrial Complex and Mr. V. K. Gupta, Municipal Counsellor, MCD have objected to the proposal of merging non-domestic power consumers with industrial consumers. Wazirpur Industry Association has pointed that merging of categories would burden SIP and non-domestic consumers with the demand charges and higher tariff. IMD Employees Co-Op Housing Society Limited and Mukhija & Associates have brought out that such a move would put the efforts of Honourable Supreme Court to clean the environment of the city in the reverse gear. Instead, it has suggested that the tariff for industries in the conforming industrial areas developed as per Master Plan of Delhi should be lower as compared to industries in non-conforming areas, lal doras, village abadis and agriculture land.

Mr. Vijay K. Gupta and Mr. L. N. Aggarwal have suggested that LIP/SIP slabs should be designed on the basis of consumption and not on the basis of either Connected Load or MDI. Delhi Dal Mills Association has objected to the suggestion that MDI information should be the basis for deciding LIP/SIP, on the grounds that the power load keeps varying depending on various factors.

Naraina Small Industries Welfare Association Phase-I, New Rohtak Road Manufacturers Association, Bhartiya Janta Party, Delhi Pradesh (Industrial Cell), Manufacturers Association DSIDC Industrial Complex and Friends Colony Industrialist Association have requested the Commission to devise a separate Tariff category for SIP consumers consuming between 100 to 300 kVA with higher Energy Charges as compared to SIP category and zero Demand Charges. The rationale suggested is that the energy consumption level for such SIP consumers does not fully absorb the Demand Charges levied.

Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) expressed its agreement for reduction of number of slabs for domestic category. It's President, Mr. Ved Prakash Gupta opined during public hearing that there should be two domestic consumer slabs of upto 500 units and above 500 units.

Residents Welfare Association, Jan Kalyan Samiti, Federation of Rohini CGHS and Mr. S. N. Ghosh have objected to the suggestion of reducing the number of slabs within a tariff category on the grounds that slabs have been revised twice in the past 2 years. Mr. G. C. Goyal has requested the Commission to maintain the existing 4-slab structure for another 3 to 4 years.

Delhi Dal Mills Association and Ms. Neeta Gupta have requested the Commission to reduce the Tariff gap between domestic and non-domestic/industrial tariffs and also abolish the slabs available to domestic consumers, since these slabs are giving undue benefits to domestic consumers with lower consumption.

#### **2.16.1.11 Creation of new Categories/Definition of Categories**

Udyog Nagar Factory Owners Association objected to introduction of new categories fearing increase in Tariffs. Their representative, Mr. Kamal Kiran Seth suggested during public hearing that there should be one category of industrial consumers and that SIP/LIP should be done away with to

streamline the billing and avoid harassment to consumers. As regards the suggestion of introducing a separate LT Mixed Load Tariff Category, Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) has expressed its opinion that there is no need for any new category and introduction of the same might encourage corruption and theft.

Senior Citizens Welfare Association suggested that concessional tariffs should be charged to senior citizens. Mr. Ved Kumar suggested creation of a separate category of senior citizens for fixing up the tariffs.

Mr. Rajamani representing the National Forum Against Crime & Corruption objected to introducing new Tariff categories for those running commercial businesses from their residence, since earlier DVB rules provide for charging non-domestic rates to such consumers.

Mr. V.K Goyal representing 'Parivartan' in his written submission as well as during public hearing suggested that the Farm Houses in Delhi are used for commercial purposes and should be charged under the non-domestic category. Parivartan and Mr. V. K. Gupta, Municipal Counsellor, MCD have objected to the proposal to create a separate category for mixed commercial and residential load premises, stating that this will affect the consumers who are operating offices in residential areas. Instead, they have suggested that the Petitioner should install two separate meters for commercial and domestic load and bill accordingly.

The Delhi Jal Board requested the Commission to create a separate category for them, since they are a public Utility service agency with social obligations. The Delhi Jal Board has requested the Commission to approve the following specific Tariff related issues:

Revise the current Tariff for supply of electricity to Delhi Jal Board.

The connected load should be restricted to the electricity used and should not cover the standby equipment maintained by the Delhi Jal Board.

The cost of electricity should be based on the real cost of supply.

Direct the Petitioner to maintain reliable supply of electricity and provide good quality service.

Delhi Jal Board further pointed out that the Petitioner has been supplying electricity from substations, which at many points are constructed on the land made available by Delhi Jal Board at its cost.

## **2.16.2 Response of the Petitioner**

### **2.16.2.1 Tariff Policy**

No specific response received from the Petitioner

### **2.16.2.2 Cross Subsidy**

The Petitioner has pointed out that it is the responsibility of the Commission to weigh the relative claims of various consumer segments regarding cross subsidisation in the overall spirit of the DERA, 2000 and the Electricity Act, 2003 and arrive at an appropriate differential tariff structure, while yet

ensuring that the structure approved by the Commission is revenue-neutral as far as the DISCOMs are concerned.

#### **2.16.2.3 Industrial Tariffs**

As regards the clubbing of connections, the Petitioner has clarified that it is being carried out as per the directions of the Commission in its last Tariff Order. The Petitioner has clarified that it is clubbing only those connections where the same consumer is using them and are intermixed/extended from one premises to another in the same building whereas the connections were obtained showing on record the various units as separate entities to circumvent the total Sanctioned Load being assessed. It has further mentioned that specific grievance, if any, brought to the notice of the Petitioner will be looked into and redressed as per Tariff Guidelines.

#### **2.16.2.4 Domestic Tariffs**

The Petitioner has replied that clubbing of connections is done as per the directions of the Commission. The clubbing is done for only those connections where they are used by the same user/consumer and are intermixed/extended from one premises to another in the same building. Tariffs for Streetlights and Signals

As regards the maintenance of Street lighting, the Petitioner has reiterated its submission that it can be best handled by the MCD as the roads are laid and maintained by the MCD.

#### **2.16.2.5 Hospitals**

No specific response has been received from the Petitioner.

#### **2.16.2.6 Delhi Metro Railway Corporation (DMRC) and Railway Traction**

The Petitioner has pointed out that the special tariff for traction supply is applicable only due to the nature of DMRC being a consumer at 220 kV. For all other voltage levels and points of supply, the DMRC is liable to pay tariff as applicable to similarly placed consumers of the Petitioner, at the corresponding voltage level.

As regards the implementation of minutes of meeting with Principal Secretary (Power) regarding billing of kiosks, vends, etc. at stations, the Petitioner has clarified that the meeting was in a context of reaching a supply agreement between DMRC and the Petitioner and the DMRC is required to file Draft Agreement with the Commission for its approval.

As regards the continuing of Single Point Delivery Scheme for residential consumers of DMRC, the Petitioner has proposed to provide supply to residential establishments of DMRC under the provisions of the Electricity Act, 2003 and Metering and Billing Regulations of the Commission.

The Petitioner has submitted that the Railways should not be compared to DMRC because of difference in the supply voltage. It has pointed out that the Commission has also considered them under different tariff categories.

The Petitioner has replied that the exemption of Fixed Charges for Railways is not justified, as even the subsidised consumer categories of Domestic and Agricultural consumers are charged Fixed Charges. As regards the capacity blockage charge, the Petitioner has stated that the Commission has addressed this issue in its last Tariff Order.

#### **2.16.2.7 Co-Operative Group Housing Societies – Single Delivery Point**

The Petitioner has stated that it is merely conforming to contractual obligations entered into by the erstwhile DVB in case of Single Delivery Point connections by continuing with the scheme of Single Point Delivery scheme for CGHS. Further, the Petitioner has opined that 15% rebate in tariff for CGHS is high. The Petitioner has pointed out that the Commission, in the previous Tariff Orders, has indicated that it is not in favour of giving any rebate to any consumer category other than high voltage consumers. The Petitioner has stated that supply to Domestic consumers shall be provided under the provisions of the Electricity Act, 2003 and Metering and Billing Regulations of the Commission.

The Petitioner has replied that cross subsidisation amongst consumer categories is due to social compulsions and the allocation for such charges has been determined by the Commission.

#### **2.16.2.8 Others**

No specific response has been given by the Petitioner

#### **2.16.2.9 Merging of Tariff Categories**

The Petitioner has stated that the categorisation of consumers is based on the use of energy being supplied, quantum of load, voltage level of supply, etc. Such categorisation has been done taking into consideration socio-economic conditions, paying capacity of consumers and also the system conditions.

#### **2.16.2.10 Creation of new Categories/Definition of Categories**

The Petitioner has pointed out that HT consumers are required to provide sub-station space free of cost as per the existing policy. The Petitioner has also stated that if this practice were not followed then it would be required to recover the cost of land from the tariff, which would result in an increase in tariff for all consumers. It would not be desirable that the burden of cost incurred to meet the requirement of particular consumer is passed on to the other consumers.

The Petitioner has clarified that the standby arrangements made by the consumer has to be specifically mentioned in the test report submitted by the consumer and verified as such at the

time of release of load or any time thereafter and the higher of the capacities (standby and availed from Licensee) shall be taken into account while computing the Connected Load.

As regards the Billing Demand, the Petitioner has clarified that Billing Demand is higher of the Contract Demand and Maximum Demand Recorded and the Contract Demand can be upto the tune of 60% of the Sanctioned Load. The Petitioner has further suggested that the Delhi Jal Board may review its Sanctioned Load requirement and reduce Contract Demand up to the permissible limits after complying with the commercial formalities.

The Petitioner has pointed out that the Commission has earlier not considered the proposal of a separate category with lower tariffs for senior citizens. It has further pointed out that the Commission has shown disapproval for giving any special rebate to any consumer category other than those available for supply at higher voltages.

The Petitioner has stated that it has proposed a mixed load tariff category for LT consumers (on similar lines as MLHT) to avoid possible disputes and remove subjectivity in the process of determination of usage of such connections, where commercial and residential loads are used by the same owner/user.

## **2.17 SPD Connections**

### **2.17.1 Objections**

Rangpuri Pahari Basti has requested for direct supply from the Petitioner instead of SPD Contractor, to improve available quality of supply

Pooja Electricals, Bajrang Vidyut Company Pvt. Ltd. and Sahyog Power Contractors have highlighted that erstwhile DVB, vide Commercial Agreement dated October 18, 2000, had agreed to pay Commission of 20% of revenue to the SPD Contractor in addition to 27% deduction in energy bill. Since the Agreement is valid for 7 years and binding upon the successor entities of DVB, the Objectors have requested the Commission to make commensurate provision for costs. The objectors during the public hearing requested the Commission that the matter must be resolved at the earliest because they have invested a lot of capital and time on setting up their infrastructure and the Petitioners are not honouring their commitments as per the contract. Pooja Electricals further submitted that as the contractor is a wholesale bulk trader, the tariff for SPD Contractors should be fixed by the Commission.

Mr. V. K. Gupta, Municipal Counsellor, MCD, suggested that the SPD system for Contractors is leading to pilferage and suggested that the SPD system be handed over to the Co-operative Societies. Mayurdhwaj Residents Welfare Association suggested that the Commission may direct the Petitioner to hand over the local distribution in urban areas to local Co-operatives and NGOs under the SPD scheme.

### **2.17.2 Response of the Petitioner**

The Petitioner has stated that supply to residential consumers shall be provided under the provisions of Electricity Act, 2003 and Metering and Billing Regulations of the Commission. SPASHT (Scheme for a set of SIP and/or LIP Consumers) Connections

### **2.17.3 Objections**

Mr. Kamal Kiran Seth of Udyog Nagar Factory Owners Association has suggested during public hearing that the connection of SIP or LIP be immediately released for the applicants who have already applied for the same and the benefit as offered by NDPL in its "SPASHT" scheme be offered to all SIP consumers. Mr. Suraj Prakash has suggested that single-phase new connections be allowed under domestic and non-domestic category upto a load of 5 kW in all premises in all approved and unapproved areas.

### **2.17.4 Response of the Petitioner**

The Petitioner has not specifically responded to this issue.

## **2.18 Fixed Charges**

### **2.18.1 Objections**

In this segment, the suggestions pertained to the rationale for levy of Fixed Charges, the rate and the manner of levy.

Several Respondents have objected to the proposed increase in Fixed Charges. [Mentioned by Mr. Jain, Naraina Small Industries Welfare Association Phase-I, Mr. V.P. Gupta, Bhartiya Janta Party, Delhi Pradesh (Industrial Cell), Jan Kalyan Samiti, Mr. G. C. Goyal, Udyog Nagar Factory Owners Association, Mr. Arun Kumar Datta, Mr. Ved Kumar Gupta, Mr. Bhupendra, Federation of CGHS Dwarka Limited] New Rohtak Road Manufacturers Association, Continental Device India Limited, Federation of Rohini CGHS, Mr. Kuldeep Chuckoo, President, Friends Colony Industrialist Association, Mr. R.N. Gujral and Parivartan have suggested that the Fixed Charges should be abolished, till the time uninterrupted power supply can be guaranteed. Mr. A.K. Gupta, Friends Colony Industrialist Association, Delhi Dal Mills Association, and several individuals have recommended the abolition of Fixed Charges for SIP and domestic consumers in their representation before the Commission and during the public hearing.

Mr. Vijay K. Gupta and Manufacturers Association DSIDC Industrial Complex have opposed any change in the Fixed Charges on the grounds that it was introduced last time after considering all the aspects in the matter. Reserve Bank Staff Co-operative Housing Society Limited, Mr. L. N. Aggarwal and Mr. S. N. Ghosh have expressed its opinion that the whole concept of recovery of Fixed Charges is ill conceived and its recovery based on the Sanctioned Load is highly unscientific and discriminatory. The objector has requested that the old system of meter rent at Rs. 12 per month should be reintroduced in place of the Fixed Charges. IMD Employees Co-Op Housing



Society Limited and Mukhija & Associates have suggested that the Petitioner should take necessary steps to reduce the fixed expenses to lower the break-even point. Federation of Delhi Small Industries Associations, All India Federation of Plastic Industries, Delhi Power Consumers' Guild and Mayapuri Industrial Welfare Association have requested that the Fixed Charges should be reduced to 50% of the existing rates.

Mr. B. N. Ahuja objected to the proposal of levy of Fixed Charges based on Maximum Demand on the grounds that an ordinary consumer would not understand the concept. Naraina Small Industries Welfare Association Phase-I and Ms. Neeta Gupta have supported the proposal of levy of Fixed Charges based on Maximum Demand recorded by the electronic meter instead of the Sanctioned Load. Mr. V.K Goyal suggested introduction of fixed charged based on per capita consumption basis and suggested the example that the 50 units per person per month can be taken as benchmark figure to arrive at the fixed charged per household.

As regards the interim proposal of levy of Fixed Charges based on normative consumption for each category of consumers, Naraina Small Industries Welfare Association Phase-I, Federation of Delhi Small Industries Associations, All India Federation of Plastic Industries and Naraina Industries Association Phase-I and II have suggested that the normative consumption for the Industrial category for the purpose of assessment of Fixed Charges should be fixed at 200 units/kW/month instead of the proposed level of 150 units/kW/month. Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) and Manufacturers Association DSIDC Industrial Complex have pointed out that the assessment of Fixed Charges based on 150 units/kW/month is based on an erroneous assumption of 10 hours working of the industry, which is not universally true.

Mr. B. N. Ahuja pointed out that the interim proposal of levy of Fixed Charges based on normative consumption of 96 units/kW/month for domestic consumers would be a burden on consumers having a load of 5 to 10 kW. Sukhdev Vihar SFS (Pocket 'A') Residents Welfare Association has suggested that Fixed Charges should not be levied on the basis of 30 units per kW per month. The suggestion is extended based on the assumption that a Domestic Consumer on an average may be using 25% of maximum demand for about 4 hours on daily basis. Levy of Fixed Charges for 12 months on maximum demand basis would penalise domestic consumers for occasional use of the appliances. He further pointed out that percentage utilisation of electrical appliances in the domestic category is quite low as compared to that of industrial/commercial consumers and may vary widely from family to family. Mr. Anil Gupta of Friend Colony Industrialist Association mentioned that the fixed charges should not be a part of tariff structure as the Fixed Charges are not being charged by TRANSCO to DISCOMs.

Railways suggested that Levy of Fixed Charges should be based on recorded MDI instead of Sanctioned Load.

Mr. R.S. Gosain, Continental Device India Limited stated that since the fixed charges are levied on the principle of "readiness of supply", a provision of rebate should be introduced, in case, there is

no supply from the DISCOM. Mr. Rajamani suggested that the fixed charges should be levied in conformity with the actual costs.

Mr. V. K. Gupta, Municipal Counsellor, MCD, suggested that the Fixed Charges should not be levied, and has given the example of Haryana, where Fixed Charges are not levied.

### **2.18.2 Response of the Petitioner**

The Petitioner has replied that the demand based Fixed Charges are necessary to maintain the infrastructure to supply electricity. The Petitioner has stated that the elimination/exemption of demand charges is not justified, as it is a universally acknowledged and established practice of tariff fixation. The Petitioner has further pointed out that the Commission, in its last Tariff Order, has also mentioned the same. The Petitioner has justified the proposal of increase by stating that the Commission, in its last Tariff Order, had fixed these charges below the level of Minimum Charges with the intent to determine it correctly and revise the same in the following Tariff Order. The Petitioner has further brought out that the Fixed Charges are lower than that prevalent in other neighbouring States and are also not in conformity with the actual cost incurred.

## **2.19 TOD Tariffs**

### **2.19.1 Objections**

Delhi Power Consumers' Guild objected to implementation of Time of Day Tariffs employing 'Time of Day Meter' citing earlier experiences with 'Electronic Meters'. Federation of Rohini CGHS also objected to the introduction of TOD Tariffs since it will add to the complications in the billing system. Dr Devendra Kumar representing the Federation of Rohini CGHS, during the public hearing process reiterated his point that such a mechanism will add to the complexities of the system.

Mr. Kamal Kiran Seth, Udyog Nagar Factory Owners Association, Northern Railways and Mr. Bhupendra have supported the suggestion of introducing TOD Tariffs, as long as the Petitioner is in a position to assure quality of supply, i.e., no fluctuations, proper frequency and availability during peak time. Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) and Continental Device India Limited supported the introduction of 'Time of Day Tariff'. Its representative suggested, during public hearing, that the energy charges for industrial consumers operating for 24 hours daily or only during night time should be much lesser than that applicable for industries running only during day time. This would help in management of the load on the system. Mr. R.S.Gosain of Continental Device India Limited supported TOD tariff during public hearing but raised the issue that the TOD Tariffs should adequately address the provisions of TOD tariff applicability to multiple shift industrial consumers.

### **2.19.2 Response of the Petitioner**

No specific response has been received from the Petitioner. Low Power Factor Surcharge and kVAh based Tariff

### 2.19.3 Objections

As regards the suggestion of making consumers liable for installation of adequate shunt capacitors, Bhartiya Janta Party and Delhi Pradesh (Industrial Cell) have pointed out that levy of a surcharge does not help in maintaining the system. To improve the system, either consumer or the Petitioner should maintain the power factor by installation of shunt capacitors, where the cost of installation could be charged to the consumers. Wazirpur Industry Association, Naraina Small Industries Welfare Association Phase-I, Delhi Dal Mills Association and Mr. Vijay K. Gupta have pointed out that the consumer alone should not be subjected to penalties as Clause 34 of the Conditions of Supply casts a duty on the Petitioner to install shunt capacitors of adequate capacities at the cost of consumer if consumer fails to install the same. Manufacturers Association DSIDC Industrial Complex has suggested that the power factor should be maintained by the Distribution Companies as they have better infrastructure to have economical, efficient and regular maintenance of capacitors required to maintain power factor. Charges for the same may be charged from the consumer on the basis of load. IMD Employees Co-Op. Housing Society Limited and Mukhija & Associates have expressed the concern that such approval for making consumers liable would amount to giving wide powers to the field staff of the Petitioner to harass the consumer.

Northern Railway suggested that installation of capacitor banks should be made mandatory for industrial/commercial consumers.

Mr. R.K. Khetan, President, Jhilmil Industrialists Association stated in their objection as well as during public hearing mentioned that the consumers are being charged Low Power Factor Surcharge despite installation of shunt capacitors and submission of Test Reports in support of their operation. Federation of CGHS Dwarka Limited requested the Commission to waive the Low Power Factor Surcharge in case of SPD connection for CGHS. Dr. Devendra Kumar, representing the Federation of CGHS Rohini, during the public hearing process stated that low power factor surcharge should not be introduced unless the Petitioners educate the consumers. He also stated that their federation has already installed shunt capacitors and the power factor in their area is well above the desired levels specified by the Commission.

Several respondents have objected to the introduction of kVAh billing for consumers having Connected Load more than 15 kW. IMD Employees Co-Op Housing Society Limited and Mukhija & Associates have opined that no fruitful objective will be achieved till the shunt capacitors of adequate ratings are installed by the Petitioner. Mr. L. N. Aggarwal expressed the fear of increase in electricity bill with the introduction of kVAh billing and requested the Petitioner to educate the consumers about the merits and de-merits of maintaining average power factor of 0.85 before introduction of kVAh billing.

Northern Railways and Udyog Nagar Factory Owners Association have welcomed the move to introduce kVAh billing, but suggested that the introduction should be linked to installation of electronic meters. Delhi Dal Mills Association has stated that since the consumer cannot maintain

power factor and can only install shunt capacitors according to the Connected Load, it would be more appropriate to bill consumers on kWh or kVARh basis. Mr. R. P. Jain requested the Commission to consider kVAh billing based on a normative power factor of 0.85 as an interim solution while the meters are being installed.

#### **2.19.4 Response of the Petitioner**

The Petitioner has highlighted the importance of adequate power factor in maintaining reliable power supply and has stated that it is the responsibility of the consumer to ensure maintenance of power factor at his installation. The Petitioner has also quoted the example Orissa Electricity Regulatory Commission (Distribution – Conditions of Supply) to substantiate its viewpoint. The extract quoted by the Petitioner is *"The consumer shall so arrange his installation that the average power factor of his load during any billing period is not less than 90%. Power factor penalty shall be levied if there is a break of the aforesaid requirement and supply of power may be discontinued if the power factor falls below 60%."*

The Petitioner has reiterated its request to the Commission to review the provisions of its last Tariff Order regarding Low Power Factor Surcharge so that the consumer is responsible for provision of adequate capacitors for maintenance of power factor. The Petitioner has referred to the Clause 2 of "General Conditions of Supply" of the Commission's Order for FY 2001-02, in support of its request.

The Petitioner has also stated that the onus of providing specification of shunt capacitors cannot rest on the Petitioner as this may lead to litigation by the consumers for the failure and subsequent loss of property.

The Petitioner has expressed its support for implementation of kVAh based billing.

### **2.20 Late Payment Surcharge**

#### **2.20.1 Objections**

Friends Colony Industrialist Association requested for reduction in the late payment surcharge from 1.5% per month to 1.0% per month. Mr. A.K. Gupta, Secretary stated that the interest on dues after disconnection of supply should be charged after adjusting the advance consumption deposit. Several objectors during the public hearing voiced their concern over the late payment surcharge. They were of the view that the surcharge must be applied to the amount outstanding after adjustment of the consumption deposit made by the consumers. Mr. Suraj Prakash suggested that LPSC should be levied after adjusting the consumer security deposit.

#### **2.20.2 Response of the Petitioner**

The Petitioner has replied that the surcharge is charged as a deterrent so that the consumers do not default and has no linkage with the prevailing interest rates in the banking sector. The Petitioner

has pointed out that the Licensee has to incur additional costs in maintaining a mechanism to recover payment, serve additional notices and disconnect defaulting consumers, etc.

The Petitioner has maintained that the surcharge is to be levied on the total outstanding dues without adjustment of the consumption deposit.

## **2.21 Connected Load**

### **2.21.1 Objections**

Several respondents have pointed that the present definition of Connected Load has created havoc amongst the SIP consumers. The Maximum Demand of the SIP consumers with a Sanctioned Load not exceeding 100 kW does not typically exceed 50 to 60 kW. The practice of determination of Connected Load based on physical inspection of ratings of connected load was relevant while there were no facilities to measure the maximum Connected Load. Such practice is outdated and fallacious in the era of electronic meters. With the availability of electronic meters, the Connected Load should now be determined based on recorded Maximum Demand of the electronic meter during the whole of the billing period. Mr. Ashok Gupta of Udyog Nagar Charitable Trust suggested that definition of connected load should be revisited.

Delhi Dal Mills Association suggested that the definition of Connected Load should not include the load exclusively meant for pollution control i.e. pollution control equipment, effluent treatment plant, sound proofing, etc., on the same principle as that applied for excluding the load exclusively meant for fire fighting purposes. Mr. Jain of Naraina Small Industries Welfare Association Phase – I, expressed concern over the confusion between connected load and sanctioned load as interpreted by the DISCOMs and requested the Commission to look into the matter.

All India Federation of Plastic Industries, Naraina Industries Association Phase-I and II and Federation of Delhi Small Industries Associations have suggested that the definition of SIP consumers should be revised in line with the proposed change in definition of Connected Load, as "The SIP load shall mean the Maximum Demand not exceeding 100 kW as recorded by the electronic meter (MDI) during the whole of the billing period. If the Maximum Demand as recorded by the meter during the whole of the billing period exceeds 100 kW at any time, during the billing period, the consumer shall pay the bill for the said period, with 50% penalty".

Udyog Nagar Factory Owners' Association in their rejoinder submitted before the Commission has cited a case of one of their member whose industrial sanctioned load had been clubbed by the DISCOM and put into LIP category after visiting the premises. According to the objection rejoinder, three different concerns were operating in the same premises on different floors under the proprietorship of entrepreneurs not related to each other. However, the DISCOM officials on raiding the premises treated the entire connected load as one industrial consumer and put it under the LIP category as the combined load exceeded the threshold limit of SIP consumer category and penalised the consumer. The Association protested about the handling of case by the DISCOM

and stated that such action was unwarranted. They highlighted the problem faced by the industrial units on account of such actions by the DISCOMs.

Northern Railway requested the Commission to consider the following points:

Consider billing demand as lower of Contract Demand and Sanctioned Load.

Do not treat extension of feed from one substation to another as load violation in case of non-availability of supply.

Railways being a moving load have the problem of short spells of increased consumption at some locations, which exceeds sanctioned load. Therefore, the penalties for exceeding the sanctioned load should be reduced for Railways.

#### **2.21.2 Response of the Petitioner**

The Petitioner has expressed its opinion that the definition of Connected Load appears to be directed more in the context of assessment of energy (viz. Dishonest Abstraction of Energy/pilferage) and not for change in consumer category. The consumer categorisation should be correlated to the Sanctioned Load as the Licensee provides infrastructure to cater to the entire Sanctioned Load of the consumer. Such Sanctioned Load includes all type of loads installed at the consumer's premises including load of portable apparatus in the consumer's premises and the load of all spare plug sockets.

The Petitioner has replied that manual inspection is necessary to ensure that the Sanctioned Load as proposed by the consumer during Installation Test Report, is accurate. This is desirable because the Petitioner has witnessed a large number of cases where the consumer has under-declared the load to circumvent higher tariff charge.

The Petitioner has also stated that MDI reading may not be indicative of the factual position of the Sanctioned Load as it only records simultaneous maximum demand during any consecutive 30 minutes and not indicate the total load installed. Moreover, the Petitioner has pointed out that it is essential to introduce and institute the concepts of contract demand and maximum demand in the relevant categories to implement MDI system. The Petitioner has requested the Commission to review the definition of Connected Load for greater clarity and proper application.

### **2.22 Billing for Unauthorised Usage**

#### **2.22.1 Objections**

Wazirpur Industry Association pointed out that the current practice of raising bills for unauthorised usage of electricity on the basis of 6 months of presumed unauthorised usage and 5 times the applicable tariff rate for the category contravenes Clause 126 of Electricity Act 2003 which specifies 6 months of presumed unauthorised usage and 1.5 times the applicable tariff rate. It has requested the Commission to modify the rate for unauthorised usage of electricity on the basis enunciated in Electricity Act 2003. It has further suggested that such bills should be raised on the

basis of the Connected Load only and not on the basis of the higher of the Connected Load or Sanctioned Load.

Mr. Suraj Prakash requested the Commission to clarify the definition of "unauthorised use of electricity" as provided under Section 126 (b) (i) to (iv) and under 2nd Provision of Section 135 of the Electricity Act, 2003.

#### **2.22.2 Response of the Petitioner**

The Petitioner has stated that the scope of Sections 126 and 135 of the Electricity Act, 2003 would be clear if read in context and not in isolation. The Petitioner has further pointed out that the main distinguishing feature between the two Sections is the ingredient of the dishonest intention in the case of theft.

### **2.23 Billing**

#### **2.23.1 Objections**

##### **2.23.1.1 Billing Grievances**

Friends Colony Industrialist Association appreciated the Commission's initiative in improving the quality of service. The Senior Citizens Forum drew the attention of the Commission to the chaotic situation prevailing in the billing system of the Petitioner and stated that only the appearance of the bills has changed. The Senior Citizens Forum, Common Cause, Chetna, Mr. Lohit Ganguly and Reserve Bank Staff Co-operative Housing Society Limited have requested the Commission to take necessary steps to redress continuance of grievances such as the problems of inflated billing, meter reading not being taken at regular intervals, wrong readings being taken, late delivery of bills, computation mistakes in determining energy charges, reporting of arrears after payment, no correlation between amounts of arrears and amounts of earlier bills, etc.

The Senior Citizens Forum further observed that although a new system for issuing bills is being followed by the Petitioner, the system is not being correctly operated and has been creating a lot of problems for the consumers, specially the senior citizens. It has requested the Commission to look into the matter and pass necessary directions to bring relief to consumers from billing errors.

Jhilmil Industrialists Association, Common Cause and Vivekanand Puri Vikas Parishad indicated that the Petitioners have been billing on arbitrary basis and have not been adjusting the electricity bill inspite of repeated reminders and promises. Mukhija & Associates, New Rohtak Road Manufacturers Association and IMD Employees Co-Op Housing Society Limited have expressed concerns over issuance of provisional billing of high amount in the event of replacement of meter. It has requested the Commission to prescribe a penalty to discourage such practices adopted by the Petitioner. New Rohtak Road Manufacturers Association requested the Commission to prescribe a penalty if arrears are reflected in the current bills for two or more times even after the payment of the same. Mr. G. C. Goyal brought to the notice of the Commission that the DISCOMs

have been charging enhanced advance consumption deposit even for change in name. Mr. Kapoor, representing, Mayapuri Industrial Welfare Association suggested improvements in the format of the bill so that power factor and other important parameters can be reflected in the bill. Mukhija & Associates in their subsequent submission before the Commission has submitted that a DISCOM be allowed to charge at a fixed rate only in case where the energy charges based on consumption of consumer is less than fixed charges. In case the energy charges are more than the fixed charges, the DISCOM should charge the maximum of fixed charges and the consumption charges.

Mr. Suraj Prakash has suggested that disconnections due to non-payment must be done in accordance with the Electricity Act, 2003 and corresponding regulations should be notified by the Commission.

Mr. Suraj Prakash and Delhi Dal Mills Association have suggested that the billing, collection and complaint handling procedures should be more consumer friendly. All India Plastic Industries Association and Friends Colony Industrialist Association have requested the Commission to direct the Petitioner to address all billing and related consumer grievances within 7 to 10 days of reporting of grievance. 'Chetna' prayed to the Commission to ensure that the Petitioner appoints Zonal Forums for effective handling of consumer grievances.

Dr. Choudhary, Advocate during the public hearing process suggested that the Petitioners may outsource a lot of non-critical services to reduce their expenses. He also suggested that there must be a person deputed at the drop box who stamps on the receipt when the consumer deposits his bill. This will reduce a number of disputes arising out of issues like non-payment, loss of cheques etc. Mr. Kapoor of Mayapuri Industrial Association stated that the bills distributed by the DISCOMs should also indicate maximum demand and power factor.

Mr. Ved Kumar, suggested that a logbook may be maintained where the meter reader and consumer signs every time the reading is taken. This will reduce the reading mistakes and hence the issue of wrong billing may be resolved to a larger extent.

#### **2.23.1.2 Monthly billing cycle**

Mukhija & Associates, Naraina Small Industries Welfare Association Phase-I, Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) and IMD Employees Co-Op Housing Society Limited indicated its agreement with suggestion of monthly billing cycle provided the dates for issue of bills is fixed and bills are delivered to the consumers well in time. Joint Committee of Residents Welfare Associations of Pitampura requested that the advance consumption deposit should be adjusted according to the consumption pattern based on actual billing cycle.

Federation of Delhi Small Industries Associations, Rattan Park Sudhar Sabha, Mayapuri Industrial Welfare Association, All India Federation of Plastic Industries and several individuals have objected to the proposal of reduction in the billing cycle to one month and have requested the Commission



to retain the existing bimonthly billing system. Jan Kalyan Samiti objected to the proposed change in billing cycle on the grounds that it would be very harsh to stand in queue every month for consumers, especially senior citizens and ladies. Mr. Devender Kumar supported the Petitioner's suggestion of billing cycle on monthly basis subject to adjustment of security deposit by the DISCOMs.

#### **2.23.1.3 Self/Spot Billing**

Mr. G. P. Garg, Director General of Income Tax (Retd.), suggested a scheme of 'Self/Spot Billing' to prevent undue harassment to the compliant consumers and to focus the Petitioner's resources on dealing with defaulters. This system is based on the principle of voluntary compliance with effective deterrence. The consumer would be required to take his own meter reading, submit the same to the billing counter and pay on the spot. Introduction of this system will make certain meter readers and billing clerks redundant, who could be utilised in a system for effective deterrence. For this system, an incentive equivalent to 15% on bill amount should be offered to the consumers.

#### **2.23.2 Response of the Petitioner**

The Petitioner has submitted that it is making rigorous efforts in various functional areas including Metering and Billing. The Petitioner has streamlined and strengthened the enforcement machinery and has been undertaking necessary actions in accordance with the Electricity Act, 2003 and the Metering and Billing Regulations. The Petitioner has also stated that adequate redressal mechanisms are in place to handle the grievances of the consumer.

The Petitioner has reiterated its support for monthly billing by stating that the concept of monthly billing will not only ease payment procedures but also reduce consumer liability. The Petitioner has also introduced payment facility through drop boxes, easy bill counters and Internet for the convenience of consumers.

The Petitioner has clarified that the provisional bills are being issued as per the Performance standards (Metering & Billing) Regulations, 2002.

Referring to the Tariff Order for FY 2003-04, the Petitioner has pointed out that the Commission did not find the concept of meter reading cards to be practical.

### **2.24 Meters and their replacements**

#### **2.24.1 Objections**

Mr. G. C. Goyal stated that the Petitioner has not yet fully implemented the Performance Standard Regulations as directed by the Commission and there is a persistent problem of faulty/defective meters. Joint Committee of Residents Welfare Associations of Pitampura and Mr. L. N. Aggarwal have accused the Petitioner of installation of non-standard, non-ISI mark meters, which record higher consumption. Based on the news paper reports, Bharatiya Mazdoor Sangh has submitted

that the new electronic meters were faulty and about 30% of meters were reporting higher consumption.

Naraina Small Industries Welfare Association Phase-I has expressed its concerns over meter checking practices adopted by BRPL.

Naraina Small Industries Welfare Association Phase-I has suggested that the consumer should be permitted to get his meter checked by independent agencies such as BIS, DPCC, Shri Ram Centre and NPL. Such agencies should be pre-approved for meter checking by the Commission and the DISCOMs.

Manufacturers Association DSIDC Industrial Complex and Mr. L. N. Aggarwal have further suggested that in case the installed meters are found faulty, the Distribution Companies must be penalised for installing the faulty meters and the excess money paid by the consumer, if any, should be reimbursed to him with interest.

#### **2.24.2 Response of the Petitioner**

The Petitioner has stated that electronic meters being installed by the Petitioner are ISI certified and undergo inspection and testing prior to despatch at the manufacturers' works and subsequently in the Petitioner's laboratory.

The Petitioner has also pointed out that metering and billing related issues are being dealt separately under the Performance Standards (Metering and Billing) Regulations and Complaint Handling Procedures issued by the Commission. Redressal mechanisms are available through the Petitioner's own internal Consumer Grievance Cell and Customer Support Service Centre. Other independent forums, viz., Consumer Forums and Ombudsman under the Electricity Act, 2003 will also become available in due course. The Petitioner has assured that it is committed to bring further improvements in operation and consumer services.

### **2.25 Development Charges and Deposit Works**

#### **2.25.1 Objections**

Mr. Suraj Prakash asked the Petitioner to submit the status of Development work and Deposit work vis-à-vis the requirements of the consumers for which the development charges have been paid. It was also suggested that the Petitioner should make available to the public, the information about the areas where development work is to be carried out or being carried out.

#### **2.25.2 Response of the Petitioner**

The Petitioner has clarified that the Petitioner has been periodically submitting the scheme-wise details of the progress with respect to the Development work and the Deposit Works to the Commission. Procedure for getting connection and load sanctioned

**2.25.3 Objections**

Mayapuri Industrial Welfare Association, All India Federation of Plastic Industries and Federation of Delhi Small Industries Associations have pointed out in their objections as well as during public hearing that the DISCOMs have been making new tenant responsible for non-payment of dues by earlier tenant or occupier and have requested the Commission to direct the Petitioner to discontinue this practice and also clarify applicable provisions.

All India Plastic Industries Association suggested that the requirement of obtaining MCD license by industrial units operating in Non Conforming areas of Delhi should be removed so that the Petitioner can provide new connections to such units.

**2.25.4 Response of the Petitioner**

The Petitioner has submitted that it is the responsibility of the incoming consumer to ensure that there are no outstanding dues towards electricity bills in the premises, just as in the case of other liabilities, like taxes and any other encumbrances. The Petitioner has further clarified that the practice of making new consumer responsible is as per the General Conditions of Supply specified in the Tariff Order of May 2001. The Petitioner has further stated that if the revenue stream of the Licensee were not duly protected, then this added burden would fall on the paying consumers in terms of loss in quality of service and tariff increase. The Petitioner has stated that definition of premises should be linked to the MCD address to avoid malpractice.

**2.26 Inspection/Raid of Premises****2.26.1 Objections**

Patparganj F.I.E. Entrepreneurs Association has brought to the notice of the Commission that the Enforcement Department team has been conducting raids on consumer premises without prior notice and specific authorisation and have been issuing notices/minimum demand bill for SIP/LIP based on arbitrary calculations of Connected Load. Their representative Mr. Sunil Kapoor complained that employees of DISCOMs visit the premises without proper authorisation and while downloading the data they end up damaging the seals of meters leading to problems at the consumer's end.

Patparganj F.I.E. Entrepreneurs Association and Mukhija & Associates have added that while carrying out the inspection for detecting theft, the field staff of the Petitioner may be accompanied by either the office bearers of the society, associations or neighbours.

**2.26.2 Response of the Petitioner**

No specific response has been received from the Petitioner. Quality of Service/Supply

### **2.26.3 Objections**

PHD Chamber of Commerce and Industry requested the Commission to look into the performance of the Petitioner on various fronts and issue appropriate directions to improve the technical performance of the Petitioner so that the power supply in Delhi could be improved further. Manufacturers Association DSIDC Industrial Complex requested the Commission to decide on customer service level for maintenance, repair, billing, etc. to be adhered to by the Petitioner.

Joint Committee of Residents Welfare Associations of Pitampura and Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) have pointed out that a drastic fall of voltage during day time has been observed on several occasions compelling the consumers to either run the industries by using generator or stop the production. It has submitted for the Commission's consideration that the Petitioner should be made liable for maintaining the voltage level of electric supply and consumers should be given due compensation for the losses suffered due to low voltage.

Mr. B. N. Ahuja mentioned that the problem of interruptions was resolved 3 days after his personal visit to AE's office. He has added that his complaint was not responded to after registration through the telephonic Complaint Registration system.

### **2.26.4 Response of the Petitioner**

No specific response has been received from the Petitioner. Other Suggestions

### **2.26.5 Objections**

Mr. V.P. Gupta, Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) suggested that the energy charges should be reduced for higher consumption levels to encourage honest consumers.

Senior Citizens Welfare Association suggested that the Petitioners should provide 16% return on the Deposits made by the Consumers. Mr. Rajamani also recommended that the Petitioners should pay interest on the deposits made by the consumers.

Mr. Arun Kumar Datta suggested that the maintenance of streetlight should be retained with the Petitioner and should not be passed on to MCD. It was suggested that the Commission might request the GNCTD to bear the expenses towards the electrification of Jhuggi Jhopdis, Harijan Bastis and Tubewells or direct the Petitioner to meet the same from its reasonable return.

Bhartiya Janta Party, Delhi Pradesh (Industrial Cell) suggested that the refund of excess charges by the Petitioner should be made by cheque payment rather than by adjustment in electricity bills.

'Chetna' submitted that the website of Petitioners should be updated on a regular periodic basis.

Mr. Bhupendra has suggested that the Tariff should be based only on two factors, Supply Voltage and Time of Day.

### **2.26.6 Response of the Petitioner**

No specific response has been received from the Petitioner.



## **2.27 Commission's Views**

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

For instilling confidence in the utilities as well as to bring about a greater understanding and appreciation of the complexity of the issues involved, the Commission ever since its institution, has made conscious and continuous efforts to bring about transparency in the tariff setting process.

The Commission made a beginning in addressing the challenges brought in by the modifications in the regulatory framework due to Policy Directions through its BST Order dated February 22, 2002. The lack of institutional and policy precedents existing in the country to provide the required guidance and support to effectively tackle the issues at the implementation level in the privatised and multi-year framework was an immediate challenge. At the same time, being the ERC at the National Capital heightened the challenge and demand as the Commission is being looked upon as a model for privatised distribution entities subsequent to restructuring and privatisation for other States to emulate. For setting high standard for others, it was quintessential to target high by considering global standards. The Commission, therefore, signed a MoU with the Public Services Commission of Maryland, USA on February 3, 2002 to tap international expertise available in the sector regulation, and had been interacting with them on various issues.

Further, the Commission also realised that the foundation stone of any meaningful regulation of the utilities is to have an effective platform for exchange of operational and performance related information with the utilities throughout the year, rather than the interactions being limited to year-end submission of filings. Accordingly, the Commission required the utilities to spell out detailed information/reasons for their state of affairs as well as the steps they proposed to undertake for improving the situation over an extended period. The Commission undertook visits for actual verification of the information submitted by the utilities. The shortcomings in their information systems and processes were conveyed to the utilities while eliciting improved performance. Information availability being the key to quicker processing of the Petitions, the Commission is in the process of developing and installing a Regulatory Information Management System (RIMS). A Consultant for developing the RIMS is being finalised. The RIMS aims at building an MIS with pre-defined information formats, accessible to the utilities through the Internet for periodic updates. RIMS is expected to help the utilities and the Commission to come to a common understanding about the level, form and diversity of information to be made available for processing of the ARR Petitions among others. It would also ease the pressure placed on the utilities in the existing set-up to provide the desired information within a limited period for year-end review of operations.

The Commission is convinced that improvement in service standards should go in tandem with the operational improvement envisaged in the framework established by the Policy Directions over the five-year period beginning FY 2002-03. For this purpose, such standards shall have to be notified

and adequately disseminated amongst the consumers in order to ensure effective compliance. The Commission, with this objective, has notified the following Regulations/Orders:

(i) Performance Standards (Metering & Billing) Regulations dated August 19, 2003. The Regulations outline the procedure for resolution of consumer complaints related to Metering & Billing including:

Procedure for lodging of complaints by the consumer;

Procedure for resolution of the complaint by the utility;

Time-frame for resolution of complaint by the utility;

Procedure for dissemination of information regarding the name and contact telephone number of the utility personnel to be informed in case of delay in the redressal of the complaint;

Periodic status update to the Commission on pending complaints

(ii) Complaint Handling Procedure dated June 3, 2003 details out procedures in respect of all of the aspects mentioned in (i), in regard to power supply failure on various accounts, voltage fluctuations, and outages.

(iii) Schedule of miscellaneous charges for rendering various services to the consumer, not covered as a part of the Tariff Schedule brought out by the Commission in the Tariff Order.

Section 28(7) of the Delhi Electricity Reform Act, 2000 sets out the overall principles for the Commission to determine the tariffs to all categories of consumers defined and differentiated according to the consumer's load factor or power factor, the consumer's total consumption of energy during any specified period, or the time at which supply is required. The Act mandates the Commission to adopt factors which will encourage efficiency, economic use of the resources, good performance, optimum investments and other matters which the Commission considers appropriate keeping in view the salient objects and purposes of the provisions of this Act.

The Commission recognises the impact of good tariff design in promoting efficient consumption. In the Tariff Order of 23.05.01, the Commission had rationalised some of the tariff related issues including the provisions in the Tariff Schedule. The Commission also introduced kVAh billing for high voltage consumers to encourage them to improve their power factor. The Commission in its Tariff Order of June 26, 2003 on the ARR and Tariff Petitions of Transmission Company and three Distribution Companies attempted to rationalise the tariffs and made certain changes in the tariff structure to simplify the structure in response to the representations made by various respondents during the process. Some of the key changes in the tariff structure made by the Commission in its Orders dated June 26, 2003 are as follows:

Abolition of Meter Rent;

Abolition of Misuse Charges for all the provisions of misuse including that of the requirement of valid MCD licence and Lal Dora Certificate;

Merger of Induction Arc Furnace Category with LIP Category;  
Merger of Traffic Light Category with Public Lighting Category;  
Merger of Separate Domestic Lighting and Power Connections;  
Movement of tariff towards a Two-Part Tariff regime with Provision for Fixed Charges in lieu of Minimum Charges and Meter Rent;  
Removal of Concept of Normative Consumption for levy of surcharge;  
Rationalisation of Late Payment Surcharge.  
In addition to these changes in the tariff structure, the Commission in its Order dated June 26, 2003 gave several directives to the Petitioners with the objective of rationalising the tariff structure. The directives given by the Commission in relation to tariff rationalisation were:

Prepare a Base Paper on Time of Day (ToD) metering and submit it to the Commission;  
Maintain data on average power factor, kWh, kVAh and kVARh consumption for the consumers with electronic meters and submit it to the Commission;  
Installation of electronic meters for all the consumers of SIP/NDLT categories, except those upto 10 kW being supplied on single phase;  
Submit a Base Paper on voltage linked tariff;  
Maintain consumption data for domestic category in blocks of 50 units, i.e. 0-50 units, 51-100 units, 101-150 units, etc. and submit it to the Commission.  
The Compliance of these directives by the Petitioner has been discussed in Chapter 7 of the Order and the Commission's views on these tariff rationalisation measures have been elaborated in Chapter 5 of the Order.

With this background, the Commission now proceeds to provide its views on the various issues raised by the respondents in the previous Sections.

### **2.27.1 Procedural Issues**

#### **2.27.1.1 Filing of ARR Petitions**

The original Petition was filed by the Petitioner on December 26, 2003. The Commission conducted technical sessions with the Petitioner and highlighted the basic data gaps/deficiencies in the Petition, which were required to be rectified before the admission of the Petition. The Petitioner complied with the Commission's directives and submitted the requisite information required for the admission of the Petition on January 16, 2004. The Commission examined the Petition and the subsequent information submitted by the Petitioner and found that the Petition filed (along with additional information) by the Petitioner is in line with the ARR and Tariff Guidelines issued by the Commission. Thereafter, the Commission admitted the Petition for further processing on January 16, 2004.

With regard to issuance of License under the Electricity Act 2003, the Commission would like to clarify that the Petitioner was acting as a Deemed Licensee under the Electricity Act, 2003 and subsequently, the License has been issued to the Petitioner on March 12, 2004.



**2.27.2 Quality of Filing and Additional Information****2.27.2.1 Adequacy of information**

As regards the adequacy of information, the Commission would like to bring to the notice of the stakeholders that substantial data/information has been submitted by the companies during the process in order to fill the data gaps in the respective ARR Petitions, even after the admission of the Petitions. The Commission has also obtained the actual cost, revenue and investment related data for FY 2003-04 from the Petitioners.

The Commission is of the opinion that considering the substantial volume of data/information obtained from the Petitioners by the Commission during the processing of the Petitions, it is not feasible to provide a copy of the entire data/information to the Public along with the ARR Petition. Moreover, as specified in the Regulations of the Commission, any stakeholder can see the data by visiting the Commission's office and following due procedure for access to such data.

As regards the suggestion of providing copy of the Report of the Commission on the methodology followed by the Commission towards actual verification of the data, to the objector, the methodology followed by the Commission for scrutinising each and every element of the ARR has been deliberated in detail in Chapter 3 of the Order.

As mentioned in Chapter 1 of this Order, the Commission's staff also undertook field visits in the Petitioner's license area at some select locations, to review the physical progress of the Capital Works and Repairs and Maintenance Works. Thus, all possible efforts have been made by the Commission to verify the submissions of the Petitioner for FY 2003-04 and to make realistic projections for FY 2004-05.

As regards non-submission of data on meter rentals and late payment charges, the Petitioner has subsequently submitted these details during the process.

**2.27.2.2 Time provided to stakeholders for response**

The Commission is of the opinion that the time provided to the stakeholders for responding to the Petitions was reasonable, considering that the Public Notice in the newspapers was brought out by the Commission on January 17, 2004 and the last date of submission of objections/comments was further extended from February 17, 2004 to February 27, 2004.

**2.27.2.3 Audited accounts and Fixed Asset Register**

As regard to submission of audited accounts, the Petitioner has submitted the audited accounts for the previous year FY 2002-03 (July 2002 to March 2003). Further, during the ARR and Tariff process, the Commission also obtained the Audited Accounts for FY 2003-04 (April 2003 to March 2004). As regards the Fixed Asset Register, the Petitioner submitted the Fixed Asset Register along with valuation report in the month of July 2003 during the ARR and Tariff Process for FY 2002-03 and FY 2003-04.

### **2.27.3 Policy Directions and Reform Process**

The Policy formulated and Directions issued by the Government in exercise of its powers under section 12 of the Delhi Electricity Reforms Act, 2000 are binding on the Commission. The Commission, therefore, does not have any further views in the matter. Furthermore, this aspect has been discussed and addressed in the Commission's Order on Bulk Supply Tariff and opening level of AT&C losses issued on February 22, 2002.

As regards improvement in the service quality, post restructuring and privatisation, the Commission would like to clarify that it monitors the performance of the licensees on a regular basis with the objective of improving the quality of service and the Commission has issued several regulations namely Performance Standards (Metering and Billing) Regulations, Complaint Handling Procedure, Schedule of Miscellaneous charges, to provide the consumers with an opportunity to register their views in the matter. It may not be out of place to mention that the Commission has established Grievances Redressal Mechanism on June 10, 2003 to handle the complaints received from the consumers. The Commission has designated three Grievance Redressal Officers (GROs), one for each DISCOM for handling the billing complaints. Till date, the Commission have received 600 complaints from various consumers and most of these complaints have been resolved with the help of GROs.

Further, In accordance with the provisions of Section 42 (5) of the Electricity Act 2003, a Forum is being established soon to address the grievances of the consumers and the consumers should come forward with the metering and billing related issues for redressal of grievances.

Further the Commission will also appoint an Ombudsman to settle the grievances of any consumer who is aggrieved by non-redressal of his grievances by the Forum. The Commission will detail out the time frame and the manner in which these grievances will be addressed.

### **2.27.4 Compliance with Directives**

The Commission would like to inform the respondents that it monitors the Petitioners' compliance with the directives at periodic intervals. The status and details of compliance by the Petitioner on the directives issued vide the Commission's Order dated June 26, 2003 has been elaborated in Chapter 7 of this Order. The Commission in this Order has also issued some new directives, which are also discussed in Chapter 7 of this Order.

### **2.27.5 AT&C Loss**

#### **2.27.5.1 Policy Directions on AT&C loss**

The Commission would like to highlight that the Policy Directions required the Commission to determine the opening level of AT&C loss for each DISCOM through an Order, which were to be the opening levels of AT&C losses for the purposes of bidding. The base levels of losses for each DISCOM was determined by the Commission vide its Order of February 22, 2002. The Policy Directions further indicated that the AT&C loss for the purpose of tariff computation by the

Commission for each DISCOM in a year shall be based on the opening AT&C loss and the reductions proposed for the year in the accepted bid of the investor selected by the Government for purchase of 51% equity in the Distribution Company. The year-wise loss reduction trajectory that was agreed between the successful investors and Government, at the time of privatisation, forms a part and parcel of the Policy Directions issued by Government. The Policy Directions also stipulate the mechanism for treatment of under-achievement and over-achievement of loss reduction with respect to the accepted bid levels and minimum levels specified by the Government. The Commission would also like to clarify that the 16% return on equity is subject to the achievement of AT&C loss reduction committed by the Distribution Companies during the year. Any under-achievement in relation to the bid level shall be to the account of the Petitioner. The losses for each of the five years beginning FY 2002-03 for tariff determination purposes has, thus, been laid out very clearly in the Policy Directions and are binding on the Commission. The Commission, therefore, does not have any further view in this matter.

#### **2.27.5.2 Actual AT&C loss**

The Commission would like to highlight that the Commission in its Order on ARR for FY 2002-03 and FY 2003-04 has considered the actual AT&C loss of the Petitioner and since there was over-achievement in the AT&C loss reduction during FY 2002-03 by 0.15%, the Commission considered the actual AT&C loss for estimating the ARR for FY 2002-03.

Further, while processing the ARR and Tariff Petition for FY 2004-05, the Commission has obtained the details of actual AT&C loss reduction during FY 2003-04. During FY 2003-04, there is again an over-achievement in AT&C loss reduction in the case of the Petitioner with respect to the bid level by 0.94%.

#### **2.27.5.3 Pace of AT&C loss reduction**

The Commission also agrees with the view of certain respondents that the reduction in losses should be higher during the initial years, since the base level losses are very high. As a matter of fact the Commission in its first Tariff Order issued on May 23, 2001, has made the observation that *"Another important observation as made out from the graphic representation is that the rate of loss reduction is much higher in the initial years ranging between 5 to 6% per annum and the same stands to stabilise after it has reached the saturation limits nearing the acceptable level of technical losses. It is also noted that the rate of loss reduction depends upon the base level of T&D losses prevailing at the time of restructuring"*.

It may be informed that some improvement can be noticed in AT&C loss reduction, as during FY 2002-03, there was marginal over-achievement with respect to Bid level AT&C loss reduction, and in FY 2003-04, the Petitioner has over-achieved with respect to the Bid level AT&C loss reduction.

Further, it may be highlighted that significant investments under the APDRP scheme, along with other capital investments and R&M expenditure were not envisaged at the time of bidding. This

includes other system augmentation and commercial loss reduction measures on account of energy audit activities like metering and billing, consumer coding, feeder and Distribution Transformer (DTR) metering, part outsourcing of metering and billing. The Commission expects that the investments made during FY 2002-03 and FY 2003-04 and the investments proposed during FY 2004-05 will result in substantially higher AT&C loss reduction than the target of 17.60% to be achieved during the five-year period.

#### **2.27.5.4 Methodology for computing AT&C loss**

With regard to exclusion of DMRC consumption while computing the AT&C losses, the Commission is of the opinion that any change in sales mix amongst consumer categories including new consumer categories will have some impact on the AT&C losses. However, it will not be feasible to consider the impact of change in sales mix with respect to sales mix at the time of determining opening level of AT&C losses, as the sales mix will undergo change every year making the process a tedious and complicated one.

#### **2.27.6 ARR and Revenue Gap**

##### **2.27.6.1 Scrutiny of expenditure and revenue components**

The Commission would like to clarify that it has critically examined all the elements of expenditure and revenue, and has not merely gone by the actual expenses as per the audited accounts of the Petitioner. The Commission considered the prudence of expenditure projected by the utilities, the actual expenditure in FY 2003-04, as well as the committed Government support, while determining the revenue requirement and the category-wise tariffs to meet the revenue requirement. Detailed analysis of all the expenditure and the revenue components for their prudence, and the methodology of projection adopted by the Commission, has been provided in the relevant sections of Chapters 4 and 5, respectively.

As regards inclusion of certain expenses in the revised estimates for FY 2003-04 by the Petitioner, which were disallowed by the Commission in its Order, the Commission would like to clarify that the expenses disallowed by the Commission such as higher rate of depreciation, deferred tax, etc. have not been considered by the Commission while estimating the revenue gap. All the heads of expenditure and revenue have been critically examined while determining the ARR as discussed in Chapters 3 and 5.

##### **2.27.6.2 Revenue Gap and Tariff Determination**

As regards the concerns raised by the respondents relating to expenses and Revenue Gap estimations/projections of the Petitioner, the Commission has already elaborated on this aspect earlier. The Commission reiterates that the Bulk Supply Tariff (BST) and Retail Supply Tariffs (RST) have been determined in line with the Policy Directions of the Government. The Commission has explored various practical means of bridging the revenue gap, before deciding the extent of

revenue gap to be met through increase in tariffs. The Tariff Philosophy adopted by the Commission in the context of Policy Directions has been elaborated in Chapter 4 of the Order.

#### **2.27.7 Power Purchase Expenses**

As regards the suggestion of PHD Chamber of Commerce and Industry regarding co-ordination between TRANSCO and DISCOMs for proper planning and estimation of the energy requirement, to enable procurement of adequate power, the Commission would like to clarify that during the ARR process, it arranged a joint meeting with TRANSCO and DISCOMs on April 30, 2004 and directed them to co-ordinate with each other, on aspects related to the Capital Investment Plan and total energy requirement. Subsequently, the TRANSCO after discussions with the DISCOMs submitted the total estimated energy requirement for FY 2004-05, which has been considered by the Commission.

As regards the objection that the total energy requirement of DISCOMs has not shown much growth despite the increase in demand rightly so as the additional energy required to meet the increase in demand is met by reduction in losses and hence no significant increase in energy input has been estimated despite increase in the demand.

#### **2.27.8 Depreciation charges**

The Commission has deliberated on this issue in detail in its Orders on ARR and Tariff Determination for FY 2002-03 and FY 2003-04. The Commission has adopted a rational approach in this regard and has allowed depreciation on the basis of the straight-line method of depreciation linked to useful life of the assets, instead of accelerated depreciation rates proposed by the Petitioner. Further, the Commission in its previous Orders has deliberated on the utilisation of amount available through depreciation for meeting the working capital requirement and capital investments in the absence of loan repayments. The extent of depreciation allowed by the Commission and its utilisation has been discussed in detail in Chapter 3 of the Order.

#### **2.27.9 Investments**

The Commission has held detailed discussions with the DISCOMs and scrutinised the investments already made as well as the investments proposed to be made by the DISCOMs. The Commission has also conducted sample checks on the investments – starting from the material procurement process to installation of equipment and issue of completion certificates. The Commission appreciates the concerns expressed by different objectors regarding the high capital expenditure proposed by the Petitioner and the impact it can have on the retail tariff. Therefore the Commission obtained details with respect to scheme-wise investment proposed by the Petitioner, details of actual investments undertaken during FY 2003-04, and the Petitioner's preparedness for executing the works proposed under the capital investments for FY 2004-05 and the same was duly

considered while determining the capital investments for the purpose of determination of the Annual Revenue Requirement (ARR) as mentioned in Chapter 3 of the Order.

The Commission would also like to clarify that the capital investments are not included under revenue expenditure. In the revenue expenses, only the capital expenditure related charges, i.e. interest payable on the loans as well as the depreciation have been considered.

#### **2.27.10 Employee Expenses and Voluntary Retirement Scheme (VRS)**

The Commission has examined the employee expenses projected by the Petitioner and the actual employee expenses for FY 2003-04, while estimating the employee expenses for FY 2004-05.

As regards the VRS, the Commission would like to clarify that it has not considered the additional expenses of the Petitioner on account of VRS in the ARR and this expense has been considered such that it is tariff neutral to the consumers. The Commission has amortised the additional expenses on account of VRS through the savings in the employees cost in the future years. Therefore, the Commission has not considered the additional expenses of VRS in the ARR. The additional expenses of VRS will be met through savings in employee expenses and this savings will not be considered in ARR till the cumulative savings becomes equivalent to additional VRS expenses including the carrying cost. As estimated by the Commission based on the details of savings in employee costs as provided by the Petitioner, the payback period of VRS expenses works out to 3.5 years. Therefore, the savings in employee costs due to VRS will be considered in the ARR after 3.5 years.

The total employee expenses allowed by the Commission and the treatment of VRS expenses has been discussed in detail in Chapter 3 of the Order.

#### **2.27.11 Other Expenses**

The Commission has examined all the components of other expenses projected by the Petitioner and the actual other expenses in FY 2003-04 while approving the other expenses. The details of other expenses have been deliberated in Chapter 3 of the Order.

#### **2.27.12 R&M Expenses**

The Commission has analysed all the components of R&M expenses projected by the Petitioner and the actual R&M expenses in FY 2003-04 while approving the R&M expenses. Further, as mentioned in earlier Sections, the Commission staff undertook field visits in Petitioner's license area at some select locations to review the physical progress of the Capital Works and Repairs and Maintenance works. The details of R&M expenses have been discussed in detail in Chapter 3 of the Order.

**2.27.13 A&G Expenses**

The Commission has examined the A&G expenses projected by the Petitioner and the actual A&G expenses for FY 2003-04 while approving the A&G expenses. The details of A&G expenses have been deliberated upon in Chapter 3 of the Order.

As regards non-inclusion of dues payable by the DISCOMs to MCD in the A&G expenses by the Petitioner, the Commission would like to clarify that this is a matter of dispute between MCD and the DISCOMs and hence this matter is to be resolved amicably between MCD and DISCOMs. However, in any case, such huge quantum of outstanding MCD dues cannot be considered as part of A&G expenses to be allowed in the ARR as this will result in substantial increase in the revenue gap and hence tariff increase.

**2.27.14 Truing Up**

The Commission has obtained the provisional accounts and the actual expenses, sales and revenue data for FY 2003-04 from the Petitioner, and the truing up for FY 2003-04 has been done based on actual data for FY 2003-04 subject to prudence check by the Commission.

**2.27.15 Return on Equity**

The Commission would like to inform that the system of ARR and Tariff determination being followed by the Commission gives due weightage to the efficiency of operations and only prudent expenditure is allowed to be recovered through tariffs. The paying capacity of the DISCOMs is determined after considering the prudently incurred expenses as well as the revenue earned through tariffs. The Policy Directions issued by the Government before privatisation of the DISCOMs clearly lays down that the 16% return is applicable on the equity and free reserves of the DISCOM and hence, the question of reduction in rate of return during the tenure of Policy Directions does not arise at all.

As regards provision of return on opening balance of free reserves or closing balance of free reserves invested in the system, the Commission in its Order on ARR for FY 2002-03 and FY 2003-04 has taken a very rational and balanced view and allowed the return on the average of opening balance at the beginning of the year and the closing balance of free reserves at the end of the year to the extent these free reserves has been considered as means of finance to be invested towards capital investment.

**2.27.16 Income Tax and Deferred Tax Liability**

As regards the Post Tax return allowed to the Petitioners, the Commission would like to clarify that Post Tax Return has been considered in line with the Policy Directions. Clause 13 of the Policy Directions stipulates that the tariffs for the Distribution Licensee shall be fixed in a manner such that, after meeting all expenses that shall be permitted by the Commission, the Distribution Licensees earn at least 16% return on issued and paid up capital and free reserves. The Commission in its last Tariff Order on ARR and Tariff Petitions for FY 2002-03 and FY 2003-04 has allowed the actual income

tax liability and not considered the deferred tax liability in the ARR. The Commission has adopted a similar approach in this Order too. The detailed methodology adopted to estimate the income tax, while estimating the ARR, has been discussed in detail in Chapter 3 of the Order.

#### **2.27.17 Sales and Demand Estimation**

The Commission has obtained the actual category-wise and slab-wise sales details for FY 2003-04 from the Petitioner and has considered the same. For FY 2004-05, the Commission has projected the category-wise demand based on past trends including actual sales during FY 2003-04. The methodology adopted by the Commission for projecting the category wise demand for FY 2004-05 has been discussed in detail in Chapter 3 of the Order.

#### **2.27.18 Treatment of past Arrears Collected**

The Commission would like to clarify that in the Order issued on ARR Petitions for FY 2002-03 and FY 2003-04, the Commission has considered 20% of the past arrears of DVB collected by the Petitioner as non tariff income while estimating the Annual Revenue Requirement. The Commission has adopted the same approach in this Order also. The details of the methodology adopted by the Commission in this regard have been elaborated in Chapter 3 and Chapter 4 of the Order.

#### **2.27.19 Tariff Structure and Tariff Rationalisation Issues**

The Commission's views on Tariff Policy and Tariff Structure have been elaborated in Chapter 4 (Tariff Philosophy) and Chapter 5 (Rationalisation of Tariff) of the Order respectively. Chapter 4 deals with the overall tariff philosophy adopted by the Commission including determination of overall sector revenue gap at existing bulk supply and retail supply tariffs, treatment of AT&C losses, measures proposed to bridge the gap including tariff increase, Regulatory Asset, amortisation of Regulatory Assets, etc. In Chapter 5, the Commission has discussed in detail the various tariff rationalisation measures suggested by the Petitioner and other two DISCOMs, Commission's Views on the suggested measures and the Commission's views on the suggestions made by stakeholders on tariff rationalisation aspects. The issues discussed in Chapter 4 and Chapter 5 includes the following issues on which the response was received from stakeholders:

Fixed Charges

TOD Tariffs

Low Power Factor Surcharge

Late Payment Surcharge

Connected Load

Billing for Unauthorised usage

Clubbing of Connections

#### **2.27.20 Metering and Billing**

Several respondents during the ARR process have highlighted the billing and collection problems in the system. The Commission is concerned about such billing problems in the system and to rectify



such problems the Commission has issued "Performance Standards (Metering and Billing) Regulations" on August 19, 2002. The Commission directs the Petitioner to strictly adhere to the guidelines set in the "Performance Standards (Metering and Billing) Regulations" and improve the billing and collection system. In case there are any lapses on the part of the Petitioner in adhering to these performance standards, then the consumers should come forward and report it to the Commission under the relevant provisions of the Regulations. The Commission has been separately addressing the complaints received from various consumers on billing aspects under the Regulations. The Commission has designated three Grievance Redressal Officers (GROs), one for each DISCOM for handling the billing complaints. The complaint received from consumers is forwarded by GRO to respective DISCOM for resolution.

Further, In accordance with the provisions of Section 42 (5) of the Electricity Act 2003, a Forum is being established soon to address the grievances of the consumers and the consumers should come forward with the metering and billing related issues for redressal of grievances.

Further the Commission will also appoint an Ombudsman to settle the grievances of any consumer who is aggrieved by non-redressal of his grievances by the Forum. The Commission will detail out the time frame and the manner in which these grievances will be addressed.

The Commission agrees with the views of the respondents that the billing, collection and complaint handling procedures should be more consumer friendly. The Commission appreciates the initiatives taken by the Petitioner in this regard and expects that the Petitioner will further improve its system to make the operations more consumer friendly.

#### **2.27.21 Procedure for getting connection and load sanctioned**

These aspects have been covered in the "Performance Standards (Metering and Billing) Regulations". On the specific issue of making new tenants responsible for non-payment of dues by earlier tenants or occupier, the Commission is of the opinion that the existing provisions applicable as per the Regulations are appropriate and does not warrant any modification. However the Commission is in the process of amending its Performance Standards (Metering and Billing Regulations), the draft of which has been published for public response and the stakeholders are expected to respond to the Commission.

As regard to the issue of obtaining MCD license by industrial units operating in Non conforming areas of Delhi for obtaining connections, the Commission in its last Tariff Order dated June 26, 2003 has removed condition of misuse linked to MCD license for the existing connections. However, for new connections MCD license is applicable in lines with the Hon'ble Supreme Court ruling.

#### **2.27.22 Inspection/Raid of Premises**

The Commission would like to clarify that the procedure of Inspection/Raid of Premises has been covered in the "Performance Standards (Metering and Billing) Regulations". However, subsequent

to the Electricity Act 2003, the procedure for inspection/raid of premises shall be governed by Section 126 and Section 135 of the Electricity Act 2003.

### **2.27.23 Quality of Service/Supply**

The Commission in its last Tariff Order has mentioned that with the substantial expenditure towards capital investments and for repairs and maintenance, the companies will be able to achieve substantial progress in improvement in quality and consumer service.

The Commission has analysed the actual capital expenditure incurred by the Companies in Chapter 4 and has noticed that actual capital investments on various distribution schemes by the Petitioner has been much lower the capital expenditure plan approved by the Commission. Due to which, the problems have increased as the load on the system has increased as compared to previous year and in absence of adequate capital investments, the old system has been overloaded, due to which the deterioration rate of the existing assets have increased. Because of these reasons the quality of supply has not improved and the interruptions have not been reduced.

. While Performance Standards have already been notified, the Commission intends to issue Grid Code and Distribution Code as well as a Consumer Charter to ensure minimum quality of supply to consumers.

### **3. Analysis of Annual Revenue Requirement**

#### **3.1 Introduction**

Section 28 (5) of the Delhi Electricity Reform Act, 2000 requires a licensee to provide to the Commission, at least 3 months before the ensuing financial year, full details of its calculation of the expected aggregate revenue from charges for that financial year, which the licensee is permitted to recover pursuant to the terms of its license. The Section further stipulates that the licensee shall also furnish such further information as the Commission may reasonably require to assess the licensee's calculations.

Pursuant to the above stipulation, and consequent to restructuring of the DVB in July 2002, the Commission, in August 2002, issued the revised guidelines for methodologies and procedures to be adopted by the TRANSCO and DISCOMs for filing of ARR. As already explained in Chapter 2, according to the Policy Directions issued by the Govt. of NCT of Delhi, bulk supply tariff for supply of energy from TRANSCO to DISCOMs is required to be determined on the basis of the paying capacity of each DISCOM. The forms contained in the guidelines call for a variety of information/data relating to expenditure, return, various performance parameters, etc.

The Petitioner filed the ARR and Tariff Petition for nine months of FY 2002-03 (July 2002 to March 2003) and FY 2003-04, during November and December 2002, respectively. The Commission after detailed scrutiny of the Petitions and after following due public process, issued the Order on the ARR Petition for FY 2002-03 and FY 2003-04 on June 26, 2003. In this Order, the Commission approved the elements and revenue for FY 2002-03 considering the Provisional Accounts submitted by the Petitioner. For FY 2003-04, the Commission estimated the various components of ARR. The detailed methodology for estimating each element of ARR has been deliberated in the Order.

The Commission in its Order issued on June 26, 2003 has proposed 'truing up' mechanism, under which the Commission has proposed to take up truing-up of the ARR and revenue figures considered in the Order with the actual ARR and revenue after determining the prudence of each component of ARR and Revenues.

The Petitioner in its Petition for FY 2004-05 has submitted the revised estimates for FY 2003-04 and requested the Commission to true up the ARR and revenue based on the revised estimates.

Commission has considered various submissions made by the Petitioner over the course of the ARR and tariff determination process and has carefully analyzed the different heads of expenditure to true up the ARR for FY 2003-04 and to project the realistic level of allowable expenditure during FY 2004-05. The process of ARR determination for FY 2004-05 got extended beyond March 31, 2004, and therefore the Commission obtained the details of actual expenses and revenue for FY 2003-04. As the actual details of expenses and revenue for FY 2003-04 are available based on Audited

Accounts, the Commission has trued up all the elements of ARR based on the actual expenses and income of BYPL after ensuring that the expenses satisfy the test of reasonable prudence. The expenses to be trued up have been discussed while analysing the relevant head of expenditure for FY 2003-04 and FY 2004-05.

### **3.2 Annual Revenue Requirement**

Typically, the Annual Revenue Requirement of the licensee consists of the following major items: -

- a) Expenses: -
  - Employee expenses
  - Administrative and general expenses
  - Repairs and maintenance expenses
  - Interest expenditure
  - Depreciation
- b) Return on Equity
- c) Taxes on Income
- d) Non Tariff Income

### **3.3 Employee Expenses**

#### **3.3.1 Petitioner's Submission**

The Petitioner, in its ARR and Tariff Petition for FY 2004-05, provided the revised estimates for FY 2003-04. The Petitioner has estimated gross employee expense of Rs. 127.77 Crore for FY 2003-04, which is higher than the Commission's approval of Rs. 125.89 Crore. The Petitioner has estimated the employee costs based on the actual expenditure for the first half and the estimate for the balance period has been considered at a normative increase of 4% for most items.

The Petitioner has submitted that this increase is mainly due to the following reasons:

- Recruitment of several professional employees for increased level of activities relating to system improvement and reduction of AT&C losses.
- Increase due to provision of Medical Allowances and Uniform Allowance applicable to employees as per the staff rules for erstwhile DVB employees.

The Petitioner has also submitted that the expenses related to overtime is expected to come down in future due to streamlining of operations, putting into place adequate systems and procedures and productivity norms. The Petitioner has estimated a capitalization of Rs 4.78 Crore for FY 2003-04

based on the cost of employees relating to capital works such as EHV construction, planning and civil construction.

For FY 2004-05, the Petitioner has projected gross employee expenses at Rs. 145.78 Crore. The Petitioner has also proposed capitalization of Rs. 5.45 Crore, thereby resulting in a net employee cost of Rs 140.33 Crore. The employee expenses of FY 2004-05 are about 14% higher than the revised estimates for FY 2003-04.

The Petitioner has submitted that it has also announced a Special Voluntary Retirement Scheme (SVRS) to its employees, and has assumed that 75% of the eligible employees will opt for this scheme. The Petitioner has estimated an outgo of Rs. 160 Crore. The objectives of the scheme as submitted by the Petitioner is to make the organisation lean and more efficient, reduce employee costs, rationalise manpower requirement, and to reduce the age profile of the Organisation to make it adaptable to change.

The Petitioner has submitted that the financial impact of the scheme is proposed to be amortised over a period of next three years, and the scheme is expected to result in reduction of Rs. 47.34 Crore in annual salary expenses. Due to the SVRS, the Petitioner has also included an amortization cost of Rs. 61.95 Crore in FY 2004-05. The net cost of the amortization cost and savings in annual salary expenses when added to the net employee cost, results in a total net employee cost of Rs. 154.94 Crore in FY 2004-05.

The assumptions made by the Petitioner in projecting expenses for FY 2004-05 on some of the critical components of the employee expenses are outlined below:

- Increase in Salary and related components, like DA, other allowances, terminal benefits, etc. assumed to increase at 4 % p.a. based on planned increments and promotions.
- Capitalization based on estimates of employee cost relating to capital works such as EHV construction, planning and civil construction.
- Reduction in medical related expenses due to various steps undertaken to contain the expenses, for example, having employee health check-up in empanelled Hospitals and having tie up with reputed hospitals to whom direct payments shall be made by the Petitioner in the event of hospitalisation, etc.
- Increase in LTA claims.

### **3.3.2 Commission's Analysis**

The Commission has analysed the employee expenses proposed by the Petitioner along with the methodology adopted for estimation of the employee expenses. During the technical sessions, the Commission directed the Petitioner to submit the actual employee expenditure incurred during FY 2003-04. The Commission also directed the Petitioner to submit the details of Voluntary Separation Scheme along with Cost Benefit Analysis.

Accordingly, the Petitioner submitted the details of actual employee expenses for FY 2003-04 and the details of SVRS. The total actual employee expenses for FY 2003-04 as submitted by the Petitioner are Rs 102.17 Crore. The Petitioner also submitted that 1,869 employees availed of SVRS.

Before analysing the Employee Expenses for FY 2003-04 and FY 2004-05, the Commission has analysed the details of SVRS including total outgo due to this scheme, cost benefit analysis of the scheme, proposed treatment of the outgo and savings out of the scheme.

**Special Voluntary Retirement Scheme (SVRS)** - The Petitioner has submitted that it has incurred an actual outgo of Rs. 94.83 Crore towards SVRS. BYPL has submitted that they have not claimed the entire amount of SVRS outgo in the ARR and have taken commercial loans at an interest rate of around 8% with a tenor of 2-3 years, to fund this liability. BYPL has further submitted that in case the SVRS outgo is spread out over a number of years, it will ensure that the consumers do not have to bear any cost over and above the employee expenses that would have been incurred if these employees would have continued. The Petitioner has also considered the increase in salaries, DA and other perks and retirement profile of employees while computing the savings from SVRS. With this, the SVRS cost is expected to be spread over the next 2 years and thereafter the entire savings of SVRS will accrue to BYPL and its consumers. Based on this mechanism of spreading over the SVRS Cost, BYPL has presented to the Commission to consider the total employee costs, based on original number of employees (viz. Pre SVRS) to be allowed in the ARR.

The Commission has assessed following two options of amortization of cost of VRS:

Option 1: Amortization of entire SVRS expense within 1 year

Option 2: Amortization of SVRS expense by spreading it over next 2-3 years through savings in Employee Costs

Before examining these two options, the Commission would like to clarify that the acid test for implementation of any such scheme is that the implementation of scheme has to be tariff neutral to the consumers.

In case of Option 1, if the amortisation of entire SVRS expenses is considered as part of ARR in one year, it will lead to substantial increase in ARR and revenue gap and in turn lead to tariff shock to the consumer. Considering this aspect the Commission in principle agrees with the view of the Petitioner that the entire SVRS outgo of Rs 94.83 Crore cannot be considered in one year ARR and the cost of SVRS needs to be spread over the next 2-3 years.

In case of option 2, the amortisation of SVRS scheme is to be spread over next 2-3 years. The Commission further opines that the expenditure on SVRS, the borrowing cost, and increase in other expenses due to implementation of this scheme, if any, have to be met from the savings in Employee Costs over the future years. With this mechanism, once the cumulative savings on account of reduction in employees are equivalent to the one time SVRS outgo after adjusting for the increase in the other expenses, the savings in employee expenses will be available for the purpose of ARR computations and thus in the tariff to the consumers.

The Commission has carried out the cost benefit analysis of this scheme based on the SVRS expenditure and annual savings projected by the Petitioner. With the implementation of this scheme, there will be savings in employee expenses, but there will be an increase in other expenses, for example, outsourcing of meter reading and billing activities, due to reduction in number of employees. These additional expenses on meter reading and billing will be part of A&G expenses. Based on details submitted by the Petitioner alongwith actual outgo on account of SVRS Scheme, the savings in employee expenses due to implementation of this scheme is estimated to be around Rs. 41 Crore per annum. However, due to outsourcing of meter reading and billing activities, the A&G Expenses will increase by around Rs. 5 Crore per annum. Thus, the net savings per annum due to implementation of this scheme works out to around Rs. 36 Crore. The Commission has worked out the payback period in which the net savings will be equivalent to the SVRS Cost along with its cost of borrowing. Considering the one time SVRS cost of Rs. 94.83 Crore and net savings of Rs. 36 Crore per annum, the pay back period works out to around 3 years. Thus the savings in employee costs will be passed on to consumers through tariffs after 3 years.

Further, during the ARR and Tariff determination process, the DVB Employees Terminal Fund 2002 filed a response on the ARR Petition filed by DISCOMs. In their response they mentioned that the DISCOMs have not consulted the Trust before the declaration of VSS/SVRS and that the Trust had not made any commitment to the DISCOMs to discharge the liabilities arising on these Schemes. The response also mentioned that the Trust has examined the matter in detail and has conveyed to the DISCOMs that the additional burden created by VRS/SVRS for could only be discharged by the Trust on the basis of a suitable compensation for the additional expenditure on this account.

The Trust in their response further mentioned that the NDPL, BRPL and BYPL have not included the liability arising out of VRS/SVRS and have not projected the same in their ARR. According to estimates worked out by the Trust, pending detailed actuarial valuation, the DISCOMs are required to deposit the following amounts to the Trust for enabling disbursement to retiring employees opting for SVRS/VSS.

- NDPL : Rs 242.98 Crore
- BYPL : Rs 236.91 Crore
- BRPL : Rs 316.56 Crore

The Trust submitted that the VRS liability is a legitimate charge on the tariff since it would be a measure designed to improve efficiency and reduce establishment costs over time. The Trust requested the Hon'ble Commission to allow this expenditure of VRS liability as estimated by the Trust while determining the ARR of DISCOMs.

The Commission had invited the Trust to present their views in the matter during the Public Hearing scheduled on April 10, 2004. However, the Trust vide its letter dated April 8, 2004 withdrew their

response on the ARR and Tariff Petition and consequently, had not participated in the Public Hearing on the April 10, 2004.

The Commission understands that this matter of additional liabilities on account of implementation of VRS is yet to be resolved between the Trust and the DISCOMs and that the situation is in a state of flux. The Commission would also like to highlight that the payback period of implementation of VSS scheme has been worked out without considering the Trust Liabilities and in case the Trust liabilities are also to be borne by the BYPL, the payback period may extend beyond 3 years.

Considering the above two options and the issue of additional liabilities on account of SVRS, the Commission has amortised the SVRS expenses during the next 3-4 years. Based on this mechanism, the Commission has projected the employee expenses without considering the costs of SVRS and savings in employee costs due to SVRS. The increase in A&G expense on account of outsourcing of meter reading and billing expenses has also not been considered by the Commission in the ARR. This method of treatment of SVRS outgo and its savings will be beneficial to the consumers, as it maintains the employee costs at prudent levels and will be tariff neutral for around 3 years. After around 3 years, once the net savings in employee expenses are equivalent to SVRS cost along with its holding cost, the substantial reduction in employee expenses will also be passed on to consumers in ARR and tariffs. The methodology adopted by the Commission with respect to treatment of VRS expenses and benefits in the ARR is subject to the final settlement, which may be arrived at between the DISCOMs and the Trust.

The actual employee expenses for FY 2003-04 as submitted by the Petitioner without considering the SVRS outgo and the savings in employee costs due to SVRS are Rs. 114.15 Crore. It is seen that the actual employee expenses of the Petitioner during the FY 2003-04 are lower than the employee costs approved by the Commission in its Order on ARR for FY 2003-04. Therefore the Commission has considered the actual employee expenses for FY 2003-04. The actual employee expenses capitalised during the year are Rs. 2.35 Crore, and the Commission has considered the same while approving the net employee expenses for FY 2003-04.

For estimating the employee expenses for FY 2004-05, the Commission has projected each component of the employee expenses rather than applying a growth rate on the overall employee expenses of FY 2003-04. The critical assumptions made by the Commission with regard to the projections for FY 2004-05 is stated below:

Basic Salary: Considered Merger of part of the DA with basic and a growth of 3% on Basic Salary, which is in line with the GNCTD order, which is applicable to all employees.

Dearness Allowance: Out of prevailing DA @ 59% of Basic, DA equivalent to 50% of Basic has been merged with Basic. DA of 11% of Basic as per prevalent rates has been considered for FY 2004-05.

Terminal Benefits - 26% of the Basic+DA.

Other Allowances: Considered as proportion to the Basic, as these components are linked to the Basic Salary.



Other components: Other heads such as staff welfare, other allowances, medical reimbursements, and bonus/ex-gratia, considered on proportionate basis based on the actual expenses during FY 2004-05.

Based on the above assumptions, the employee expenses for FY 2004-05 have been approved at Rs. 131.89 Crore as against Rs. 145.78 Crore as proposed by the Petitioner for FY 2004-05. The Commission has considered a capitalization of 10% of gross employee costs.

The Table 3.1 provides a snapshot view of the employee expenses as proposed by BYPL in the Petition and as approved by the Commission.

**Table 3.1 Employee Expenses (Rs. Crore)**

Particulars	FY 2003-04				FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Salaries	60.00	43.16	41.91	41.91	48.35	64.75
Dearness Allowance	23.24	25.33	23.74	23.74	32.39	7.12
Terminal Benefits	28.01	17.81	10.75	10.75	20.99	11.77
Other Costs	14.63	41.47	37.75	37.75	44.05	48.25
<b>Total</b>	<b>125.89</b>	<b>127.77</b>	<b>114.15</b>	<b>114.15</b>	<b>145.78</b>	<b>131.89</b>
less expenses capitalized	12.59	4.78	2.35	2.35	5.45	13.19
<b>Total</b>	<b>113.30</b>	<b>122.99</b>	<b>111.80</b>	<b>111.80</b>	<b>140.33</b>	<b>118.70</b>
Net SVRS Expense					14.61	
<b>Net Employee Costs</b>					<b>154.94</b>	

### 3.4 Administrative and General Expense (A&G)

#### 3.4.1 Petitioner's Submission

The Petitioner, in its ARR and Tariff Petition for FY 2004-05, submitted that against an approved Administrative and General expense of Rs. 10.81 Crore for FY 2003-04, the revised estimates of A&G expenses for FY 2003-04 are Rs. 21.00 Crore. The Petitioner has submitted that this increase is mainly due to the following reasons:

Increase in Insurance costs.

Telephone charges increased on account expenditure expected due to the provision of mobile telephones to all field personnel. Also, the expenses relating to the operation of the call centre for handling no-supply complaints are included.

Consultancy services for business process mapping and development of customer relationship management systems.

The Petitioner has projected an Administrative and General Expense of Rs. 22.99 Crore for FY 2004-05, which is an increase of 9% in A&G expenses over FY 2003-04 revised estimates. The Petitioner has submitted that higher growth rate in the A&G expense for FY 2004-05 has been considered mainly due to following reasons:

Increase in the rents, which are due for renewal in FY 2004-05.

Telephone charges increased on account expenditure expected due to the provision of mobile telephones to all field personnel and higher expenses relating to the operation of the call centre for handling no-supply complaints.

Consultancy services for business process mapping and development of customer relationship management systems.

Growth rate of 15% in other expenses.

In addition to the above A&G expense, the Petitioner has claimed Rs 1.5 Crore and Rs 5.0 Crore for FY 2003-04 and FY 2004-05, respectively on account of "Retirement of assets during the year". The Petitioner has submitted that it has replaced and retired assets, which have ceased to be of productive use but having a residual life and value in the books of accounts.

#### **3.4.2 Commission's Analysis**

During the technical validation sessions, the Commission had asked the Petitioner to submit actuals for FY 2003-04. The Petitioner has submitted the actual A&G Expenses for FY 2003-04 as Rs. 20.87 Crore. The Petitioner has additionally indicated Rs. 0.35 Crore towards Bank Charges. Thus the actual A&G expense of the Petitioner is Rs. 21.22 Crore for FY 2003-04.

The Commission has analysed the various submissions made by the Petitioner and feels that the expenses relating to Consultancy charges are very high. While the Commission welcomes the Petitioner's initiative to improve the system, it feels that the management should not over burden the consumers with business related consultancy expenses. The Commission has considered Rs 2.24 Crore incurred towards survey fees/expenses, study for network optimisation and part of consultancy charges for accelerating operation improvement with a view to reduce losses as a part of capital expenditure as the benefits of such studies/consultancy services would be available to the Distribution System over a longer period. The Commission has limited expenditure on consultancy services charged to ARR such that it does not burden the consumers. In line with the earlier section on SVRS, the expenses relating to meter reading and bill distribution expenses are already considered while estimating the additional cost on account of SVRS, and the Commission has not considered this expenditure, which will anyway be recovered by way of savings in employee costs.

For FY 2004-05, the Commission has considered an escalation of 5% for some of the categories which works out to around 4% average escalation on A&G expenses. However as the employees have reduced due to implementation of SVRS, this will lead to reduction in A&G expenses.

Considering the above factors, the Commission has considered A&G Expenses for FY 2004-05 at the same level as that of FY 2003-04.

As regards the claim of loss on retirement/sale of assets, the Commission till date has not prescribed any guidelines for treatment of loss on retirement/sale of assets as this is the new issue, which has emerged in this ARR Petition. The Commission would like to clarify that before allowing the loss due to retirement of assets prior to completion of useful life, a detailed examination regarding the justification for each and every asset item retired prior to useful life is essential to be carried out. Considering the magnitude of assets that needs potential replacement and its future implications and time lag involved in detailed examination of each asset, the Commission would examine the matter separately after the issue of the Tariff Order. For the purpose of ARR computation, the Commission has not considered loss on retirement/sale of assets as an expense and the Commission based on its decision on the aspect after detailed examination will consider the impact during the truing up process.

Table 3.2 provides a summary of A&G expenses as proposed by the Petitioner and as approved by the Commission.

**Table 3.2 Administrative and General Expenses (Rs. Crore)**

Particulars	FY 2003-04				FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
<b>Total A&amp;G Expense</b>	10.81	21.00	21.22	12.11	22.99	12.11
<b>Loss on retirement/sale of assets</b>	0.00	1.50	0.00	0.00	5.00	0.00

**The Commission directs the Petitioner to take a prior approval for any increase in A&G expenses during the FY 2004-05 beyond A&G expenses approved before committing/incurred an expense.**

### **3.5 Capital Investment & Repair & Maintenance Expenses**

In its Order on ARR and Tariff for FY 2002-03 and FY 2003-04, the Commission has emphasized upon the substantial improvement required for strengthening the system through combination of capital works and R&M works. The Commission has also elaborated that the substantial R&M works were essential to meet the need of the hour in short term, but in long term, the system improvement will be achieved through Capital Investments. The Commission also opined that the execution of capital works would result in strengthening the distribution system, which in turn will call for lesser R&M works.

Notwithstanding the shortfall in the capital expenditure during FY 2003-04 with the initiatives taken over the past 2 years and capital investments of Rs. 142 Crore during past two years (FY 2002-03 and FY 2003-04), some improvements have already been achieved. Further, with the substantial investments proposed during FY 2004-05, the Commission expects that the execution of capital works will result in further strengthening the distribution system, and thereby resulting in reduction in R&M expenses. For instance, the frequent transformer failures require more R&M works, but with the replacement/augmentation of transformers under various capital works schemes, the rate of transformer failure will fall, thus reducing the overall value of R&M works. The Commission expects that the benefits of the capital investment made till FY 2003-04 would have already started flowing. The Commission has analysed the R&M Works and Capital Investments submitted by the Petitioner and the same are discussed in the following sections.

### **3.6 Capital Investments**

#### **3.6.1 Petitioner's submission**

The Petitioner has estimated an investment of Rs. 325.16 Crore for FY 2003-04 against the investment of Rs. 335.50 Crore considered by the Commission in the ARR and Tariff Order dated June 26, 2003 (ARR and Tariff Order).

During the Technical Sessions, the Commission directed the Petitioner to submit the status of actual capital expenditure made during FY 2003-04. Accordingly, the Petitioner has submitted actual investments for FY 2003-04 substantiated by the Audited Accounts. The actual investments carried out during the year as submitted by the Petitioner is Rs. 70.76 Crore.

In its Petition, the Petitioner has proposed an investment of Rs. 1539.20 Crore for FY 2004-05 out of capital investment plan of Rs. 1700 Crore envisaged by the Petitioner for the period FY 2004-05 to FY 2006-07. The Petitioner has proposed to accelerate the entire process of modernisation and augmentation of the system, instead of continuing with the approach of phased investments every year. The Petitioner has opined that a complete revamp and augmentation of the existing system is essential to improve the reliability and quality of supply and to minimise the losses. The Petitioner has stated that gradual improvements in the system would not be the optimal approach. In the subsequent submissions, the Petitioner has submitted that the estimate of capital investment needs to be revised upwards by 15% factoring in the sharp revision of 30% to 40% in the cost of material witnessed during FY 2003-04.

The Petitioner has proposed capital investments in the following areas:

EHV Schemes

HV/LV Schemes

HVDS based electrification projects  
 LT Cleanup Projects  
 Installation of capacitor banks  
 Installation of Supervisory Control and Data Acquisition (SCADA) systems  
 Development and installation of Geographical Information Systems (GIS)  
 Metering, IT and Communications

The investments proposed by the Petitioner for FY 2003-04 and FY 2004-05 in the Petition and actual investment carried out by the Petitioner during FY 2003-04 has been summarised in the Table 3.3

**Table 3.3 Investment (Rs. Crore)**

Description	FY 2003-04		FY 2004-05
	Rev. Est. (Petition)	Actual	Petition
Capital investment	325.15	70.76	1539.20
Cost of meters, transformers and switchgear included under R&M expenses		12.34	
Cost of survey fees/consultancy charges included under A&G expenses		2.24	
Total Investments	325.15	85.34	1539.20

### 3.6.2 Commission's Analysis

The Commission has analysed the submissions made in the Petition and the subsequent revisions proposed by the Petitioner with respect to the actual investments carried out during FY 2003-04 and the investment plan for FY 2004-05. The Commission has conducted site visits to verify the submissions made by the Petitioner, check the progress of works and status of completion of works during FY 2003-04. The Commission has held detailed discussions with the Petitioner and scrutinised the investments already made as well as the investments proposed to be made.

The actual investments made by the Petitioner during FY 2003-04 is Rs. 70.76 Crore excluding salary and interest capitalisation as against the investment of Rs. 335.50 Crore approved by the Commission in its Order and the revised estimated investments of Rs. 325.15 Crore as submitted by the Petitioner. For FY 2003-04, the Commission has considered the actual investments made during the year.

Further, as explained subsequently, the Commission has considered the cost of new meters, transformers and switchgears installed against defective meters, transformers and switchgears as a part of the capital investment, and not as R&M expenses. The Commission has also considered part of the survey fees/consultancy charges included under A&G expenses as a part of the capital

investment. Thus, the total investment considered by the Commission for FY 2003-04 is Rs. 85.34 Crore.

The Commission had a meeting with the Senior Management team of the TRANSCO and DISCOMs on April 30, 2004 to understand the reasons for underachievement and emphasise the need for corrective action so as to ensure that the Reform Process achieves the desired objectives.

In the subsequent submissions, BYPL has highlighted the factors that has resulted in shortfall in achievement of the investment target:

Projections for the proposed investment in FY 2003-04 during the ARR and Tariff Petition for FY 2002-03 (9 months) and FY 2003-04 was based on the field information that has not been updated for a long period during the pre-privatisation period. They have ascribed delay in execution of the projects to the unpreparedness of the erstwhile DVB for long-term execution of capital projects.

A number of projects have been delayed due to difficulties in getting land for substations and road cutting permits from the local authorities.

A few EHV projects have been delayed due to non-availability of 66 kV bays at the TRANSCO grid stations.

The Commission is deeply concerned about the substantial underachievement in the progress of the capital works for the second year in succession, and its consequent impact on AT&C loss reduction, system augmentation, load shedding, reliability and safety of the Delhi Power System. In its Order on ARR and Tariff for FY 2002-03 and FY 2003-04, the Commission has emphasised upon the substantial improvement required for strengthening the system through combination of capital works and R&M works. The Commission recognises that the system improvement will be achieved only through capital investments in the longer term.

The Commission is concerned about the impact of substantially high capital investment proposed for FY 2004-05 by the Petitioner by advancing the capital expenditure of future years to FY 2004-05, on the tariff to the consumers. For assessing the need, prudence and viability of the investments, the Commission had directed the Licensees to submit the scheme-wise details, preparedness and the cost benefit analysis of the capital investment proposed in FY 2004-05. However, the Licensees have complied only partly with the information requirement. In the subsequent submissions, the Petitioner has submitted the partial scheme-wise details and Detailed Project Reports for some of the proposed schemes of investments for FY 2004-05.

Based on the Comprehensive Study Report on Transmission and Sub-transmission System prepared by CEA, the Commission recognises the need for substantial investment in the Delhi Power Sector.

In addition to establishing the need for investment, the Commission has to also consider the feasibility of implementing the proposed investments to ensure that the system benefits from the proposed investments and does not get loaded with the cost of delayed/incomplete investments. Over the past 2 years, the actual record of accomplishment of the Petitioner in implementing

investment schemes does not prima-facie impart confidence on the part of the Petitioner to implement the proposed investments.

In terms of its preparedness to execute the capital investments, the Petitioner has however submitted that it has undertaken and completed a detailed network optimisation study with the help of internationally reputed agencies, viz., ABB and Alstom, for following an integrated approach towards capital investment. The Petitioner has mentioned that it is geared up for accelerated and timely execution of the projects. The Petitioner has also submitted broad status of preparedness for execution of projects. During the Technical Sessions, the Commission directed the Petitioner to submit the Report on Network Optimisation Study carried out by ABB and Alstom. However, the Petitioner has submitted a Report on Network Upgradation based on an in-house review and study of the results of the Network Optimisation Study carried out by ABB and Alstom.

In the subsequent submissions, the Petitioner has stated that the higher costs due to the accelerated investment as against phased investment would be recovered through a higher reduction in AT&C losses over and above the committed levels. The Petitioner has indicated that it has proposed an investment of Rs. 369 Crore towards reduction of AT&C loss, out of the total proposed investment of Rs. 1558 Crore. BYPL has estimated the benefit on this account as Rs. 23 Crore in FY 2004-05, Rs. 72 Crore in FY 2005-06, Rs. 115 Crore in FY 2006-07 and Rs. 117 Crore in subsequent years. The Petitioner has further proposed that the differential higher expenditure on account of accelerated investment as compared to the normative expenditure be carried forward as a regulatory asset in case the realization of financial benefits in the initial years is not sufficient to pay-off the entire estimated higher expenditure, as there could be a time lag between incurring of expenditure and resultant improvement. The Petitioner has proposed that the regulatory asset on the books can then be amortised over a period through increase in tariffs based on the normative investment levels. The Petitioner has suggested that the normative expenditure in subsequent years should be based on notional investment that would have been allowed had the Licensees not made the front-ended investment.

The Petitioner has highlighted following other benefits accruing from the investment plan:

Increase in reliability and improvement in quality of power coupled with improved safety and environment friendly infrastructure;

Meeting the growing demand of existing consumers;

Better customer services, making available information to consumers about services and better utilisation of power supply;

Long term benefit of reduction of cost of service.

The Commission has also recognised the need for an integrated and co-ordinated approach between the TRANSCO and the three DISCOMs for a pragmatic Capital Expenditure Plan. CEA has also stressed upon the co-ordinated development of the system. An integrated and co-ordinated approach amongst the TRANSCO and DISCOMs is a must for system augmentation and

improvement to ensure that the benefits of system improvement are available to the end consumer. Any unreliable or weak link in the chain would weaken the entire chain and it is essential that the system improvement should be carried out on a holistic basis. Till the system is augmented at transmission level, substantial capital works towards augmenting the system at distribution level will not result in substantial benefits to the consumers. The Petitioner has accordingly submitted additional details of the proposed capital investment during FY 2004-05 after discussions with TRANSCO wherever relevant.

Considering the present status of preparedness of the proposed investment and need for integrating the implementation plan, the Commission is of the opinion that it is not prudent to allow the full investments as proposed by the Petitioner. Hence, the Commission has approved the investment plan at the normative level. For arriving at a normative level of capital investment, the Commission has considered approved investment for FY 2003-04 through previous Tariff Order, actual investment during FY 2003-04 and proposed investment for FY 2004-05. The Commission expects that the balance portion of the approved APDRP schemes will be completed in FY 2004-05.

If the Petitioner is able to implement the investment beyond the approved normative level during FY 2004-05, then the differential cost arising out of such investments would be allowed during truing up to the extent they are compensated by the associated financial benefits. Any additional cost arising of such investments beyond the limit of associated financial benefits would be considered as a regulatory asset. Such regulatory assets would be amortized through future financial benefits arising out of such investments.

The Commission would also like to highlight 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 directs the Petitioner to submit the complete DPR along with cost-benefit analysis for schemes more than Rs. 2 Crore for obtaining the scheme-wise investment approval from the Commission as per the terms and conditions of the License for Distribution and Retail Supply of Electricity within a month from the date of the issue of this Order. The Commission further directs that the Petitioner should submit a separate Petition for approval of schemes for FY 2005-06, by September 2004.**

**The Commission reiterates its direction to the Petitioner to submit the quarterly progress report of investments.**

Notwithstanding the above directive, the Commission, in principle, agrees with the schemes suggested by the Central Electricity Authority (CEA) in the Comprehensive Study Report on the Transmission and Sub-transmission System of Delhi. To ensure that there is no delay in implementation of the capital investment, the Petitioner may take up the schemes suggested by CEA as well as those approved under the APDRP schemes which are required to be commenced



pending an approval of the Commission. However, the Petitioner should ensure to take post facto approval of the Commission for all such schemes initiated/executed by him.

**In line with the recommendation of the CEA, the Commission directs the Petitioner to form a Steering Committee with one member as the Commission's Representative, within 7 days of the date of issue of this Order. The Steering Committee would be responsible for developing an integrated and consolidated implementation plan and monitoring thereof. The Commission directs the Petitioner to submit the consolidated plan within 15 days of the date of issue of this Order and submit quarterly monitoring reports thereafter.**

The summary of the investments proposed in the Petition and as considered by the Commission for FY 2003-04 and FY 2004-05 is provided in the Table 3.4.

**Table 3.4 Capital Investment (Rs. Crore)**

Description	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission*	Petition	Commission
Total Investments	335.50	325.15	85.34	1539.20	547.66

\* Includes Rs. 70.76 Crore of investment, Rs. 12.34 Crore of meters, transformers and switchgear shifted from R&M expenses to capital expenditure and Rs 2.24 Crore of survey fees/consultancy charges shifted from A&G expense to capital expenditure.

### **3.7 Repairs and Maintenance (R&M)**

#### **3.7.1 Petitioner's Submission**

The Petitioner in its ARR and Tariff Petition for FY 2004-05, submitted that against an approved R&M expense of Rs. 31.31 Crore for FY 2003-04, the revised estimates for FY 2003-04 are Rs. 38.08 Crore. The Petitioner has submitted that the increase is primarily attributable to increase in the total network coverage area and increase in the installed transformation capacity.

The Petitioner has initiated a major drive for cleaning of the data base, outsourcing of meter readings, downloading of information and analysing the data which shall help the Company in understanding the consumer Demand Curve better, identifying any sudden spike or dip in consumption and plan its system augmentation capacity accordingly apart from improving its Billing & Collection efficiencies, thereby reducing AT&C losses. The Petitioner further submitted that the certain activities such as checking of meters, etc. are being carried out pursuant to the Commission's Guidelines.

The Petitioner has, in its ARR and Tariff Petition for FY 2004-05, projected Repairs and Maintenance Expense of Rs. 41.14 Crore for FY 2004-05. The Petitioner has projected an increase of 8% in R&M expenses over FY 2003-04 revised estimates. The Petitioner has submitted that this increase is mainly

due to increase in expenditure resulting from inflation and the resultant escalation in cost of materials and labour.

### **3.7.2 Commission's Analysis**

During the technical validation sessions, the Commission had asked the Petitioner to submit the details of actual R&M expenditure incurred during FY 2003-04. The Petitioner has submitted the actuals for FY 2003-04 as Rs. 47.14 Crore which includes an expense of Rs. 6.81 Crore for purchase of meters and Rs. 5.52 Crore towards transformers and switchgear related repairs and replacement.

The Commission, in its ARR and Tariff Order for FY 2003-04 dated June 26, 2003, had directed the Petitioner to provide quarter wise details of the R&M activities as under:

***"The Commission directs the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The Report on transformer failure rate should also be submitted on a quarterly basis along with the above data on the R&M items issued."***

The Petitioner, in its Petition, has submitted the details of actual R&M works carried out till the end of September 2003, together with the record of items issued from the stores for R&M works. In a subsequent submission dated May 6, 2004, the Petitioner has submitted the list of major materials drawn from the stores for the period from July 2003 to March 2004 along with the quantity. The Petitioner has partially complied with this directive of the Commission and has not submitted the records of the items issued from the Stores for R&M works, actual R&M works carried out and the report on transformer failure rate on quarterly basis to the Commission.

The Commission has examined the details of R&M works carried out during FY 2003-04 in detail. Based on the break-up of actual R&M expenses as submitted by the Petitioner, the Commission has noticed that the Petitioner has included replacement of meters, replacement of transformers and switchgears as a part of the R&M expenses.

As regards the meters replaced against defective meters, the Commission is of the opinion that as new meters have been installed, the cost of new meters should be considered in the Capital Investment.

Regarding replacement of transformers and switchgear, the Commission opines that ideally the defective transformers should be replaced with repaired transformers and not with new transformers. As new transformers have been put in use, the cost of these new transformers should be considered as a part of the Capital Investment and not part of R&M works.

Accordingly, the Commission has considered the cost of around Rs. 12.34 Crore towards new meters, transformers and switchgear in the Capital Investments for FY 2004-05 and accordingly reduced the R&M Expense as proposed by BYPL.

In absence of the quarter-wise details of list of materials issued from stores towards R&M works and details of actual R&M works and considering the shifting of certain component of R&M works to Capital Investments, the Commission has restricted the R&M expenses for FY 2003-04 at Rs. 31.31 Crore as approved by the Commission in its previous ARR and Tariff Order.

As discussed in previous section on Capital Investments and R&M works, the Commission expects that with the execution of capital works under the various schemes, the extent of R&M works will decrease over a period, thus reducing the R&M expenses. Considering this aspect, the Commission believes that with the investments made in previous two years and the investments proposed during FY 2004-05, the R&M expenses should reduce during FY 2004-05 as compared to R&M expenses during FY 2003-04. Considering this aspect, the Commission for FY 2004-05 has considered the R&M expenses at Rs. 31.31 Crore, at the level of R&M expenses approved for FY 2003-04.

**The Commission further directs the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The Report on transformer failure rate should also be submitted on a quarterly basis along with the above data on the R&M items issued.**

**The Commission directs the Petitioner to clearly demarcate expenditure related to replacement of meters, transformers and switchgears and include the same in capital expenditure in future submissions.**

**The Commission also directs the Petitioner to take a prior approval for any increase in R&M expense during FY 2004-05 beyond the approved R&M expense before committing/incurred an expense.**

Table 3.5 provides a summary of R&M expenses as proposed by the Petitioner and as approved by the Commission.

**Table 3.5 Repairs and Maintenance Expenses (Rs. Crore)**

Particulars	FY 2003-04				FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
R&M as per Petitioner			47.13			
Part of Capital Expenditure			12.34			
<b>Total</b>	31.31	38.08	34.79	31.31	41.14	31.31

### 3.8 Asset Capitalization

#### 3.8.1 Petitioner's Submission

In its Petition, the BYPL has proposed to capitalise around 80% of the investments made during each of FY 2003-04 and FY 2004-05 in the same financial year. The asset capitalisation proposed in the Petition is Rs. 296.05 Crore and Rs. 1318.70 Crore during FY 2003-04 and FY 2004-05 respectively.

In the subsequent submissions made by the Petitioner, the actual assets capitalised during FY 2003-04 have been reflected at Rs. 64.25 Crore.

#### 3.8.2 Commission's Analysis

The Commission has analysed the asset capitalization proposed in the Petition and the subsequent submissions made by the Petitioner. For FY 2003-04, the Commission has considered actual asset capitalisation as per the Audited Accounts inclusive of capitalisation of interest expense. Further, the Commission has also considered the capitalisation of new meters, transformers and switchgear (considered by the Commission as a part of capital investment) as these replacements have already been made. The Commission has considered capitalisation to the extent of Rs. 78.82 Crore for FY 2003-04. Actual asset capitalisation pertaining to new investments as a ratio of new investments undertaken during FY 2003-04 works out to around 42%.

For FY 2004-05, capitalization has been considered based on the assumption that the Capital Works in Progress (CWIP) carried forward from FY 2003-04 will be fully capitalised during FY 2004-05 and 60% of the new investments proposed during FY 2004-05 will be capitalised during the year. Based on these assumptions, the Commission has considered capitalisation to the extent of Rs. 377.30 Crore during FY 2003-04.

The Commission has considered the opening block of fixed assets for FY 2003-04 as per the opening block of fixed assets approved for FY 2003-04 in the Tariff Order for FY 2003-04 as the Commission has considered capitalisation of meters in FY 2002-03.

For FY 2003-04, the Commission has not considered the retirement of fixed assets, as the Petitioner has not retired any assets during the year as per the Audited Accounts submitted by the Petitioner. For FY 2004-05, the Commission has considered the retirement of fixed assets as per the revised projection submitted by the Petitioner. However, the treatment of retirement of assets has to be examined as detailed in earlier Section of the Chapter.

The summary of the asset capitalisation and closing balance of original fixed assets at the end of the Financial Year as proposed in the Petition and as considered by the Commission are summarised in the Table 3.6.

**Table 3.6 Asset Capitalisation (Rs. Crore)**

Description	FY 2003-04	FY 2004-05
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	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Opening balance of fixed assets	382.70	367.88	382.70	662.43	461.52
Addition during the year	312.13	296.05	78.82	1318.70	377.30
Retirement during the year	0.00	1.50	0.00	5.00	6.48
Closing balance of fixed assets	694.83	662.43	461.52	1976.13	832.35

### 3.9 Depreciation

#### 3.9.1 Petitioner's submission

The BYPL has proposed depreciation charges in accordance with the depreciation rates specified as per the Ministry of Power Notification 1994 on depreciation norms. The Petitioner has considered depreciation expense on the assets capitalised during the year in accordance with the Companies Act, 1956.

Based on these principles, the Petitioner has proposed the depreciation charges at Rs. 28.11 Crore for FY 2003-04 and Rs. 50.79 Crore for FY 2004-05.

**Table 3.7 Depreciation (Rs. Crore)**

Description	FY 2003-04		FY 2004-05
	Rev. Est. (Petition)	Actual	Petition
Depreciation expense	28.11	31.96	50.79

The Petitioner has considered the utilisation of depreciation in the same priority order as per the Table 3.8 of the Tariff Order for FY 2003-04. The Petitioner has estimated working capital requirement of Rs. 33.53 Crore and Rs 49.06 Crore for FY 2003-04 and FY 2004-05 respectively and has accordingly proposed to utilise entire depreciation for funding of working capital.

#### 3.9.2 Commission's Analysis

The Commission has adequately discussed the issue of depreciation in its Tariff Order dated June 26, 2003. In its Tariff Order, the Commission had observed following:

From an accounting perspective, Depreciation is a charge to the Profit and Loss account and represents a measure of the wearing out, consumption or other loss in value of an asset arising from use, efflux of time or obsolescence through technology and market changes. From a regulatory perspective, depreciation is a small amount of the original cost of the capital assets, built into the tariff computation every year with a view to providing the utility a source of funding to repay instalments of debt capital. As the asset is used over its operational life, Depreciation is proportionately charged over the useful life of the asset.

### **3.9.2.1 Asset Block on which depreciation is applicable**

As set out in its Tariff Order dated June 26, 2003, the Commission has allowed the depreciation expenditure only on the Gross Fixed Assets at the beginning of the year, in line with the Schedule VI of the Electricity (Supply) Act.

In the BST Order of February 22, 2002, the Commission had directed the DISCOMs and the TRANSCO to submit the details of the GFA and CWIP in the opening balance sheet of DISCOM within one month of the issue of the Order. The Petitioner has submitted the Fixed Assets Register (FAR) on May 27, 2003 and finalised the summary report on July 21, 2003. The Petitioner has clarified through letter dated September 16, 2003 that no details have been provided to the Commission, as there was no Opening CWIP transferred to BYPL as on July 1, 2002 in the opening Balance Sheet. The Commission is of the view that the organizations like erstwhile DVB would possibly have some capital work in progress, which would have been transferred to the DISCOMs concerned. Accordingly, the Commission vide its letter dated October 27, 2004 has requested the GNCTD to confirm the stand taken by the DISCOM that there were no capital works in progress on the date of transfer. The Commission, vide letter dated April 20, 2004, has requested the Government to expedite the matter and provide the comments of the Government on the matter to the Commission urgently. However, the Commission has not received any response from the Government till date.

The FAR submitted by the Petitioner is on the basis of the business valuation, on the basis of which the opening balance sheets of the successor entities of DVB were prepared and FAR does not provide the historical cost for various categories of assets. In the absence of details of CWIP and availability of historical cost for various categories of Assets, the Commission has continued to provide the depreciation considering the opening block of gross fixed assets as on July 1, 2002 based on the Transfer Scheme. Accordingly, the Commission has computed the depreciation expense for FY 2003-04 based on the GFA arrived at by considering the GFA as on July 1, 2002 and the assets capitalised during FY 2002-03. For FY 2004-05, the Commission has computed depreciation on the opening GFA as on April 1, 2003, by adding the assets capitalised during FY 2003-04.

### 3.9.2.2 Depreciation Rate

In its Tariff Order of June 26, 2003, the Commission adopted the methodology of depreciating the asset upto a cumulative 90% uniformly over the entire useful life of the asset. This will avoid front loading of tariffs while at the same time ensuring necessary cash flow to the licensees over a long period of time.

The Commission had mentioned in its Tariff Order dated June 26, 2003 that "The Commission has hence considered the depreciation rate as 3.75% for the purposes of this ARR. The Commission is of the view that in the future, the depreciation computed at the rate of 3.75% may be higher or lower than the rate based on the actual FAR, and is of the opinion that this can be adjusted against the actual depreciation chargeable, under the truing up mechanism."

In the absence of details of CWIP and the historical value of various categories of the assets, the Commission has continued to use the depreciation rate at 3.75% for the purposes of the ARR considering the average fair life of the lines and cables network at distribution voltages as 25 years.

The Commission is of the view that as depreciation is a non-cash expenditure and there is no scheduled loan repayment, the reduction in the depreciation expenditure will not affect the Petitioner's operations as all legitimate and prudent expenditure is being considered for the purposes of determination of the ARR. Accordingly, the Commission has continued to use the depreciation rate of 3.75% for the purposes of the ARR.

The Commission has further explained the methodology for allowing a higher depreciation for repayment of loans in its Tariff Order dated June 26, 2003, which has been reproduced below for reference:

*"It therefore follows that when the loan repayment commences in future, then the Petitioner may require higher cashflow to meet the repayment obligations. In such case, the Commission opines that it would be appropriate to consider various mechanisms to enable building in a higher cashflow, including an advance against depreciation."*

The Table 3.9 provides a summary of the Depreciation as proposed by the Petitioner and as approved by the Commission for FY 2003-04 and FY 2004-05.

**Table 3.9 Depreciation (Rs. Crore)**

Description	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Original cost of fixed assets	382.70	367.88	382.70	662.43	461.52
Addition during the year	312.13	296.05	78.82	1318.70	377.30
Retirement during	0.00	1.50	0.00	5.00	6.48

the year					
Depreciation charges	14.35	28.11	14.35	50.79	17.31

### 3.9.2.3 Depreciation Utilisation

As there is no loan repayment liability envisaged by the Petitioner during FY 2003-04 and FY 2004-05, the Commission has considered utilisation of depreciation for meeting the working capital requirement and funding capital investments in line with the priority of utilisation mentioned in the Table 3.8 in its Tariff Order dated June 26, 2003. The priority order of utilization of depreciation has been summarised below:

Loan Repayment, if any

Working Capital Requirement

Capital Investment

The Working Capital Requirement has been estimated by considering two months R&M expenses and one month cash expenses i.e., salary, A&G and R&M expenses.

The utilisation of depreciation as proposed by the Petitioner and as considered by the Commission is summarised in Table 3.10

**Table 3.10 Utilization of Depreciation (Rs. Crore)**

Description	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
For debt repayment	4.34	0.00	0.00	0.00	0.00
For working capital requirement	10.02	28.11	14.35	49.06	17.31
For capital investment	0.00	0.00	0.00	0.00	0.00
Total depreciation	14.35	28.11	14.35	49.06	17.31

## 3.10 Means of Finance

### 3.10.1 Petitioner's Submission

In its Petition, BYPL has proposed to fund capital investment with Rs. 10.67 Crore of Consumer Contribution, Rs. 65.49 Crore for APDRP grant and loan each, Rs. 171.42 Crore of Commercial Debt and Rs. 22.43 Crore of internal accruals/additional equity. BYPL has highlighted that the approval under APDRP scheme is available for capital investment of Rs. 284.24 Crore from Ministry of Power,



Government of India. During the Technical Sessions, the Commission directed the Petitioner to submit the details of actual means of finance availed during FY 2003-04. In the subsequent submissions, the Petitioner has accordingly submitted status of drawal of funds substantiated by the Audited Balance for FY 2003-04. The Petitioner has also highlighted that the first tranche under APDRP scheme was disbursed on September 12, 2003.

In its Petition, the BYPL has proposed funding the capital expenditure out of the APDRP schemes of the Government of India for FY 2004-05. The Petitioner has proposed following means of finance:

- a. 50% of the funding to be arranged from APDRP fund with 25% as grant and balance 25% as loan.
- b. 50% of the funding to be arranged by the Petitioner through a combination of internal accruals, commercial borrowings from financial institutions and other agencies, leasing arrangements with other agencies and fresh equity infusion.

For FY 2004-05, the Petitioner has further submitted that it would arrange funding from the alternate sources in the event APDRP funds are available only for a portion of the capital expenditure. The Petitioner has proposed to arrange funding in such a manner, which would result in a reasonable debt to equity ratio to enable the Petitioner to borrow funds from financial institutions at competitive rates and maintain good credit rating. The Petitioner has mentioned that it has been discussing with Rural Electrification Corporation, Power Finance Corporation and IDBI for commercial borrowings.

In the subsequent submissions, the Petitioner has proposed to fund capital investment with internal accruals, infusion of equity and commercial debt with debt to equity ratio of 1:1 for the new capital expenditure considering that the APDRP funds may not be made available under the current policy

The means of finance for the capital investments suggested in the Petition and the revised means of finance for revised capital investments as submitted by the Petitioner is summarised in the Table 3.11.

**Table 3.11 Means of Finance (Rs. Crore)**

Source of Funds	FY 2003-04		FY 2004-05	
	Rev. Est. (Petition)	Actual	Petition	Revised
Consumer Contribution	10.67	13.91	15.00	15.00
APDRP Grant	65.49	16.22	383.63	0.00
APDRP Loan	65.49	16.22	383.63	0.00
Depreciation	0.00	0.00	0.00	0.00
Internal Accruals	22.43*	22.43	334.65*	0.00
Equity	0.00			772.5

**Table 3.11 Means of Finance (Rs. Crore)**

Source of Funds	FY 2003-04		FY 2004-05	
	Rev. Est. (Petition)	Actual	Petition	Revised
Commercial Debt	171.42	11.04	447.60	772.5
<b>Total Funds</b>	<b>335.50</b>	<b>79.81</b>	<b>1564.50</b>	<b>1560.00</b>

\* Petitioner has proposed to fund through internal accruals and additional equity.

### 3.11 Commission Analysis

The Commission has analysed in detail the Means of Finance proposed by the Petitioner in its Petition and the subsequent submissions.

The Commission has retained the same order of priority of means of finance as adopted in the Tariff Order dated June 26, 2003. The priority of means of finance adopted is as follows:

Consumer Contribution

Unutilised Depreciation considering available unutilised depreciation of the previous years

APDRP Funds available during the year

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

In its revised submissions, the Petitioner has considered drawl of Rs. 32.43 Crore during FY 2003-04 against APDRP funding. The Petitioner has not estimated any drawal of APDRP funds during FY 2004-05. However, the Petitioner has the approval available for APDRP funding to the extent of Rs. 142.12 Crore. The Petitioner has not considered utilisation of balance funds for funding capital expenditure in FY 2004-05.

The tripartite agreement between the GoI, the GNCTD and the Utilities of Delhi has been executed in March 2003. The Commission is of the view that the balance APDRP funds will be available during FY 2004-05. Therefore, the Commission has considered the balance Rs. 109.69 Crore of APDRP funds as available to finance the capital investments during FY 2004-05. The Commission directs the Petitioner to ensure that the progress of investment scheme should not be affected on account of the delayed receipt or non-availability of APDRP funds. The Commission would consider actual interest expense arising on account of delayed receipt or non-availability of APDRP funds while truing up the expenses for FY 2004-05.

The Commission has considered the internal accruals based on normative debt to equity ratio. The Commission has not considered funding of investments through internal accruals for FY 2003-04 as other sources with higher priority of utilization has been able to meet the fund requirement. In case, the return on equity during the year is less than the requirement of funding through internal accrual based on debt to equity ratio of 70:30, the Commission has considered unutilised internal accruals

of FY 2002-03 and FY 2003-04 for funding of capital investments. In the event that internal accrual is not sufficient to meet the requirement of funding through equity and reserves as estimated by the Commission considering the normative debt to equity ratio of 70:30, the Commission has limited the funding from equity and reserves to the extent of internal accruals considering the past unutilised internal accruals. The balance funding is proposed to be met through commercial debt. The Petitioner may approach the Commission with the approval of other shareholders for investing equity to meet the normative debt to equity ratio. Any additional equity investment made by the Petitioner subject to prior approval of the Commission to meet the normative debt to equity ratio shall be considered while truing up of the expenses.

Table 3.12 provides a summary of the Means of Finance as proposed by the Petitioner and as approved by the Commission for both the years.

**Table 3.12 Means of Finance (Rs. Crore)**

Source of Funds	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Consumer Contribution	10.67	10.67	13.91	15.00	13.91
APDRP Grant	65.49	65.49	16.22	383.63	54.85
APDRP Loan	65.49	65.49	16.22	383.63	54.85
Depreciation	0.00	0.00	0.00	0.00	0.00
Internal Accruals	22.43	22.43	12.40	334.65*	36.51
Commercial Debt	123.28	171.42	28.94	447.60	407.88
<b>Total Funds</b>	<b>287.35</b>	<b>335.50</b>	<b>87.69</b>	<b>1,564.50</b>	<b>567.98</b>

\* Petitioner has proposed to fund through internal accruals and additional equity.

### 3.12 Interest Expenditure

#### 3.12.1 Petitioner's Submission

In the Petition, the BYPL has submitted that APRDRP Loan is available at the interest rate of 12%. The Petitioner has further indicated an interest rate of 11% on commercial borrowings. In the subsequent submissions, the Petitioner has revised interest rate to 11.5% for APDRP loan. The Petitioner has estimated an interest expense of Rs. 9.90 Crore and Rs. 79.79 Crore for FY 2003-04 and FY 2004-05 respectively. The Petitioner has proposed to capitalise interest of Rs. 5.57 Crore and Rs. 19.85 Crore in FY 2003-04 and FY 2004-05 respectively. Accordingly, The Petitioner has proposed to charge an interest expense of Rs. 4.32 Crore and Rs. 59.94 Crore in the ARR for FY 2003-04 and FY 2004-05 respectively.

Subsequently, the BYPL has submitted the actual interest cost as per the Audited Accounts, details of actual means of finance for the actual capital expenditure for FY 2003-04. For FY 2003-04, the Petitioner has incurred an interest expense of Rs. 6.85 Crore on APDRP loan and loan from BRPL. The Petitioner has further submitted that it has incurred an interest of Rs. 0.06 Crore on loan of Rs. 8.30 Crore availed from BSES Infrastructure Finance Limited for 56 days and Rs. 0.36 Crore on cash credit limits from working capital consortium banks. The Petitioner has also indicated an interest expense of Rs 0.51 Crore on short term loan of Rs 78 Crore from banks for funding SVRS Scheme. The Petitioner has further indicated bank charges of Rs. 0.35 Crore as part of the interest expense for FY 2003-04.

The summary of interest charges as submitted in the Petition and actual interest charges for FY 2003-04 and the interest charges for FY 2004-05 as submitted in the Petition along with revised interest charges for FY 2004-05 is summarised in Table 3.13.

**Table 3.13 Interest Charges (Rs. Crore)**

Source of Funds	FY 2003-04		FY 2004-05
	Rev. Est. (Petition)	Actual	Petition
Interest charges on long term loan	9.89	6.85	79.79
Interest capitalized	5.57	0.00	19.85
Net interest charged to expenditure	4.32	6.85	59.94
Interest charges on short term loan/working capital facility		0.42	
Interest charges on short term loan for funding SVRS scheme		0.51	

### 3.12.2 Commission's Analysis

The Commission has considered actual interest on long-term loan and capitalisation of interest as per the Audited Accounts for FY 2003-04.

For FY 2004-05, the Commission has assumed the following parameters for computing the interest charges on APDRP Loans and Commercial Borrowings, considered as source of funds for meeting the total fund requirement towards capital investment.

On APDRP loan, an interest rate of 11.5% has been assumed

On commercial borrowings, an interest rate of 9% has been assumed considering prevailing long term lending rates.

The Commission considered interest on short-term loan and working capital facility

As regard to bank charges, the Commission has considered the same under A&G expenses.

The summary of interest charges as proposed in the Petition and as considered by the Commission is provided in Table 3.14.

**Table 3.14 Interest Charges (Rs. Crore)**

Component	FY 2003-04			FY 2004-05	
	Approved	Rev. Est. (Petition)	Commission	Petition	Commission
Interest charges		9.89	5.05	79.79	28.70
Interest capitalised		5.57	0.00	19.85	7.14
Net interest charged to expenditure	15.44	4.32	5.05	59.94	21.68
Interest on short term loan/ working capital facility			0.34		0.13

### 3.13 Arrears to Holding Company

#### 3.13.1 Petitioner's Submission

The Petitioner in its Petition has estimated the total DVB Arrears for FY 2003-04 at Rs. 40.38 Crore, out of which 80% of arrears equivalent to Rs. 32.30 Crore has been considered as an expense. For FY 2004-05, the Petitioner has estimated the total DVB Arrears of Rs. 40.38 Crore, out of which 80% of arrears equivalent to Rs. 32.30 Crore have been considered as an expense.

#### 3.13.2 Commission's Analysis

During the technical validation session, the Commission has obtained the details of actual DVB arrears collected by the Petitioner during the year. The actual DVB arrears collected during FY 2003-04 are Rs. 35.1 Crore as per the Audited Accounts. The Commission has considered 80% of these actual arrears i.e. Rs. 28.11 Crore to be passed on to TRANSCO. For FY 2004-05, the Commission has considered the the DVB arrears at Rs 41 Crore at the same level as proposed by the Petitioner and considered 80% of these arrears to be passed on to TRANSCO. On the matter of ploughing back of 80% of DVB arrears to the Sector by passing these arrears to TRANSCO instead of Holding Company, the Commission has discussed this issue in detail in Chapter 4 of the Order.

### **3.14 Return on Equity**

#### **3.14.1 Petitioner's Submission**

The BYPL has submitted that the return on equity should be allowed on the equity and free reserves at the end of the year as per the Clause 13 of the Policy Directions. The Petitioner has estimated Return on Equity for FY 2003-04 and FY 2004-05 at Rs. 25.11 Crore and Rs. 78.65 Crore, respectively.

#### **3.14.2 Commission's Analysis**

The Commission has considered the issue of providing return on the original equity plus closing balance of free reserves at the end of the year in its Tariff Order dated June 26, 2003 and Review Order dated November 25, 2003. As mentioned in the Review Order dated November 25, 2003, the Commission had referred the matter to the GNCTD seeking clarification on interpretation of the methodology to be followed for allowing Return on Equity to the Petitioner, the matter being the interpretation of the Policy Directions.

The reply from the GNCTD dated February 16, 2004 states that the matter has been examined in consultation with the Reform Consultants and the GNCTD agreed with their advice. The extract from the reply quoting the Reforms Consultant's advice is reproduced below.

*"Regarding the applicability of returns on additions made during the year, it is evident that such additions normally occur due to infusion of fresh equity or due to generation of surplus during the course of operations in a year, which subsequently get invested as assets in the business. Therefore, on applying the principle stated in Para 2 above, it is clear that the additions made during the year could at best be considered eligible for the returns only for the period in which they are beneficially deployed in the business, which could either be the entire year or a part thereof."*

*"However, as the exact timing of such generation and deployment of incremental surplus during a financial year is extremely difficult to ascertain, an approximation is generally resorted to whereby the amount eligible for returns is calculated by taking the average of opening and closing balance for a financial year."*

*"Examination of a few tariff orders of Central Electricity Regulatory Commission (CERC) reveals that CERC has also been adopting a similar methodology for arriving at the eligible amount for calculating return on equity."*

*"Under the circumstances, we are inclined to suggest that the return on equity may be permitted on the backdrop of the guiding principle that such returns should be applicable for the period when such amounts have been invested into fixed or any other assets, which have been put to beneficial use for the purpose of electricity distribution. Incidentally, the language of the notification also suggests the same intent. However, as conveyed by the legal advisor, we would like to state that it is ultimately for DERC to decide the extent of free reserves admissible for rate of return."*

Based on the clarification received from the GNCTD, the Commission has continued with the methodology of allowing return on equity on initial equity and average of opening and closing free reserves used for funding capital investments.

The Commission has undertaken a detailed analysis of the investments and means of finance proposed by the Petitioner. Details of investments and means of finance considered by the Commission have been provided in earlier sections.

As elaborated in the earlier sections, the Commission has considered funding of investments through internal accruals to the extent of Rs. 25.11 Crore and Rs. 78.65 Crore during FY 2004-05.

Based on this, the Commission has estimated Return on Equity and Free Reserves at Rs. 21.62 Crore for FY 2003-04 and Rs. 25.54 Crore for FY 2004-05. The extent of Free Reserves considered for funding capital investments and the Return on Equity and Free Reserves proposed in the Petition and considered by the Commission for determining ARR is summarised in Table 3.15 and Table 3.16

**Table 3.15\_Return as estimated by Commission (Rs. Crore)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Equity Capital	116.00	116.00	116.00	372.00	116.00
Opening Free Reserves	12.95	15.82	12.95	40.93	25.35
Addition during the year	22.43	25.11	12.40	78.65	36.51
Total Free Reserves	35.37	40.93	25.35	119.58	61.86
Average Reserves	24.16		19.15		43.60
Total Equity & Free Reserves*	140.16	156.93	135.15	491.58	159.60
16% Return on Equity & Free Reserves	22.43	25.11	21.62	78.65	25.54

\* Petitioner has proposed to consider Reserves at the end of the year. Commission has considered average Reserves during the year.

### 3.15 Contribution to Contingency Reserves

#### 3.15.1 Petitioner's Submission

BYPL has proposed to contribute Rs. 3.26 Crore for FY 2003-04 and Rs. 9.78 Crore for FY 2004-05 as a contingency reserves. In the subsequent submissions, the Petitioner has submitted that it has contributed Rs. 1.84 Crore as a contingency reserves in FY 2003-04.

### 3.15.2 Commission's Analysis

The Commission has considered actual contribution to contingency reserves for FY 2003-04 at Rs. 1.84 Crore. The Commission has considered contribution of 0.5% of original cost of fixed assets as a contingency reserves for FY 2004-05 at Rs. 2.31 Crore.

The following Table 3.17 summarises the Contribution to Contingency Reserves as proposed by the Petitioner and as considered by the Commission for FY 2003-04 and FY 2004-05:

**Table 3.17 Contingency Reserves (Rs. Crore)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Contribution to Contingency Reserves	1.82	3.26	1.84	9.78	2.31

### 3.16 Taxes on Income

#### 3.16.1 Petitioner's Submission

In the Petition, the BYPL has estimated the income tax by considering the grossed up tax rate of 38.5% (Prevailing tax rate for companies at 35% plus surcharge at 10%) on Return on Equity and appropriation to contingency reserves. The Petitioner has estimated the tax liability at Rs. 17.76 Crore and Rs. 55.36 Crore for FY 2003-04 and FY 2004-05 respectively.

#### 3.16.2 Commission's Analysis

The Commission has detailed the methodology adopted for estimating taxes on income in the Tariff Order dated June 26, 2003 and Review Order dated November 25, 2003.

The Petitioner has not provided for income tax in its Audited Accounts for FY 2003-04. The Commission would like to highlight that the actual tax liability has turned out to be nil as against the tax liability estimated by the Petitioner in the ARR Petition, which was derived by the grossing up method. This has happened because of the additional expense on account of Special Voluntary Retirement Scheme and difference in depreciation expenses allowed under the Income Tax Act and depreciation as per the books of accounts. Accordingly, the Commission has not provided for income tax in the ARR for FY 2003-04.

For FY 2004-05, the Commission has continued with the same methodology followed by it to estimate the tax on income realistically as described in its Tariff Order dated June 26, 2003. The Return on Equity assured to the Petitioner is the regulatory Profit after Tax. The Profit before Tax has been computed by dividing Profit after Tax by (1 – Income Tax rate). The regulatory depreciation considered by the Commission has then been added to the regulatory PBT, while the estimated



income tax depreciation has been deducted from the above sum, to arrive at the PBT in line with the Income Tax Act. As PBT comes out as negative, the Minimum Alternate Tax (MAT) will be applicable on the Profit before Tax (PBT), in accordance with the IT Act. The actual tax liability will be considered by the Commission under the 'truing up' mechanism in case there is a difference between the actual tax liability and the estimated tax liability.

The Commission also recognizes the fact that in the above method of estimating tax liability, there is a possibility that in some years, the tax liability may be higher in the scenario when tax depreciation is lower than the book depreciation.

The Table 3.18 below provides the taxes on income as proposed by the Petitioner and as considered by the Commission for determining the ARR.

**Table 3.18 Income Tax as estimated by Commission (Rs. Crore)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Taxes on income and profits	2.69	17.76	0.00	55.36	3.04

### 3.17 Non Tariff Income (NTI)

#### 3.17.1 Petitioner's Submission

The Petitioner, in its ARR and Tariff Petition for FY 2004-05, submitted that against an approved NTI of Rs. 18.08 Crore for FY 2003-04, the revised estimates for FY 2003-04 is Rs. 3.41 Crore. The main reduction is due to Petitioner considering a rebate against bulk supply at reduced levels. The Petitioner has estimated commission on collection of Electricity Duty @3% of the total electricity duty.

For FY 2004-05, the Petitioner has projected a Non Tariff Income of Rs. 3.64 Crore. The Petitioner has projected an increase of 6% in Non Tariff Income over FY 2003-04 revised estimates. For estimating the Non Tariff Income for FY 2004-05, the Petitioner has submitted that the increase is mainly due to nominal increase in other Non Tariff Income heads.

#### 3.17.2 Commission's Analysis

During the technical sessions, the Commission has obtained the details of the actual Non- Tariff Income for FY 2003-04. The actual non-tariff income for FY 2003-04 is Rs. 14.46 Crore.

Considering the submission of the Petitioner, the Commission, for FY 2003-04, has considered the Non Tariff Income of Rs. 14.46 Crore while estimating the ARR.

For FY 2004-05, the Commission has projected non-tariff income based on the following assumptions:

Income from compulsory investments estimated on the basis of level of compulsory investments at the end of FY 2003-04.

Rebate on power purchase for FY 2003-04 considered based on the Petitioner's submissions

Commission on the collection of the electricity duty based on 3% of the Electricity Duty.

The Table 3.19 provides a summary of the Non-tariff Income, as proposed by the Petitioner and as approved by the Commission.

**Table 3.19 Non Tariff Income (Rs. Crore)**

Particulars	FY 2003-04				FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Actual	Commission	Petition	Commission
Income from investments	1.03	0.05	0.06	0.06	0.09	0.09
Commission on collection of Electricity Duty	1.43	1.05	0.96	0.96	1.14	1.14
Rebate on Power Purchase	10.67	0.38	0.80	0.80	0.37	0.37
Other Income	4.96	1.94	12.64	12.64	2.02	13.49
<b>Total</b>	<b>18.09</b>	<b>3.41</b>	<b>14.46</b>	<b>14.46</b>	<b>3.62</b>	<b>15.09</b>

### 3.18 Total Expenditure excluding Power Purchase Cost

Table 3.20 provides a summary view of the various expenses as proposed by the Petitioner and as approved by the Commission for FY 2003-04 and FY 2004-05. Detailed analysis of each expense head has already been provided in the above sections.

**Table 3.20: Total expenditure excluding power purchase cost (Rs. Crores)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Employee expenses	126	128	114	160	132
A&G expenses	11	21	12	23	12
R&M expenses	31	38	31	41	31
Loss on retirement/sale of assets	0	2	0	5	0
Depreciation	14	28	14	51	17
Interest charges	15	10	5	80	29
Arrears to Holding Company	19	32	28	32	32

**Table 3.20: Total expenditure excluding power purchase cost (Rs. Crores)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Carrying cost on truing up of FY 2003-04	0	0	0	0	5
Other Admissible expenses	1	0	0	0	0
<b>Total Gross Expenditure</b>	217	259	205	392	259
Less: Expenses capitalized	13	10	2	25	24
<b>Total Net Expenditure</b>	204	248	203	367	235
Contingency Reserves	2	3	2	10	2
Income Tax	3	18	0	55	3
Deduction	0	0	0	0	-1
<i>Total Appropriations</i>	5	21	2	65	4
<b>Net Expenses incl. Special Appropriations</b>	209	269	205	432	239

Note: Total may not tally due to rounding off.

### 3.19 Revenue Requirement Excluding Power Purchase Cost.

The Revenue Requirement excluding Power Purchase Cost for FY 2003-04 and FY 2004-05 as proposed by the Petitioner and as approved by the Commission is provided in Table 3.21

**Table 3.21 Revenue Requirement excluding Power Purchase Cost (Rs Crore)**

Component	FY 2003-04			FY 2004-05	
	Order for FY 2003-04	Rev. Est. (Petition)	Commission	Petition	Commission
Expenditure (A)	209	269	205	432	239
Return on Equity and Free Reserves (B)	22	25	22	79	26
Non Tariff Income (C)	18	3	14	4	15
<b>ARR excluding Power Purchase Cost (A+B-C)</b>	213	291	212	507	250



## **4. Tariff Philosophy**

### **4.1 Background**

The first Tariff Order issued by the Commission for the erstwhile DVB in 2001 was largely in line with the approach mentioned in the Concept Paper issued by the Commission in September 2000, which followed the provisions of the Electricity (Supply) Act, 1948. Subsequently, the DVB was restructured and unbundled into one Generation Company (GENCO), one Transmission Company (TRANSCO) and three Distribution Companies (DISCOMs). The GNCTD issued Policy Directions on November 22, 2001 in exercise of the powers conferred under Section 12 and other relevant Sections of the Delhi Electricity Reform Act, 2000 (DERA), to facilitate the process of privatisation of the unbundled distribution entities of DVB. The Policy Directions specified that the Distribution Licensees would earn a return of at least 16% on their paid up equity capital and free reserves, based on predetermined efficiency parameters for the five-year period from FY 2002-03 to FY 2006-07. Through the Policy Directions, the Commission was mandated to issue the order before bidding for privatisation on determination of the Bulk Supply Tariff payable by DISCOMs to TRANSCO and the opening level of AT&C losses for the three DISCOMs.

The Commission issued the Order on Bulk Supply Tariff and the Opening Level of AT&C losses, on February 22, 2002. The GNCTD, issued another set of Policy Directions on May 31, 2002 in amendment to the Policy Directions issued on November 22, 2001, specifying (i) the trajectory of AT&C losses to be achieved by the DISCOMs as agreed during the bidding process towards privatisation of DISCOMs (Accepted Bid AT&C loss reduction target) over the five year Policy period, (ii) the loss reduction target specified by GNCTD for bidding process (minimum loss reduction target) (iii) the treatment in tariff in case of underachievement or overachievement in actual AT&C losses with respect to Accepted Bid AT&C loss reduction target and (iv) Minimum AT&C loss reduction target.

Subsequently, the Commission issued the revised "Guidelines for Revenue & Tariff Filing" (Guidelines) on August 23, 2002 to accommodate the framework established by the Policy Directions. The DISCOMs and the TRANSCO filed their ARR Petitions for FY 2002-03 (9 months) and FY 2003-04 during November and December 2002 in accordance with the revised Guidelines. The Commission after a detailed analysis of the Petitions and following due public process issued its Order on these Petitions, on June 26, 2003, in line with the Policy Directions and the tariff philosophy adopted by the Commission.

#### **4.1.1 Elements of Policy Directions**

There are four important elements in the Policy Directions issued by the GNCTD, which are relevant from the point of view of tariff philosophy. First, the retail tariffs in the State have to be uniform over the tenure of Policy Directions i.e. FY 2006-07. Second is the determination of a Differential BST

payable to TRANSCO for power purchase by each DISCOM based on the paying capacity of the respective DISCOMs. Third is the aspect of Government Support for bridging gap of TRANSCO and lastly, the concept of AT&C loss and the treatment of over/under achievement in AT&C losses by the DISCOMs. All these aspects of Policy Directions have been explained in detail in the Commission's Orders dated June 26, 2003

The requirement of uniform retail tariff across all the DISCOMs in Delhi implies that the tariff for a particular category of consumer shall be uniform till the end of FY 2006-07, irrespective of geographical location of the consumer within the NCT of Delhi. This requires that the uniform retail tariff for all the DISCOMs have to be determined by considering the ARR of TRANSCO and all DISCOMs simultaneously, after providing a minimum of 16% return for each DISCOM. The determination of Bulk Supply Tariff have to be inter-linked with revenues through the retail tariff and individual parameters including AT&C losses of DISCOMs. Further, the other important aspect of Policy Directions is the support envisaged to be provided by GNCTD to TRANSCO to bridge the revenue gap of the TRANSCO and the Bulk Supply Tariff it receives from the DISCOMs. The provisions of the Policy Directions in this regard are as follows:

*"The Government will make available to Transmission Company an amount of upto, approximately, Rs. 3450 Crore during the period 2002-03 to 2006-07 as loan to be repaid by the Transmission Company to the Government in a manner agreed to between the Transmission Company and the Government".*

The Policy Directions laid down performance targets/efficiency level to be achieved by the Distribution Companies measured in terms of AT&C loss. Following the principles specified in the Policy Directions, the determination of AT&C loss involves estimation of three parameters, i.e., T&D loss, collection efficiency, and units realised. T&D loss is the difference between the units input to the DISCOM and units billed by the DISCOM, expressed in terms of ratio of energy input to the DISCOM. Collection efficiency is the ratio of the amount collected to the amount billed and units realised is the product of units billed and collection efficiency. AT&C loss is the difference between units input and units realised, expressed as a percentage of units input. In the Commission's Order issued on June 26, 2003, the Commission has explained in detail, the method of determination of AT&C losses. The Commission also discussed in detail, the impact of lag in the collection and billing and analysed sample data collected from the Central East Delhi Electricity Distribution Company (BSES Yamuna Power Limited) to examine whether lag in billing and collection needs to be factored in the AT&C loss computations. The results of the analysis showed that, although the AT&C loss for a particular month might be very high or low, the overall AT&C loss for the year follows a definite trend and has minimal variation. Hence, the Commission concluded that the impact of time lag is minimal and that it may not be necessary to differentiate between the collection efficiency with time lag and without time lag.

#### **4.1.2 Treatment of Over Achievement and Under Achievement of Efficiency Targets**

The amendment to the Policy Directions issued by the Government on May 31, 2002, further elaborates the method of treatment of overachievement and underachievement over the period FY 2002-03 to FY 2006-07. The relevant provisions have been reproduced below:

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

*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 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/underachievement and appropriate adjustments shall be made for the net effect."*

The Commission has already elaborated upon the treatment of over/under achievement as per the provision of Policy Directions in its Orders on ARR Petitions of DISCOMs for FY 2002-03 and FY 2003-04 issued on June 26 2003.

#### **4.1.3 AT&C Losses for FY 2002-03 and FY 2003-04**

The Commission while determining the ARR of DISCOMs for FY 2002-03 had considered the actual AT&C losses and AT&C loss reduction trajectory in Policy Direction framework. During FY 2002-03, two of the DISCOMs (NDPL and BYPL) under-achieved the AT&C loss reduction vis-à-vis their corresponding bid level targets. For these two DISCOMs, the Commission for computing the ARR for FY 2002-03 had considered the AT&C loss for FY 2002-03 considering the bid level AT&C loss reduction target as per the provisions of Policy Directions. The third DISCOM (BRPL) over-achieved the AT&C loss reduction vis-à-vis its bid level target and hence the Commission had considered the

actual AT&C loss while computing the ARR as per the provisions of Policy Directions in case of over-achievement in AT&C loss reduction as compared to bid level target.

For FY 2003-04, the Commission, had considered the closing AT&C loss level of FY 2002-03 determined considering the bid targets as the opening level for FY 2003-04 for two DISCOMs (NDPL and BYPL), due to under-achievement of AT&C loss reduction vis-à-vis the bid level target. For BRPL, the Commission had considered the opening level of AT&C loss for FY 2003-04 as the actual loss level at the end of FY 2002-03 due to company's over-achievement of AT&C loss reduction vis-à-vis the bid level target. This effectively implies that the over achievement in AT&C loss during one particular year had been considered for succeeding years.

Subsequent to the Commission's Order dated June 26, 2003, BRPL filed the Review Petition on the Order on ARR for FY 2002-03 and FY 2003-04 issued by the Commission, in which BRPL in addition to other issues had also raised an issue that as per the Policy Directions the over achievement in AT&C loss reduction during one particular year cannot be considered for determining ARR and Tariffs for succeeding years.

The Commission issued its Order on Review Petition filed by BRPL on November 25, 2003 in which the Commission has detailed out the rationale for considering over achievement in AT&C loss reduction during one particular year for succeeding years. The Commission's views on this issue as detailed out in Order on Review Petition filed by BRPL are as follows:

"The Policy Direction issued by the GNCTD on May 31, 2002 has clarified that the cumulative net effect of revenue has to be considered. However, in the absence of an illustrative example for the sharing mechanism as suggested by the Commission, the Commission had to form its own interpretation of the Policy Directions.

Reduction in AT&C loss level is indicative of improvement in operation performance; therefore, any reduction in the loss level achieved during any particular year gets considered while setting targets for loss level reduction to be attained during subsequent year. Thus, the Commission has adopted the methodology entailing carrying forward of any over-achievement in AT&C loss during any particular year on to the next year for the purpose of tariff determination in the Tariff Order".

However, as this is a matter of interpretation of Policy Directions and this issue will have substantial impact on the future ARR and Tariff Determination process, the Commission felt it appropriate to seek clarifications from GNCTD on the methodology to be followed for treatment of over-achievement in AT&C losses in any particular year for the future.

The Commission requested the GNCTD to provide clarification on the issue of treatment of under/over achievement vis-à-vis AT&C loss targets in the context of the interpretation of Para 2 of the Policy Directions notified on May 31, 2002, vide letter No. F.11 (42)/DERC/2003-04/3719 dated November 5, 2003. In response, the GNCTD, in its letter No. F11 (118)/2001-Power/Partfile/2336



dated December 26, 2003, has given its clarifications on the points raised by the Commission. In addition to explaining the treatment of under/over achievement of AT&C losses, the GNCTD has explained the proviso to Para 2 of the Policy Directions issued on May 31, 2002, on the question of cumulative effect of the AT&C loss achieved by the DISCOMs. The GNCTD in its letter stated that

*"The proviso again has no effect on the annual AT & C loss reduction targets, but only related to the determination of additional revenue or shortfall in revenue on account of over-achievement or under-achievement of the loss reduction targets..... The intention of proviso was only to give the DISCOMs the benefit of certain financial adjustments in respect of financial consequences of underachievement or over achievement and has no effect on the AT & C loss reduction targets themselves. Indeed the idea of shifting the targets themselves would be contrary to the whole scheme of policy directives. Again, if the targets themselves were likely to shift upwards on over-achievement, it would not only imply serious disincentive for loss reduction, but might equally have led to demands for a corresponding revision in case of underachievement. It would not, therefore be consistent with the Policy Directions to shift the targets. "*

The Government along with the letter providing clarification on this issue also attached the illustrative examples (hypothetical situations) of underachievement and overachievement in different years and how the cumulative net effect ought to be taken into account.

#### **4.2 Treatment of Over/Under Achievement in AT&C Losses**

The Commission while estimating the ARR has duly considered the clarification on this issue of treatment of overachievement in a particular year. Accordingly, the Commission has not considered overachievement in a particular year for determining an opening level of AT&C loss for the next year. The Commission has also considered an adjustment of additional revenue due to overachievement in a particular year against a loss in revenue due to underachievement in the previous years.

#### **4.3 Capital Investment Plan**

The Commission has analysed in detail the capital investment plan of TRANSCO and each DISCOM while analysing the ARR of respective Company. However, considering the huge capital investments proposed by two DISCOMs (BRPL and BYPL), and their impact on ARR and tariffs, the Commission felt it appropriate to discuss the Investment Plan of TRANSCO and DISCOMs together as a part of tariff philosophy. Accordingly, the Commission in this Section has detailed the Investment Plan proposed by TRANSCO and DISCOMs, the Commission's views on Investment Plans, need for integrated approach between TRANSCO and DISCOM for planned development of the system, impact of investment plan on ARR and proposed treatment for huge investments over and above the normative level of investments to make these investments tariff neutral.

### 4.3.1 Investment Proposal of the TRANSCO and DISCOMs

#### 4.3.1.1 Investments Proposed in the ARR Petitions

In their ARR Petitions, the TRANSCO and the DISCOMs have proposed investments as given in Table 4.1 below for FY 2004-05 and have also projected the magnitude of investment over the remaining Reform Period (i.e., from FY 2004-05 to FY 2006-07):

**Table 4.1: Capital Investment Proposal by TRANSCO & DISCOMs**

(Rs. Crore)

Company	FY 2004-05	Indicative Investment Plan over FY 2004-05 to FY 2006-07
BRPL	1177	1402
BYPL	1565	1700
NDPL	307	860
TRANSCO	328	Not Submitted

The DISCOMs have stated that they have proposed investments for FY 2004-05 to cater to the following requirements:

System development and strengthening of system to meet the growth in load and improve the reliability;

Reduction in system losses;

Automation and other improvements to improve customer service;

Installation of capacitors;

Energy Auditing;

Fulfilment of social obligations (such as electrification of JJ colonies);

Consumer deposit works.

NDPL and TRANSCO have continued with a phased investment approach to meet the system requirements. However, two of the DISCOMs, viz., BRPL and BYPL, have proposed to accelerate the entire process of modernisation and augmentation of the system in FY 2004-05, instead of continuing with the approach of phased investments every year. BRPL and BYPL have opined that a complete revamp and augmentation of the existing system is essential to improve the reliability and quality of supply and to minimise the losses. They have stated that gradual improvements in the system would not be the optimal approach.

#### 4.3.1.2 Impact of the Accelerated Investment on the Annual Revenue Requirement (ARR)

The proposal of accelerated investment as compared to the normative levels of investment would result in higher costs in the initial years due to increase in depreciation, interest, O&M costs and return on equity and free reserves.

The Commission believes that the acid test for accepting these proposals of accelerated investments is that there should be no impact of these investments on ARR for the current year as well as for the future years. In other words, these investments should be tariff neutral.

#### 4.3.1.3 Comparison of the investment proposal

The Commission is concerned about the impact on the tariff to the consumers arising from the substantially high capital investment proposed for FY 2004-05 by two of the DISCOMs by advancing the capital expenditure of future years to FY 2004-05.

The investment proposal of the DISCOMs when compared with the investment requirement projected by the Technical Consultant to the GNCTD at the time of the restructuring of the erstwhile Delhi Vidyut Board (DVB) and privatisation of DISCOMs indicates that the proposal by the DISCOMs is at variance with what was envisaged. The Technical Consultant had envisaged investments as given in Table 4.2 below for the DISCOMs for a period of five years from FY 2002-03 to FY 2006-07:

**Table 4.2: Investment envisaged at the time of restructuring**

(Rs. Crore)

DISCOM	2002-03	2003-04	2004-05	2005-06	2006-07	Total
Central East (BYPL)	66	75	67	75	75	357
South West (BRPL)	65	74	66	74	74	352
North North West (NDPL)	57	65	58	65	65	310
<b>Total</b>	<b>187</b>	<b>213</b>	<b>191</b>	<b>214</b>	<b>214</b>	<b>1019</b>

Additional investment requirement beyond the level of investment envisaged prior to the restructuring would have a corresponding impact on the ARR and tariff increase beyond the level envisaged earlier.

#### 4.3.2 Study for need of investment in Delhi Power Sector by CEA

To establish the need for investments in the Delhi Power Sector, the Commission has considered the Comprehensive Study Report on the Transmission and Sub-transmission System of Delhi prepared by the Central Electricity Authority (CEA) in March 2004, for the X Plan (upto FY 2006-07). The CEA has assessed the proposed network addition by the TRANSCO, BRPL and BYPL. CEA has identified the capital works that need to be implemented in the X Plan Period. The Report highlights the following findings and recommendations:

- *The TRANSCO should expeditiously complete the ongoing works for strengthening the transmission system in Delhi. The TRANSCO should provide requisite number of bays in their grid substations for supplying power to BRPL and BYPL network.*
- *The new lines and substations planned by BRPL and BYPL are such that all lines and substations are optimally loaded. The sub-transmission works for strengthening/reinforcement of the system in BRPL and BYPL area for meeting power demand during the X Plan period have been identified. CEA has suggested 17 nos. of 66 kV and 13 nos. of 33 kV substations along with new 66 kV and 33 kV lines/cables for meeting the growth in load.*

- CEA has suggested that the 11 kV and 0.4 kV works should be implemented to correspond to the commissioning of the 66 kV and 33 kV substations.
- CEA has recommended that BRPL and BYPL may identify and replace the old switchgears and cables wherever it is necessary.
- CEA has recognised the need to constitute a Standing Committee comprising senior officers of TRANSCO, BRPL and BYPL in order to coordinate and sort out the issues arising during implementation and timely completion of the works as per the target.

The Report has recognised the need for substantial augmentation and investment in the Delhi Power System till FY 2006-07.

CEA in its report has identified the capital investments, which are significantly higher than the investments identified by the technical consultants at the time of restructuring. The CEA has carried out this study recently and hence this study reflects the need of the system based on the prevalent network conditions. Hence, the Commission considers the CEA Report as the base while assessing the capital investment plan.

#### 4.3.3 Assessment of past investment performance

While the Commission has to be satisfy itself about the need for the investment, the Commission also has to consider the feasibility of implementing the proposed investments to ensure that the system benefits from the proposed investments and does not get loaded with the cost of delayed/incomplete investments.

Over the past 2 years, the actual track record of the DISCOMs and TRANSCO in implementing investment schemes does not impart confidence in the ability of the DISCOMs and TRANSCO to implement the proposed investments. The Table 4.3 below summarises the investments approved by the Commission in its ARR and Tariff Order dated June 26, 2003 and actual investment achieved by the DISCOMs and TRANSCO for FY 2002-03 and FY 2003-04:

**Table 4.3: Investment Implementation Performance**

(Rs. Crore)

Petitioner	FY 2002-03		FY 2003-04	
	Order for FY 2003-04	Actual	Order for FY 2003-04	Actual
TRANSCO	43	44	341	85
BRPL	76	31	423	88
BYPL	56	36	336	71
NDPL	165	49	287	226
<b>Total</b>	<b>340</b>	<b>160</b>	<b>1387</b>	<b>470</b>

From the above Table, it is evident that the actual capital expenditure incurred by the TRANSCO, BRPL and BYPL is significantly lower than the capital expenditure approved by the Commission in its Order for FY 2002-03 and FY 2003-04. The Commission has considered implementation performance while approving investments for FY 2004-05.

#### **4.3.4 Assessment of the proposed investments**

The Commission is deeply concerned about the substantial underachievement in the progress of the much needed capital works for the second year in succession, and its consequent impact on AT&C loss reduction, system augmentation, load shedding, reliability and safety of the Delhi Power System. The Commission had a meeting with the Senior Management team of the TRANSCO and DISCOMs on April 28, 2004 to emphasise the need for corrective action so as to ensure that the Reform Process achieves the desired objectives.

During the Technical Sessions, the Commission sought details of cost-benefit analysis for the proposed investments to assess the prudence of the proposed investments. This was sought, separately for each of the schemes, as well as the cumulative savings/benefits arising out of all the proposed schemes including the over-achievement in AT&C loss reduction.

During the Technical Sessions, the Commission directed the Petitioners to explain their preparedness to execute the Capital Expenditure proposed during FY 2004-05, including the orders placed, implementation schedule of major schemes and the source of funding along with supporting documents.

The Commission has also recognised the need for an integrated and co-ordinated approach between the TRANSCO and the three DISCOMs for a pragmatic Capital Expenditure Plan. CEA, in its Report referred earlier, has also stressed upon the co-ordinated development of the system. An integrated and co-ordinated approach amongst TRANSCO and DISCOMs is a must for system augmentation and improvement to ensure that the benefits of system improvement are available to the end consumer. Any unreliable or weak link in the chain would weaken the entire chain and any over-strengthening or redundancy will cause unwarranted burden on tariffs in initial years. Till the system is augmented at transmission level, substantial capital works towards augmenting the system at distribution level will not result in substantial benefits to the consumers. Similarly, investments in transmission system would not yield intended benefits to consumers if adequate investments were not made in the distribution system. It is, therefore, essential that the system improvement should be carried out on a holistic basis. In this regard, the Commission directed the DISCOMs to co-ordinate with TRANSCO and finalise the Capital Investment Plan for FY 2004-05 considering the study carried out by the CEA as the base document.

#### **4.3.5 Revised investment proposal of DISCOMs and TRANSCO for FY 2004-05**

In its subsequent submissions, TRANSCO has attributed the delay in implementation of the projects to the lower sanction of funds by GNCTD as compared to the level of proposed investments. The

TRANSCO has further submitted that they have obtained the sanction from PFC to undertake investments beyond the funds made available by GNCTD.

BRPL and BYPL have pointed out that they have undertaken and completed a detailed network optimisation study with the help of internationally reputed agencies, viz., ABB and Alstom, for following an integrated approach towards capital investment. They have mentioned that they are geared up for accelerated and timely execution of the projects. During the Technical Sessions, the Commission directed BRPL and BYPL to submit the Report on Network Optimisation Study carried out by ABB and Alstom. However, BRPL and BYPL have submitted a Report on Network Upgradation based on an in-house review and study of the results of the Network Optimisation Study carried out by ABB and Alstom.

In the subsequent submissions, BRPL has indicated that it has proposed an investment of Rs. 312 Crore towards reduction of AT&C loss, out of the total proposed investment of Rs. 1284 Crore. BRPL has estimated the benefit on this account as Rs. 19 Crore in FY 2004-05, Rs. 57 Crore in FY 2005-06, Rs. 82 Crore in FY 2006-07 and Rs. 88 Crore in each subsequent year. BYPL has indicated that it has proposed an investment of Rs. 369 Crore towards reduction of AT&C loss out of the total proposed investment of Rs. 1568 Crore. BYPL has estimated that this investment is likely to yield a benefit of Rs. 23 Crore in FY 2004-05, Rs. 72 Crore in FY 2005-06, Rs. 115 Crore in FY 2006-07 and Rs. 117 Crore in each subsequent year.

BRPL and BYPL have highlighted other benefits accruing from the investment plan in addition to the AT&C loss reduction:

Increase in reliability and improvement in quality of power coupled with improved safety and environment friendly infrastructure;

Meeting the growing demand of existing consumers;

Better customer services, making available information to consumers about services and better utilisation of power supply;

Long term benefit of reduction of cost of service.

In the subsequent submissions, all the Petitioners have submitted brief information on the status of proposed investments and proposed means of finance.

#### **4.3.6 Ensuring tariff neutrality of the Accelerated Investment Proposal**

The Commission has to assess the following to ensure that the accelerated investments are tariff neutral:

Assess the cost benefit of the schemes and approve the viable schemes;

Ensure that the planned investments materialise in a timely manner and benefits accrue to the system, by ensuring that the system is not burdened with the cost of delayed/incomplete projects;

Ensure co-ordination between TRANSCO and DISCOMs so that the entire chain in the system is established and the benefit of the investment reaches the end consumer;

Assess the impact of the investment on the tariff and approve the investment such that only the needed investments are taken up and it does not result in a tariff shock to the consumer.

The Commission convened a meeting with the Senior Management team of the TRANSCO and DISCOMs on April 28, 2004 to discuss its concern on the impact of investments on the tariff to the consumer and to find a solution to make the investments tariff neutral.

In the subsequent submissions, BRPL and BYPL have estimated that the higher costs due to the accelerated investment as against phased investment would be recovered through a higher reduction in AT&C losses over and above the committed levels. They have further pointed out that accelerating the investment would result in significant early improvement in reliability and quality of supply. They have further proposed that the differential higher expenditure on account of accelerated investment as compared to the normative expenditure be carried forward as a regulatory asset in case the realisation of financial benefits in the initial years is not sufficient to offset the entire estimated higher expenditure, as there could be a time lag between incurring of expenditure and resultant improvement. They have proposed that the regulatory asset on the books can then be amortised over a period of time, through increase in tariffs based on the normative investment levels only. They have suggested that the normative expenditure in subsequent years should be based on notional investment that would have been allowed had the Licensees not made the front-ended investment.

The Commission has assessed the implications of the proposed investments in Delhi's Power Sector. For assessing the need of the investments, the Commission has considered the Comprehensive Study Report on Transmission and Sub-transmission System prepared by CEA and the submission of BRPL and BYPL based on in-house review and study of the results of the Network Optimisation Study carried out by ABB and Alstom. Based on the Report prepared by CEA, the Commission recognises the need for substantial investment in Delhi's Power Sector. The Commission believes that the capital expenditure is essential for salvation of Delhi's Power Sector.

For assessing the need, prudence and viability of the investments, the Commission had directed the Licensees to submit additional information to which the Licensees have only partly complied with. The Commission would also like to highlight that the approval of the schemes has to be undertaken separately from the ARR and Tariff Determination process, as it requires significant time and resources of the Commission to analyse the same. **The Commission directs TRANSCO and DISCOMs to submit the complete DPR along with cost-benefit analysis for schemes more than Rs. 2 Crore for obtaining the scheme-wise investment approval from the Commission as per the terms and conditions of the License for Transmission and Bulk Supply and Distribution and Retail Supply of Electricity respectively within a month from the date of the issue of this Order. The Commission further directs that the Petitioners should submit a separate Petition for approval of schemes for FY 2005-06, by September 2004.**

To ensure that the investments are synchronised, the Commission has initiated an interaction between the TRANSCO and DISCOMs for co-ordinated development. As mentioned in Chapter 3, **In line with the recommendation of the CEA, the Commission directs the TRANSCO and DISCOMs to form a Steering Committee, with one member as Commission's Representative, within 7 days of the**

**date of issue of this Order. The Steering Committee would be responsible for developing an integrated and consolidated implementation plan and monitoring thereof. The Commission directs the TRANSCO and DISCOMs to submit the consolidated plan within 15 days of the date of issue of this Order and submit quarterly monitoring reports thereafter.**

Considering the present status of preparedness of the proposed investment and need for integrating the implementation plan, the Commission is of the opinion that it is not prudent to allow the full investments proposed by TRANSCO and DISCOMs. Hence, the Commission has approved the investment plan at the normative level. If the DISCOMs are able to implement the investment beyond the approved normative level during FY 2004-05, then the differential cost arising out of such investments subject to a check on their prudence, to the extent they are compensated by the associated financial benefits, would be allowed during the truing up. Any additional cost arising of such investments subject to prudence check beyond the limit of associated financial benefits may be considered, as a regulatory asset, as has been suggested by BRPL and BYPL. Such regulatory assets may be amortised through future financial benefits arising out of such investments.

#### **4.4 'Truing up' Mechanism**

In the Order issued by the Commission in June 26, 2003 on the ARR Petitions filed by TRANSCO and DISCOMs, the Commission had relied on the information available at that point of time and also projected the sales, expenses and revenues while determining the Annual Revenue Requirement for FY 2003-04. The Commission recognised the fact that at the end of the year, the actual sales, expenses and revenues can be different vis-à-vis the projections made by the Commission in its Order. The Commission had detailed its view that the licensees have to be compensated to the extent of variations, which are beyond their control, subject to prudence of the expenses, to ensure their financial viability. In the said Order, the Commission instituted a process of 'Truing up' at the end of the year, based on the actual expenses/revenues, considering the prudence of such variations over the approved levels. Further, the Commission clarified that while approving such expenses/revenues to be recovered in the future years, the holding costs of the same would also be allowed. The Commission is of the view that the holding costs should be limited to the rate approved for working capital borrowings, as these requirements should be financed out of short-term funds.

During the process of ARR for FY 2004-05, the audited accounts for FY 2003-04 for two out of the three DISCOMs, viz., BRPL and BYPL, have been submitted to the Commission and the provisional accounts have been submitted in the case of NDPL. The Commission has, therefore, decided to true up the ARR for FY 2003-04 based on the actual expenses and revenue for FY 2003-04 and consider the difference between the actual expenses and revenue in FY 2003-04 vis-à-vis the approved levels, if any, subject to prudence, in the ARR for FY 2004-05. According to the



Commission's estimates, the total expense to be carried over to FY 2004-05 after truing up for FY 2003-04 is Rs. 146 Crore for the sector.

#### **4.5 Treatment of DVB Arrears**

According to the provisions of the Transfer Scheme, the amount of DVB arrears realised by the DISCOM shall be shared between in the Holding Company and DISCOM in the ratio of 80:20. The Commission in its previous Tariff Order dated June 26, 2003 has deliberated on this issue and the Commission's views on this issue as mentioned in Tariff Order dated June 26, 2003 are as follows:

*"In the Transfer Scheme, notified by the Government of NCT of Delhi on 20th November 2001, the following has been stated:*

*"All the receivables from sale of power to consumers of the erstwhile Board other than to the extent specifically included in Schedules D, E and F shall be to the account of Holding Company. The DISCOMs will be authorised to realise the receivables of the Holding Company in their respective area of supply. Upon realisation of such receivables of the Holding Company the same shall be shared between the Holding Company and the DISCOMs in the ratio 80:20".*

*These specified receivables are the past dues against the power sold by the erstwhile Delhi Vidyut Board (DVB), prior to its restructuring. These receivables have been passed on to the distribution companies and are reflected in their balance sheets, as assets. According to the terms of the Transfer Scheme, the Holding Company is to receive 80% of the receivables while the balance 20% would be retained by the distribution companies. In the ARR Petitions filed by the three distribution companies, while 20% of the receivables have been accounted as non-tariff income, the remaining 80% is treated, as expense, and passed on to the Holding Company. This would, of course, increase the revenue gap, which would, in turn, imply that tariffs would have to be raised.*

*It is the considered view of the Commission that the 80% of the receivables, which is going to the Holding Company, should, in fact, go to Delhi Transco Ltd., to be ploughed back into the sector. This would be the most logical course of action since at the time of the calculation of the Bulk Supply Tariff in February, 2002, the entire receivables was taken into account as an income being generated within the sector. It is to be borne in mind that, as mentioned above, in case 80% of the receivables is repatriated to the Holding Company, the consumers of Delhi would have to incur the burden by way of an enhanced tariff shock. In this context, the Commission also notes that in determination of AT&C losses, no distinction is made between the amounts realised against current billing and amounts realised against the past receivables. The Commission is of the view that it could not possibly have been the intention of the GNCTD, while drafting the Transfer Scheme that the expense is passed on to the consumers. It would, indeed, be ironical if the consumers of Delhi were to bear the burden of the receivables, estimated at close to Rs. 200 Crore during financial year 2002-03 (09 months) and financial year 2003-04, in the post privatisation period. **In view of the above, the Commission asks the GNCTD to revisit this matter and issue an appropriate amendment***

**to the Transfer Scheme. In so far as the present Petitions are concerned, the Commission has considered 80% of the collected arrears remaining within the sector while determining the annual revenue requirements."**

The GNCTD has reviewed the matter and issued a clarification through letter No.F.11(99)/2001-Power/531 dated March 31, 2004 that the original Transfer Scheme would remain as it is and the receivables against DVB arrears would be shared between the Holding Company and the DISCOMs in the ratio of 80:20 respectively.

The Commission feels that it would be equitable and fair if the revenue realised on account of recovery of arrears remain in the sector and as recommended in the Tariff Order dated June 26, 2003, are passed on to the Delhi Transco Limited, instead of the Holding Company. Accordingly, the Commission vide its letter dated April 25, 2004 had again requested the Government to reconsider the matter in the interest of consumers of Delhi as under.

- *"On the issue of past receivables, known as "arrears", it may be stated that the Order issued by the Commission in February, 2002, the "arrears" were treated as a part of the revenue stream while determining the opening levels of AT&C losses and BST. This, in other words, meant no outflow of the revenue outside the sector.*
- *In case, the revenue stream is treated as an expense stream as has been envisaged in the transfer scheme, it would alter the conclusion arrived at earlier. In the instant case, the opening AT&C losses and the BST would get a completely different dimension, while the AT&C losses and the BST would get a completely different dimension, while the AT&C loss levels would go up, the BST will come down.*
- *As a result of higher opening AT&C losses and lower BST as brought out above, the loan assistance of Rs. 3450 Crore to Transco shall also go up considerably.*
- *The entire past "arrears" were a part of the revenue stream in the pre-restructuring era. As a part of the transfer scheme, the receivables are envisaged to be shared between the Holding Company and the DISCOMs in the ratio of 80:20 respectively. In the revenue stream, the 80% share of Holding Company becomes an expense. It would thus be discriminatory in regard to treatment of past "arrears".*

In terms of details:

- *An amount of Rs. 210 Crore has been estimated as receivables during the year 2003-03 and 2003-04. After accounting for the same to remain within the sector by way of outflow to Transco (and not Holding Company), the remaining revenue gap of s. 87 Crore required an overall increase of tariff by 5.6%. Obviously the tariff would have been far far higher had the "expense" of Rs. 210 Crore was also to be provided for by way of tariff increase.*
- *There are estimates which suggest that the total "arrears" of the erstwhile DVB could well be around Rs. 2000 Crore. Going by the transfer scheme, this would lead to a heavy burden on the consumers of Delhi.*

- It shall be ironical if the collection of past "arrears" from the defaulters (during DVB time) is to be shared by the other law-abiding consumers by way of increased tariff for no fault of theirs.

Considering the above aspects, the Commission strongly feels that it would only be equitable and fair if the revenue realised remain in the sector and as recommended in the Tariff Order of 26<sup>th</sup> of June 2003, are passed on to the Delhi Transco Limited, instead of the Holding Company. The Commission would, therefore, again make an earnest request to the Government to reconsider the matter in the interest of the consumers of Delhi who otherwise will have to bear an unwarranted huge tariff shock."

The GNCTD further replied on June 4, 2004 mentioning that the Government has reviewed the matter and the original Transfer Scheme would remain as it is and the receivables against DVB arrears would be shared between the Holding Company and the DISCOMs in the ratio of 80:20 respectively.

As discussed in earlier Sections, the Commission is of the opinion that it will not be fair at all to pass on the burden of past receivables of the sector to consumers of Delhi as also this will warrant huge tariff shock to consumers. The 80% of total receivables for three years i.e. FY 2002-03, FY 2003-04 and FY 2004-05 works out to around Rs. 300 Crore. In case these receivables are to be passed on to Holding Company instead of TRANSCO as envisaged in Commission's Order dated June 26, 2003, these receivables along with carrying cost on arrears of FY 2002-03 and FY 2003-04 has to be considered as expense in ARR, which will increase the Revenue Gap by around Rs. 330 Crore. To bridge this additional sector revenue gap of Rs. 330 Crore, the tariff increase required will be around 9%. Considering these aspects, the Commission vide its letter dated June 7, 2004 has again approached the Government so as to protect the consumers of Delhi from unwarranted tariff hike. Accordingly, the Commission while estimating the ARR and Revenue Gap has considered 80% of the collected arrears remaining within the sector as revenue to TRANSCO.

#### **4.6 Sector Revenue Gap at Existing Tariffs with Government Support**

The total sector revenue gap estimated by the Commission for FY 2004-05 is Rs. 1097 Crore including the revenue gap for FY 2003-04 due to truing up of expenses and revenue. The details of the revenue gap as estimated by the Petitioners for FY 2003-04 (truing up) and FY 2004-05 and the revenue gap as approved by the Commission is provided in Table 4.4 below:

**Table 4.4: Proposed and Approved Revenue Gap for FY 2003-04 and FY 2004-05**

	2003-04		2004-05		Total (for 2 years)	
	Petition	Commission	Petition	Commission	Petition	Commission
NDPL	370	31	316	-5	685	24
BRPL	232	7	328	16	560	23
BYPL	102	46	235	22	336	68
DTL	641	61	2305	1609	2946	1672
<b>Total</b>	<b>1345</b>	<b>146</b>	<b>3183</b>	1642	4528	1787
Govt Support*			690	690	690	690
Transco Rev Gap after Supp			1615	919	2256	982
<b>Net Revenue Gap</b>	<b>1345</b>	<b>146</b>	<b>2493</b>	952	3838	1097

\* Govt Support for FY 2003-04 considered while estimating the ARR and Revenue Gap of TRANSCO

The figures for FY 2003-04 have been arrived at after considering the actual expenses and revenues of the TRANSCO and DISCOMs in comparison with the approved level of expenses and revenues for FY 2003-04. The total sector revenue gap for FY 2004-05, including the carried forward amount of Rs. 146 Crore pertaining to FY 2003-04 due to truing up, is Rs. 1787 Crore. Considering the revenue at existing tariff, the gap for FY 2004-05 is estimated to be about 48% of the revenue of all the DISCOMs.

As mentioned above, while issuing the Policy Directions, the GNCTD has committed to provide Rs. 3450 Crore during the period FY 2002-03 to FY 2006-07 as a loan to TRANSCO, which is to be used to bridge the gap between its revenue requirement and the bulk supply price that it receives from the Distribution Licensees. The Table 4.5 below shows the committed level of Government support for the period FY 2002-03 to FY 2006-07, as given in the Financial Restructuring Plan approved by the GNCTD.

**Table 4.5: Committed GNCTD Support**

(Rs. Crore)

Year	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07	Total
GNCTD Support	1364	1260	690	138	0	3452 (say 3450 )

The Commission while in its Order on ARR for FY 2002-03 and FY 2003-04 has taken into consideration the Government Support available to TRANSCO for respective years while estimating the sector revenue gap and for setting the tariffs for FY 2003-04. For FY 2004-05, the extent of Government support available to TRANSCO to bridge the revenue gap is Rs. 690 Crore. Considering this, the net revenue gap for FY 2004-05 to be passed on to the consumers is Rs. 1097 Crore. This works out to around 30% of the total revenue from existing tariffs for FY 2004-05.

#### **4.7 Measures to Bridge the Revenue Gap**

Considering the quantum of revenue gap the Commission has explored various options to bridge the revenue gap and the options examined by the Commission are discussed in following Sections:

##### **Option I: Increase in Retail Supply Tariffs:**

The increase in the revenue requirement determined after prudent regulatory process has to be met through increase in tariffs, as the user charges need to reflect the cost of operations. However, considering the quantum of revenue gap, substantial increase in tariff in the range of around 30% would be necessary, if the entire revenue gap has to be met through revision in tariffs, which would result in a severe tariff shock to consumers.

##### **Option II: Efficiency Improvements**

The other option is to assess the expected efficiency improvements and its financial benefits to bridge the revenue gap to certain extent.

##### **Option III : Creation of Regulatory Asset:**

This involves deferring the recovery of the revenue gap and staggering it over a longer period, through creation of a Regulatory Asset, to avoid tariff shock to the consumers in the current year.

The details of the above Options and the Commission's approach are detailed in subsequent paragraphs.

##### **4.7.1 Option I: Increase in Retail Tariff**

In principle, the Commission is of the view that this Option has to be resorted to only as a final measure after exhausting all other practically available measures. The Commission is of the opinion that the burden on the consumers should be minimised to the extent possible and licensees should operate at efficient levels to bridge the revenue gap. As discussed in earlier Sections, the total sector revenue gap for FY 2004-05 as estimated by the Commission after considering the Government support of Rs. 690 Crore, works out to Rs. 1097 Crore.

At the time of restructuring and privatisation, the GNCTD had initially committed a support of Rs. 2600 Crore for the period of five years FY 2002-03 to FY 2006-07. Accordingly, while issuing the Bulk Supply Tariff Order in February 2002, the Commission considered the Government support to the extent of Rs. 2600 Crore. The Commission in its BST Order with regard to quantum of Government Support to bridge the revenue gap had mentioned as follows:

*"The Commission has taken note of the position of the Govt. of NCT of Delhi regarding the issue envisaging turnaround of the Distribution Companies and the viability of the Transmission Company well within five years, enabling TRANSCO to meet the loan liability and at the same time resulting no tariff shocks to the consumers. The Commission is not aware of the assumptions made by the Government to arrive at Rs. 2600 Crore in terms of loss reduction trajectory envisaged and the level*

of tariff increases. However, the accumulated revenue gap for TRANSCO could be higher or lower than the amount estimated by the Government depending upon the level and structure of future retail tariffs and the committed loss reductions. At this point, the Commission opines that any shortfall in the revenue gap, if any, of TRANSCO during the term of five years over and above Rs. 2600 Crore would have to be bridged in the form of Government support, sector efficiency improvements, any other suitable mechanism or a combination of all of the above, to be decided by the Commission at the appropriate stage."

Subsequently, the Government enhanced the support during the five year period from Rs. 2600 Crore to Rs. 3450 Crore based on assumptions about key parameters which were not provided to the Commission at the time of issuance of amendment to the Policy Directions.

Subsequently, the GNCTD provided the copy of Financial Restructuring Plan prepared at the time of privatisation upon a specific request from the Commission during the processing of the ARR and Tariff Petitions for FY 2002-03 and FY 2003-04.

It may be noted that the Financial Restructuring Plan prepared by GNCTD at the time of privatisation, has assumed an average tariff increases for the period FY 2002-03 to FY 2006-07 as given in the Table 4.6 below:

**Table 4.6: Tariff Increases Projected in the Financial Restructuring Plan**

(%)

Year	FY 2002-03	FY 2003-04	FY 2004-05	FY 2005-06	FY 2006-07
Projected Tariff Increase	10%	10%	10%	5%	3%

The Commission would like to highlight that the tariff increase projected in the Financial Restructuring Plan and the estimated Government Support were based on broad assumptions for the period FY 2002-03 to FY 2006-07 with respect to increase in sales, consumption mix, loss reduction trajectory, capital investment programme, operational expenses, etc.

The Commission while determining the ARR on year-to-year basis has to consider the actual revenue and expenses, operational parameters and loss reduction of the previous and current year and estimate of the ARR parameters based on the recent trends for the ensuing year. Based on the estimation of ARR for the Transmission Company and Distribution Companies for FY 2002-03 and FY 2003-04, the Commission estimated the Sector Revenue Gap of Rs. 87 Crore for the two years after considering the Government Support of Rs. 1364 Crore and Rs. 1260 Crore for FY 2002-03 and FY 2003-04, respectively. To bridge this estimated revenue gap of Rs. 87 Crore and to compensate for the loss in revenue due to the rationalisation measures undertaken, the Commission increased the tariff by 5.01% for FY 2003-04. Thus, against the 20% average tariff increase assumed in the Financial Restructuring Plan for FY 2002-03 and FY 2003-04, the increase in

tariffs required to bridge the revenue gap based on actual assessment for FY 2002-03 and estimations for FY 2003-04 was only about 5%.

As discussed earlier, the Government Support during FY 2004-05 has reduced to Rs. 690 Crore as compared to the amount of Rs. 1260 Crore during FY 2003-04. The reduction in Government Support during FY 2004-05 coupled with other factors as discussed in earlier Sections has resulted in substantial revenue gap at the existing bulk and retail supply tariffs during FY 2004-05, estimated at Rs. 1097 Crore. The tariff increase required to meet the entire gap in FY 2004-05 would be around 30%, which is very high and would result in a severe tariff shock to the consumers. However, the Commission is of the opinion that it is not prudent to increase the tariffs of subsidised categories beyond a certain reasonable level. Further, the Commission is of the opinion that the matter of increase in tariff cannot be considered in isolation and the increase in tariff has to be in tandem with the improvement in quality and reliability of supply and the improvements in the system. The situation in Delhi's Power System has not improved substantially and the consumers of Delhi are still facing the problems of power cuts and interruptions particularly during peak summer and peak winter. The reason for load shedding and interruptions in Delhi is not due to non-availability of power - in fact at transmission level adequate power is available to meet the demand of Delhi. The foremost reason for power cuts and supply of unreliable power in State is the poor condition of distribution network. Two out of three DISCOMs viz. BRPL and BYPL have not improved the system and the actual capital investments on various distribution schemes have been much lower than the capital expenditure plan approved by the Commission. The problems have increased as the load on the system has increased in comparison to the previous year and in absence of adequate capital investments, the old system has been overloaded, due to which the deterioration rate of the existing assets has increased. Because of these reasons the quality of supply has not improved and the interruptions have not been reduced substantially. Apart from the quality of supply, the consumers have been also facing enormous metering and billing problems.

The Commission is of the view that at this stage when the quality of supply has not improved to any great extent and the consumers are facing enormous metering and billing problems, it will not be fair inflict a sharp increase the tariffs on them. Considering all the aspects, the Commission has decided to peg the average tariff increase for FY 2004-05 at 10% resulting in an increase in revenue collected of about Rs. 376 Crore.

The Commission would also like to highlight that the category of consumers worst hit are the domestic consumers with respect to quality of supply. This is the category most affected by the improper distribution network as it receives power at 400 volts and the power cuts are more frequently imposed on domestic consumers and interruptions in power supply to domestic consumers are much higher as compared to other categories. Further, the instances of metering and billing problems are also substantially higher in the domestic category as compared to other categories.

The Electricity Act 2003 provides for reduction of cross subsidies by migrating the category wise tariffs towards the cost of supply, and the Commission would also like to comply with this requirement of the Act. However, the domestic consumers have been historically paying subsidised tariffs and any major shift to remove the cross subsidy at this stage when the quality of supply has not improved and consumers are facing metering and billing problems, will steeply hit the domestic consumers. This aspect (reduction of cross subsidy) shall inherently be addressed to a great extent when the loss levels reach acceptable limits and the revenue requirements on this account shall not call for tariff increase (rather they would come down). Considering these aspects, the Commission has pegged the tariff increase of domestic category to the average tariff increase of 10%. The Commission will attempt to reduce the cross subsidy by moving domestic tariffs towards the cost of supply once the efficiency of operation and quality of supply has improved and metering and billing problems are minimised.

The estimated increase in revenue on account of the tariff revision approved by the Commission is Rs. 376 Crore out of the total unbridged revenue gap of Rs. 1097 Crore. For bridging the balance revenue gap of Rs. 721 Crore, the Commission has explored other options such as efficiency improvements and creation of Regulatory Asset.

#### **4.7.2 Option II: Efficiency Improvements**

The Commission has also explored the option of bridging the revenue gap through efficiency improvements. The Commission strongly feels that during the ensuing year FY 2004-05, there is a good chance for substantial overachievement in reducing AT&C losses and the improvement in efficiencies in terms of over achievement in AT&C loss reduction can bridge the estimated revenue gap to some extent. However, as elaborated in earlier Sections, in accordance with the Policy Directions, the Commission is bound to consider Accepted Bid Level AT&C loss reduction target while determining the ARR and setting the tariffs for the ensuing year 2004-05. Therefore, for the said purposes, it is not appropriate to consider efficiency improvements during the ensuing year in terms of over achievement in AT&C loss reduction for bridging the revenue gap.

##### **4.7.2.1 Importance of over achievement of Efficiency Gains**

The Commission wishes to highlight the importance of efficiency gains in achieving the goals set out in the reform process. This requires improvements in the functioning of the licensee to over - achieve the performance targets set out in the Policy Directions. The investments made towards system improvement as a part of APDRP including the metering programme and improvements in billing and collection have resulted in some improvement. The significant investments planned under the APDRP scheme, along with other capital and R&M investments approved for FY 2003-04 and FY 2004-05, were not envisaged at the time of bidding. These include system augmentation and commercial loss reduction measures on account of energy audit activities like metering and billing, consumer coding, feeder and Distribution Transformer (DTR) metering, and part outsourcing of metering and billing proposed during the two years. The Commission, therefore, expects that the



higher investments during the initial years should lead to a far more aggressive AT&C loss reduction trajectory as compared to the committed loss reduction trajectory.

Based on the submissions by the DISCOMs, the actual AT&C losses reduction achieved by all three DISCOMs in FY 2003-04 was higher than the bid levels for FY 2003-04. Thus the trend of over achievement in AT&C loss reduction target has commenced from FY 2003-04, even when the investments made by two DISCOMs were substantially lower than the investment plan approved by the Commission in its Order of June 26, 2003. While appreciating the efforts put in by the licensees, the Commission expects that this tempo will be continued with added vigour in the coming years and the licensees will strive to surpass the efficiency targets set out in the GNCTD's Policy Directions. The extent of investments proposed by DISCOMs has been discussed in earlier Section. Considering the achievement made in FY 2003-04 and the proposed investment programme, the Commission is optimistic in this regard, and is of the opinion that there will be substantial over achievement in reduction in AT&C loss levels over the bid and minimum levels. A one-percentage point reduction in AT&C losses in the Delhi power sector is expected to result in additional surplus of Rs. 90 Crore in the system at the current level of sales and tariffs. The AT&C loss reduction targets as per the Accepted Bids and Minimum Bid levels stipulated in GNCTD's Policy Directions for FY 2004-05 is about 4% and 4.5 % respectively for the sector.

As per the Policy Directions, the revenues on account of over achievement and under achievement has to be shared between consumers in the form of tariff reduction and DISCOMs based on cumulative underachievement and overachievement in lines with the principles of Policy Directions. Considering the cumulative AT&C loss reduction target for two years FY 2002-03 and FY 2003-04, two DISCOMs i.e. NDPL and BRPL have already over-achieved the AT&C loss reduction and hence the benefit of overachievement in future years will be available in the form of lower ARR from FY 2004-05 onwards. However, in case of BYPL, over achievement in FY 2003-04 does not completely compensate BYPL for under achievement of FY 2002-03. Hence, the over achievement in AT&C loss reduction in future years in BYPL has to first set off against the cumulative under achievement till the end of FY 2003-04. Once the revenue from over achievement is set off against the cumulative underachievement till FY 2003-04, the benefits of over achievement in BYPL will also start flowing in the ARR. By following the mechanism of treatment of overachievement of AT&C loss targets as per the Policy Directions, over achievement of 0.5% in FY 2004-05 will lead to a reduction of around Rs. 30 Crore of revenue requirement of the Sector, as this portion is completely passed on to the consumers. In case the overachievement is higher than 0.5%, the incentive will be shared between the consumers and the licensees, which will again effectively lead to a reduction in ARR of the licensees. However, in the case of years 2005-06 and 2006-07, as the bid level loss reduction targets are higher than the minimum loss reduction target, the entire benefit of over achievement will be shared between the consumers and the licensees. For example 1% improvement in the loss levels over the bid level, will generate additional revenue of Rs. 90 Crore per annum, estimated at current level of tariff and sales. This additional revenue will be shared equally between the

consumers and licensee (i.e. Rs. 45 Crore each). This feature highly incentivises the licensees to over achieve and exceed the loss reduction targets.

The Commission further opines that for the success of reform and restructuring and to achieve the viability of the Sector by FY 2006-07, it is essential to exceed the AT&C loss reduction targets as compared to minimum AT&C loss reduction targets stipulated in the Policy Directions.

#### **4.7.3 Option III: Creation of a Regulatory Asset**

##### **Need for Regulatory Asset**

As discussed in previous Section, the total consolidated revenue gap of all the utilities (TRANSCO and DISCOMs) during FY 2004-05 as estimated by the Commission works out to Rs. 1787 Crore which is 48% of revenue at existing tariffs. The committed support from the GNCTD for FY 2004-05 is Rs. 690 Crore. After considering this Government support, the net revenue gap of the utilities works out to Rs. 1097 Crore. As mentioned earlier, if the entire net revenue gap is to be bridged by increase in tariffs, the average tariff increase required would be to the extent of 30%.

##### **Concept of Regulatory Asset:**

Creation of a Regulatory Asset is a mechanism to carry forward a portion of the revenue requirement for a particular year that has not been included while designing the tariffs for that year. The amount equivalent to the Regulatory Assets is thus effectively removed from the revenue requirement for the year in question. Such a situation generally arises when the projected revenues are significantly lower than the revenue requirement and it is not feasible to recover the entire amount either through increase in tariffs or through other means such as Government subsidy during that year. In such situations, the Regulator may choose to create a Regulatory Asset equivalent to the uncovered expenses and allow the licensee to amortise the same over a period of time. The Regulatory Asset mechanism is resorted to mainly to avoid tariff shocks to the consumers in a given year, while at the same time allowing the utility to recover the costs in a reasonable manner so as to protect its interests as well as those of the consumers.

Generally, Regulatory Assets are amortised over a reasonably long period of time, say 3-7 years, so as to even out the sudden increase in tariff. It is also common that over the period of amortisation, financing cost of the outstanding Regulatory Asset and the funds required to retire the Regulatory Asset through amortisation is allowed by the Regulators. In such cases, the Revenue Requirement for the future years would include the amount towards amortisation of the Regulatory Assets as well as the carrying cost of the Regulatory Assets. This allows spreading the impact of tariff increases over a period of time and thereby mitigates the possibility of a rapid and upward pressure on tariffs.

In view of the circumstances in the Delhi Power sector as explained in the above Sections, the Commission feels it is imperative to resort to the mechanism of Regulatory Assets in the interest of

viability of the sector and also to ensure that the consumers are not subjected to an unusually high tariff increase after the last tariff increase effected in July 2003.

#### **4.7.3.1 Estimated Regulatory Assets**

Out of the total revenue gap, the revenue gap to be bridged from the increase in tariff as approved by the Commission works out to Rs. 376 Crore. The balance revenue gap of Rs. 721 Crore is proposed to be treated as a Regulatory Asset to be amortised in future years through various measures.

The Commission would like to highlight the fact that the total revenue gap estimated for FY 2004-05 is based on information submitted by the Petitioners and certain assumptions based on past trends. However, the actual revenue gap for the year might vary based on the actual performance during the year. Hence, the quantum of uncovered/excess Revenue Gap that will be permitted under truing up mechanism after prudence check, and the Regulatory Assets will also undergo a change after the truing up process for FY 2004-05.

#### **4.7.3.2 Proposed Amortisation Mechanism for the Regulatory Asset**

The Commission proposes to amortise the Regulatory Asset through a combination of several measures such as through the efficiency gains i.e. over-achievement in AT&C losses, and inclusion of certain component of Regulatory Asset in future years' ARR, (when the revenue gap for that particular year is not substantial) and any other appropriate measure..

The Commission while amortising the Regulatory Asset will also consider the carrying cost of the Regulatory Asset. The period of amortisation of the Regulatory Asset and the amount to be amortised each year is contingent upon several factors such as Revenue Gap approved by the Commission for the particular year including the ensuing year, actual AT&C loss reduction during the year, etc. The Commission is of the opinion that it would be ideal to amortise this Regulatory Asset fully amortises within the Policy Direction Period i.e. by FY 2006-07. At this stage, it is difficult to define the quantum of amortisation in future years. However, in principle, while deciding the quantum of Regulatory Asset to be amortised, the Commission will consider the following:

Actual AT&C loss reduction achieved by the DISCOMs

AT&C loss reduction proposed by the DISCOMs.

Actual Revenue Gap/Surplus for the previous year, if any, after Truing up

Estimate of Revenue Gap for the sector during the ensuing year

### **4.8 Apportionment of Regulatory Asset between the Utilities**

The total sector revenue gap estimated by the Commission for FY 2003-04 and FY 2004-05 is Rs. 1097 Crore at the existing retail supply tariff and bulk supply tariff. As highlighted in the Table 4.4, out of total revenue gap of Rs. 1097 Crore, the Commission has estimated the revenue gap of DISCOMs at Rs. 115 Crore and that of TRANSCO at Rs. 982 Crore.

However, it is important to note that the distribution of revenue gap between DISCOMs and TRANSCO is primarily attributable to methodology of determination of the Bulk Supply Tariff

specified in the Policy Directions (based on paying capacity of the DISCOM after considering all the prudent expenses and 16% Return on Equity). The Policy Direction requires that the determination of Bulk Supply Tariff be inter-linked with the retail tariff and efficiency parameters of DISCOMs so as to support the uniform retail tariff across all the DISCOMs. The Bulk Supply Tariff currently being paid by the DISCOMs is substantially lower than the average cost of supply of TRANSCO. Under this mechanism, the revenue gap for TRANSCO would appear higher than that of DISCOMs as TRANSCO does not receive full cost of supply. Due to this mechanism of computing Bulk Supply Tariff, the TRANSCO and DISCOMs are inter-woven and work in coordination for the benefit of the sector. For example, any overachievement would improve the paying capacity of DISCOM and in turn could help in increasing Bulk Supply Tariff and thereby revenues of TRANSCO. Hence, it will not be appropriate to consider the revenue gap of each of the utility in isolation while designing strategies to bridge the gaps.

As discussed in earlier Sections an average tariff hike of 10% bridges the revenue gap by Rs. 376 Crore out of the total revenue gap of Rs. 1097 Crore. The Commission proposes to consider the remaining revenue gap of Rs. 721 Crore as a Regulatory Asset. Further the Commission has proposed to amortise the Regulatory Asset through a combination of (a) efficiency gains i.e. overachievement in AT&C loss reduction targets; (b) inclusion of certain component of Regulatory Asset in future years ARR for determination of tariff when the revenue gap for that particular year is not substantial; and (c) any other measure the Commission may feel appropriate. Considering these amortisation measures, the Regulatory Asset needs to be apportioned amongst TRANSCO and DISCOMs keeping in mind the scope for efficiency improvements and potential of increase in revenue on account of tariff increase during the remaining tenure of the Policy Direction period.

As the revenue of TRANSCO is linked to the paying capacity of each of the DISCOMs, which in turn is linked to the efficiency improvement and level of retail tariff, it stands to reason to apportion a substantial portion of the Regulatory Asset to the DISCOMs.

However, the Regulatory Asset should also be apportioned to TRANSCO to the extent that there is scope for it to be amortised through tariff increase and efficiency improvement. During the year FY 2003-04, TRANSCO's revenue gap is attributable not only to recovery of revenue lower than its cost of supply but also to the loss arising from the not so efficient operations under the ABT regime. In FY 2003-04, the TRANSCO has under-recovered about Rs. 92 Crore on account of under drawal considering an average UI charge and average cost of purchase. An efficient scheduling of power purchase is desirable on the part of TRANSCO to reduce the overall costs of its operation. Considering the potential and scope for efficiency improvement and tariff increase in future years for TRANSCO, the Commission has apportioned Rs. 100 Crore of the gap as a Regulatory Asset to TRANSCO.

The balance gap of Rs. 621 Crore is proposed as a Regulatory Asset to be apportioned amongst the DISCOMs. An ideal approach would be to apportion the Regulatory Asset considering realistic assessment of efficiency improvements and revenue increase potential factoring in the tariff

increase and sales increase for each of the DISCOMs. However as a realistic assessment is not possible at this stage, the Commission is constrained to apportion the Regulatory Asset based on a parameter, which reflects the potential of amortisation of the Regulatory Asset in each DISCOM.

While there are no set precedents for the basis of apportionment, the Commission has evaluated several options considering their linkages to the proposed amortisation mechanism. Following are the parameters considered and their relevance to the amortisation mechanism:

**Revenue of each of the DISCOM:** Revenue, is an indicator of the scale of the business operations of a utility and, reflects any increase in tariff in full and any reduction in AT&C loss (to the extent the AT&C loss reduction reflects in collections). However, revenue is not representative of operational efficiency improvements other than reduction in commercial loss and increase in collection efficiency.

**Energy purchase by the DISCOM:** Energy purchase reflects any reduction in AT&C loss to the extent it translates to a decrease in quantum of energy requirement. This is subject to demand for energy not dropping in the period. However, this parameter reflects neither an increase in tariff nor an improvement in other operational efficiency.

**Power purchase cost of the DISCOM:** Power purchase costs is a function of energy purchased by the DISCOM. Additionally, as power purchase cost is determined by the paying capacity of the DISCOM, it reflects an increase in revenue and improvement in operational efficiency. However, the power purchase cost for the past financial year does not represent the potential of future efficiency improvements.

**Revenue gap of the DISCOM:** Revenue gap of each of the DISCOMs for FY 2003-04 is representative of the extent of requirement of truing up on account of difference between estimated revenues and costs and actual revenues and costs. Retail and Bulk Supply Tariff are determined to meet the revenue gap of each of the DISCOMs. Hence, revenue gap cannot be utilised as a base parameter for apportionment of the Regulatory Asset.

None of the parameters considered above fully represents the desired apportionment mechanism. While deciding on the basis, it would also be pertinent to look at the ratio of apportionment, if a particular parameter were chosen as a basis of apportionment. The Table 4.7 captures the proportion of apportionment of the Regulatory asset to the various DISCOMs for each of the parameters as the basis of apportionment:

**Table 4.7: Options for Apportionment of the Regulatory Asset:**

Sr No.	Description	BRPL	BYPL	NDPL	Total
1	Revenue for FY 2003-04 (Rs. Crore)	1614	835	1163	3614
2	Energy Input for FY 2003-04 (MU)	8096	5192	5552	18840
3	Power Purchase Cost for FY 2003-04 (Rs. Crore)	1276	660	871	2807
4	Apportionment ratio based on Revenue (%)	45%	23%	32%	100%
5	Apportionment ratio based on Energy Input (%)	43%	28%	29%	100%
6	Apportionment ratio based on Power Purchase Cost (%)	45%	24%	31%	100%

As may be observed from the above Table, under all the three options there is not a much variation in the proportions. Based on above the Commission believes that Revenue, being reflective of scale of operations, is the best proxy available for apportionment of the Regulatory Asset.

The Commission apportions Rs. 735 Crore as Regulatory Asset in proportion to Revenue of each of the DISCOM. The following Table 4.8 details the apportionment of the Regulatory Asset:

**Table 4.8: Options for Apportionment of the Regulatory Asset:**

Sr. No.	Company	Regulatory Asset Apportionment Ratio amongst DISCOM (%)	Regulatory Asset Apportionment Ratio amongst all players (%)	Regulatory Asset (Rs. Crore)
1	BRPL	44.7%	38.5%	277
2	BYPL	23.1%	19.9%	144
3	NDPL	32.2%	27.7%	200
4	Subtotal DISCOMs	100%	86.1%	621
5	TRANSCO		13.9%	100
<b>6</b>	<b>Total</b>		<b>100%</b>	<b>721</b>

## **5. Rationalisation of Tariff**

As elaborated in earlier Sections, as per the Policy Directions, the retail tariff across the State has to be uniform till the tenure of Policy Directions i.e. upto FY 2006-07. Therefore, the Commission feels appropriate to discuss the tariff rationalisation suggestions proposed by all the three DISCOMs (NDPL, BRPL and BYPL) and other stakeholders in this Chapter.

### **5.1 NDPL's Suggestions**

NDPL, while suggesting measures for rationalisation of tariff has mentioned that the NDPL is making the tariff rationalisation recommendations not with the objective of earning any extra revenue but for making the commercial process simpler and consumer friendly. NDPL has requested the Commission to revise the tariff such that it is revenue neutral for the NDPL. NDPL has suggested that a mid-term review of the rationalisation measures would be necessary to assess the revenue neutrality. The rationalisation measures proposed by NDPL have been summarised below:

#### **5.1.1 Merging of Non-Domestic, MLHT, SIP and LIP Consumers**

NDPL has suggested the merger of some of the existing categories viz., Non-Domestic (NDLT), MLHT, SIP and LIP consumers, to reduce the number of categories and to curb malpractices and litigation. In view of the provisions of the DERA which provide for differential tariff based on the purpose for which electricity is being used, the NDPL has pointed that there is no rationale for charging differential tariff to these categories, as these consumers use electricity for the same purpose i.e. business purposes.

#### **5.1.2 kVAh based Tariff**

NDPL has proposed kVAh billing for categories such as Non-Domestic, MLHT, SIP and LIP consumers having sanctioned load more than 15 kW as this will ensure automatic monetary discipline with regard to maintaining power factor and in such case Power Factor surcharge will become redundant. NDPL has further suggested that in the case of consumers having electro-mechanical meters, billing can be allowed on kWh basis until such time the meters are replaced by electronic meters. NDPL has also proposed an alternative that such consumers may be billed on kVAh basis by applying an average power factor of 0.85, till such time as the electronic meters are installed.

#### **5.1.3 Slab-wise Tariff for LIP and SIP**

NDPL has proposed slab-wise Tariff for LIP and SIP on the basis of number of electrical units consumed rather than the sanctioned load in kW. For the purposes of levying Fixed Charges, NDPL has proposed to use MDI information from the electronic meters. NDPL has also suggested that if the Commission, for any specific reason, decides to continue with LIP and SIP categories, the MDI information should be specified as the basis for deciding LIP/SIP categorisation. Further, NDPL has

proposed that in case the MDI shows load of 100 kW or above for a SIP consumer, he should be assessed on LIP basis for the past six months and for the next twelve months, provided in the next twelve months, the MDI remains below 100 kW.

#### 5.1.4 Fixed charges linked to MDI

NDPL has stated that excess consumption in proportion to the normative consumption based on the sanctioned load is rampant across all categories of consumers leading to loss of revenue for the Utility and submitted that MDI compatible meters are being installed for large consumers. MDI however is only a measure of current operational maximum demand. This MDI is bound to change as per business requirement and therefore the network capacity has to be built with a margin of about 25% for future expansion. NDPL has requested the Commission to factor this point while determining the fixed costs based on MDI. Pending installation of MDI meters, NDPL has proposed the load factor for the purpose of computation of Maximum Demand for levy of Fixed Charges as given in Table 5.1 below:

**Table 5.1: Load factor for the purpose of computation of Maximum Demand for levy of Fixed Charges**

Consumer Category	Load
Domestic	96 units/kW/month
Industrial	150 units/kW/month (till Electro-Magnetic Meters continue, else MDI would prevail)
Commercial	165 units/kW/month (till Electro-Magnetic Meters continue, else MDI would prevail)

Further, NDPL has suggested that the applicability of maximum demand charges should be calculated based on the average maximum demand assessed in two billing cycles during the past one year (kWh consumption converted to kW as above) and accordingly fixed charge should be levied for the next twelve months.

#### 5.1.5 Tariff for Agriculture for load above 10 kW

NDPL has pointed out that the existing Tariff Schedule does not mention the Agriculture Tariff for requirements above 10 kW. NDPL has recommended that for load requirements of above 10 kW, normal tariff as applicable for Non-Domestic Tariff shall be made applicable.

#### 5.1.6 Tariff for Single Point Delivery (SPD) Contractor

NDPL has submitted that while DISCOMs and the Commission are reviewing the existing system of SPD Contractor in view of the Electricity Act 2003 and working out means for gradual



transformation to Franchisee concept, in the meantime, the NDPL has requested the Commission to endorse the prevailing commercial agreement, allowing 27% deduction in energy bill of the SPD Contractor, which was the practice followed by the erstwhile DVB.

## **5.2 BRPL's and BYPL's Suggestions**

### **5.2.1 Fixed Charges**

BRPL and BYPL have stated that the Fixed Charge component of the two-part Tariff fixed by the Commission for all consumer categories should be increased. They mentioned that almost 30% of its total expenses are fixed in nature and at present only 23% of the fixed costs are recovered through the levy of Fixed Charges, which translates to only 6.9% of the total expenses. BRPL and BYPL has given a comparison of Fixed Charges in neighbouring areas such as Gurgaon, Ghaziabad, Noida, Jaipur, and Chandigarh to show that the Fixed Charges are the lowest in comparison with the neighbouring utilities. BRPL and BYPL have submitted that the Fixed Charges should be revised upwards to the levels existing in that of neighbouring areas.

### **5.2.2 Separate LT Mixed Load Tariff Category**

BRPL and BYPL has stated that although separate meters are provided for mixed loads with residential and commercial load, the consumption recorded in the commercial meters is far lower than that recorded by the residential meters. In such situations, it is suspected that consumers are loading most of their appliances on the residential meter and the utility is unable to determine the actual usage and levy charges accordingly. Hence, they have suggested a separate tariff category for mixed commercial and residential loads and have proposed a tariff, which is an average of the highest domestic slab and the tariff applicable to the commercial tariff.

### **5.2.3 Monthly Billing**

BRPL and BYPL has proposed monthly billing system for all consumers starting from FY 2004-05 and have stated that the details of the process of migration of the consumers currently being billed on bi-monthly basis are being worked out.

### **5.2.4 Tariff for Delhi Metro Rail Corporation**

In the last Tariff Order, the Commission had created a special Tariff Category for Delhi Metro Rail Corporation (DMRC) stating that it was "a new consumer at 220 kV and with differentiating nature of services and operations" and specified special Tariff of 230 paise per kVAh. BRPL and BYPL have submitted that in Section 8.6 (Other Terms and Conditions of Tariff) of the Tariff Order, under the Character of Service of DMRC category, the specification reads as "AC 50Hz, 3 $\phi$ , 220/66/33/11 kV". BRPL and BYPL have mentioned that since the special Tariff is applicable only to consumers at 220 kV, the character of service available to it should be "AC 50Hz, 3 $\phi$ , 220 kV" and for all other voltage levels, the tariff applicable to similarly placed consumers should apply.

### **5.2.5 Maintenance of Streetlights**

Regarding the maintenance of the Street Lights, the BRPL and BYPL have referred to the earlier proposal submitted to the Commission and have stated that the current level of maintenance charges are grossly inadequate and do not even cover the direct expenses. Further, the BRPL and BYPL have emphasised that the current arrangements are only for sustaining the system and should not be extended beyond FY 2003-04.

### **5.2.6 Low Power Factor Surcharge**

BRPL and BYPL have stated that as per clause 4.9.2.14 of the Commission's Order issued on June 26, 2003, it is DISCOM's responsibility to provide the specification of capacitor equipment and installation at consumer's premises in case the consumer fails to install the same. The BRPL and BYPL have requested the Commission to specify the provisions relating to the applicability of Low Power Factor surcharge so that the consumer may be held liable for not providing adequate installation of shunt capacitors for maintenance of the required power factor. BRPL and BYPL requested the Commission to modify the provisions relating to the application of low power factor surcharge.

Several objectors have suggested that the power factor surcharge should only be levied based on actual kWh and kVAh readings.

## **5.3 Commission's Views**

### **5.3.1 Rationalisation of Tariff categories**

Several objectors have appreciated the tariff rationalisation measures taken up by the Commission in the previous Tariff Orders. The Commission believes that tariff rationalisation, as of now, is a dynamic process and it is essential that the same is attempted based on the experience gained over the period of time. The Commission has carefully examined the issues raised by the objectors and noted the different suggestions given by the objectors. While determining the tariff, the Commission has attempted to balance the interests of the licensees and the consumers. The Commission in the following Sections have discussed its views on various tariff rationalisation issues suggested by DISCOMs (NDPL, BRPL and BYPL) and the issues raised by stakeholders.

#### **On suggestions made by NDPL**

### **5.3.2 Merging of Non-Domestic, MLHT, SIP and LIP Consumers**

NDPL has suggested rationalisation of the consumer categories and the tariffs by merging some of the existing categories, viz., Non-Domestic, MLHT, SIP, and LIP, thereby reducing the number of tariff categories. However, as per the existing category-wise tariffs, the difference in the tariff applicable for these categories is substantial. The Commission is of the view that immediate merger of these categories would result in substantial increase in the tariff for some categories or substantial reduction in tariff for the others. The Commission is of the view that the tariff rationalisation process

should not lead to tariff shock for some of the consumers. Further, LIP consumers have provided space in their premises for installation of transformers and need to be treated differently. Besides, merger of the above categories may have many practical implementation issues. The Commission has, therefore attempted to reduce the difference in the tariff between NDLT and MLHT and between SIP and LIP categories and has not merged these categories.

### **5.3.3 kVAh based Tariff**

The NDPL has requested the Commission to introduce kVAh billing for Non-Domestic and Industrial consumers with connected load more than 15 kW. In general, the objectors have welcomed the introduction of kVAh tariff.

The Commission introduced kVAh billing for LIP/MLHT vide its Order issued on January 1, 2001. In the Order issued on June 26, 2003, the Commission had directed the NDPL 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 encourage efficient use of electricity. Further, higher power factor eventually helps the system by lesser loading and reduction in losses.

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 the consumers for whom the electronic meters are installed. Till electronic meters are installed the kWh-based tariff only shall be applicable.

### **5.3.4 Slab-wise Tariff for LIP and SIP**

The NDPL has also proposed to introduce the slab system for LIP and SIP consumers so that consumers with higher consumption would have to pay lower tariffs. The Commission finds no merit in the NDPL's argument for introduction of the slab system for LIP and SIP category based on the consumption due to following reasons :

It encourages higher consumption by these categories due to lower tariff while the additional power purchase cost on this account will be substantially higher than the average power purchase cost.

The concept is in contradiction to the philosophy of energy conservation  
This concept is just opposite to slab system existing in domestic category.

On the issue of levying Demand Charges based on LIP tariff for SIP consumers with sanctioned load exceeding 100 kW, the Commission is of the view that the Demand Charges based on LIP tariff for SIP consumers shall be applicable only in case MDI meter reading is more than 100 kW for consumers in the SIP category. In case of MDI meter reading is more than 100kW for consumers in the SIP category, the assessment shall be based on LIP tariff for the next 6 months, provided MDI reading for the next 6 months remains below 100 kW. For this purpose, the NDPL shall reset the MDI meters for every billing cycle.

#### **5.3.5 Tariff for Agricultural load above 10 kW**

The Commission does not agree with the NDPL that the existing provisions of the Tariff Order do not specify the tariff for agricultural load above 10 kW. In the Tariff Order issued on June 26, 2003, the Commission has addressed this issue. As per the existing tariff provisions, the load permitted for agricultural activities under agriculture tariff is 10 kW. For load above 10 kW and for purposes other than agriculture, the consumer may take a separate connection, which may be treated under relevant tariff category of use. If the load is more than 10 kW and is used for agriculture purpose only, the consumer may get the load divided and take supply through two meters, but the agriculture tariff shall be available for only one meter and upto a load of 10 kW. The other connection will be treated as non-domestic. In all such cases where two meters have been installed, electronic meters with MDI shall be installed for 10 kW agricultural connections. In case MDI reading exceeds 10 kW, Licensee may take action as per Section 126 of the Electricity Act 2003.

#### **5.3.6 Fixed charges linked to MDI**

The Commission has already directed the NDPL to install electronic meters for Non-Domestic and Industrial consumers with load of more than 10 kW. Further, the Commission has also specified the MDI based tariff for SIP/NDLT consumers, which will be applicable for consumers with electronic meters. The suggestion made by NDPL of levying fixed charges based on assumed load factor is more or less similar to normative consumption concept. The normative consumption concept was abolished by the Commission in its Order dated June 26, 2003 due to several reasons as discussed in that Order. Therefore, the present system of levying Fixed Charges based on sanctioned load and MDI should continue.

#### **5.3.7 Tariff for Single Point Delivery (SPD) Contractor**

The Commission has received a separate Petition regarding the SPD Contractors and is examining this issue separately. Till the franchisee mechanism is developed and implemented for supply of power to SPD Contractors, the existing system shall continue to be in force.

#### **On the Suggestions by BRPL and BYPL**

### 5.3.8 Fixed Charges Coverage

The BRPL and BYPL have suggested that the Fixed Charges should be increased to recover the fixed cost and have requested the Commission to increase the Fixed Charges to levels prevalent in the neighbouring States. Many objectors have argued that Fixed Charges should be abolished till uninterrupted supply is provided by the Licensee. Some of the objectors have stated that the Fixed Charges should not be increased from the present level as the Commission has determined the Fixed Charges considering all aspects. Several objectors have also objected to the NDPL's proposal to introduce Fixed Charges for domestic category based on 96 units/kW/month. In general, several Objectors are of the view that Fixed Charges should be introduced based on MDI.

The Commission in its previous Tariff Order dated June 26, 2003 has introduced Fixed Charges for most of the categories to recover certain component of the fixed costs and has mentioned that the Commission would like to move the tariffs linked to cost of supply. The Commission agrees that with the existing tariff structure, the recovery from fixed charges is very nominal as compared to the fixed costs of the Licensees. The Commission has attempted to increase the recovery of fixed costs of the utility from the Fixed Charges while determining the tariffs. The Commission is of the opinion that the recovery from Fixed Charges has to be increased in a gradual manner to minimise the billing impact to the consumers. Further, the Commission is of the view that the entire fixed cost should not be recovered through Fixed Charges as in such cases, there will be no incentive for the utility to provide electricity supply to the consumers as their entire fixed costs are recovered from Fixed Charges. Considering this aspect, the recovery from Fixed Charges has to be increased gradually up to reasonable proportion of the fixed costs.

### 5.3.9 Monthly Billing

The BRPL and BYPL have also proposed the introduction of monthly billing cycle to all consumers commencing from FY 2004-05. Many objectors have stated that the present system should continue and monthly billing should only be implemented after ensuring that bills are delivered in time.

The Commission has noted that there are enormous billing problems in the system, that the Commission has received in the past and it continues to receive a number of billing complaints from the consumers. The Commission is of the view that the monthly billing system will further escalate the billing problems rather than reducing it. Therefore, the Commission is not in favour of introducing monthly billing system. **The Commission directs the BRPL and BYPL to take necessary action to reduce the billing problems in the present system.**

#### **5.3.10 DMRC Tariff**

BRPL and BYPL have submitted that DMRC has requested the Commission to maintain the tariff as per earlier Orders. DMRC has also requested the Commission to direct the NDPL to provide single point delivery for establishments and residential colonies as and when required by DMRC. The Commission has determined the tariff applicable to DMRC for supply at 66 kV, the details of which have been discussed in Chapter 6 of this Order.

#### **5.3.11 Tariff for Mixed Loads**

BRPL and BYPL have proposed the introduction of a separate tariff category for mixed commercial and residential loads and suggested a tariff, which is the average of the rate applicable to the highest slab in domestic category and the commercial tariff. The BRPL and BYPL have also pointed out that a similar tariff category exists for the bulk supply segment such as Mixed Load High Tension (MLHT). The Commission is of the view that the issue raised is addressed adequately in the present system. At present, separate meters are being provided for domestic and commercial load in the case of consumers having mixed load and there is no need to have separate tariffs for mixed load. The Commission is of the view that introduction of a new category is against the principle of tariff rationalisation of moving the tariffs for all the categories towards cost of supply.

#### **5.3.12 Low Power Factor Surcharge**

BRPL and BYPL have requested the Commission to modify the provisions of low power factor surcharge to make the consumer liable for installing adequate shunt capacitors. The Commission has examined the issue and agrees with the DISCOM's suggestion that the responsibility of installing adequate shunt capacitor for maintaining the power factor lies with the consumer. However, the DISCOMs should advise the consumer to bring his power factor within specified limits and also suggest measures including specifications of shunt capacitors if such advice is sought for.

The Commission in its Tariff Order dated June 26, 2003 has mentioned that the LPF penalty should be levied only when it is established by measurements with equipment/meters that the average power factor of the installation is less than the required value and the power factor correction equipment provided is either non-functional or inadequate.

The Commission, therefore, does not propose any change in the mechanism of levying LPF surcharge and LPF surcharge shall be only levied when it is established by measurements with equipment/meters that the average power factor of the installation is less than 0.85.

### **5.3.13 Maintenance of Streetlights**

The BRPL and BYPL have requested the Commission to enhance the charges for maintenance of streetlights. The Commission has dealt with this issue separately and has issued the Order on charges for maintenance of streetlights on March 16, 2004 which arrangement is being continued as discussed in Chapter 6.

## **5.4 Commission's View on other tariff rationalization issues raised by the Objectors**

In addition to above issues, the objectors in their written submissions as well as during the public hearings raised several issues related to Tariff Rationalisation, which are discussed in Chapter 2 of the Order. The Commission's views on such issues are discussed in following Sections.

### **5.4.1 Reduction of Slabs for Domestic Category**

Several objectors have argued that the number of slabs for the domestic category should be reduced, as the present structure gives undue benefit to the consumers having low consumption. Some objectors have suggested that the number of consumption slabs should be reduced to two, while some consumers have suggested abolition of all slabs.

NDPL has submitted that it agrees with the suggestion that the present system of slab tariffs for domestic category is inefficient and hence the slabs should be eliminated. The Commission has considered the views of the objectors and the NDPL, and has decided to reduce the number of slabs. However, considering the overall tariff philosophy that the consumers should not be subjected to tariff shock, the Commission has initiated the process of gradual cross-subsidy reduction in previous Orders, and has continued the process in this Order also. Hence, it is not feasible to abolish the slab system in the domestic category. Further, by analysing the consumption data in blocks of 50 units submitted by the DISCOMs, the Commission is of the opinion that a complete restructuring of existing slabs will lead to substantial tariff shock to consumers having average consumption within lower slab and on the other hand will prove to be beneficial for the consumers having average consumption in the higher slabs. The average consumption of domestic consumers is around 200 units per month. In the existing slab system, most of the consumers are paying tariffs for first two slabs depending upon the consumption. Thus, merging of first two slabs will not lead to substantial increase for most of the consumers. Therefore, the Commission has merged the first two slabs and created a single slab for consumption from 0-200 units. Thus, the three slabs applicable for domestic category will be as follows:

Consumption between 0-200 units per month  
Consumption between 201-400 units per month  
Consumption above 401 units per month

#### **5.4.2 Enhancing the Limit for SIP from 100 kW to 150 kW**

Some stakeholders have requested the Commission to raise the limit for classification under SIP category from 100 kW to 150 kW/250 kW. The Commission has already expressed its view that it wishes to gradually move the tariffs towards cost of supply. The Commission is of the view that there are specific reasons for maintaining the limit for classification under SIP category at the existing level of 100 kW. The economic principle requires that consumers be differentiated based on the cost of serving them. Since the cost of serving a consumer depends upon, *inter-alia*, the voltage at which supply is taken by the consumer, the Commission feels that differentiating consumers based on load alone is not correct. Prima facie, the consumers should be classified on the basis of the voltage of supply. Besides, there has to be differentiation between SIP and LIP consumers as LIP consumers provide space for transformers and hence qualify for the differential treatment. Hence, the Commission is of the view that the present system of limiting the load for classification of SIP consumers upto 100 kW should continue. **Further, the Commission also directs the Petitioner to submit a Base Paper on this issue to the Commission, within 3 months from the date of issue of this Order.**

#### **5.4.3 Separate Category for Hospitals**

As per the existing tariff schedule, the Government Hospitals are charged the tariffs applicable to Domestic Category and the Private Hospitals/Nursing Homes are charged the tariffs applicable to Non-Domestic Category. The Commission would like to continue with the existing mechanism, as the Private Hospitals are primarily commercial establishments.

#### **5.4.4 Tariff for CGHS**

The Commission received a few representations from Cooperative Group Housing Societies (CGHS) in connection with the provision of Single Point Delivery (SPD) connections. In one such representation received from Federation of Cooperative Group Housing Societies, Dwarka, the Federation has contended that SPD connections can still be provided under the Electricity Act 2003, though BRPL and BYPL have discontinued giving SPD connections to the CGHS. On this issue, a meeting was convened in the Commission's office on February 7, 2004 with the members of the Federation and the CEO of BRPL and BYPL. Sections 5 and 13 of the Electricity Act, 2003 related to SPD connections, were discussed in the meeting and it was agreed that it would be in public interest to devise some means to mitigate consumers' interests, especially, keeping in view that the Electricity Act, 2003, itself visualised problems of transition. The Commission, vide its letter dated February 20, 2004 directed the licensees to undertake the following course of action:

All societies who have applied for Single Point Delivery connection on or before December 31, 2003 and paid the requisite fee by that date would be provided with such a connection. The societies would give an affidavit that they would abide by all instructions which may be issued by the Government/Commission on this issue in the days to come keeping in view the provisions of the Electricity Act, 2003.



The Commission will make a reference to the Central Government on this subject seeking its views on the scope and interpretation of Section 13 of the Electricity Act, 2003 read with Section 5. The Commission referred the matter to the Ministry of Power, Government of India vide its letter dated February 20, 2004 and requested the Government to convey its views to the Commission on the matter of "provision of SPD connections to CGHS".

The views of the Government on this issue are still awaited. The Commission has decided to continue with the existing mechanism for this Order, and will take an appropriate view in the matter after the receipt of the Government's response.

#### **5.4.5 Security Deposit**

The Commission would examine this issue separately.

#### **5.4.6 Tariff for Delhi Jal Board**

As regards to creation of separate category for Delhi Jal Board, the Commission is of the view that the introduction of a new category needs an in-depth study with respect to its impact on the revenue stream for which data is not available during the current tariff filing. Thus the same categorisation continues in the current Order.

#### **5.4.7 Concessional Tariff for Senior Citizens**

The Commission is of the opinion 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 being used by senior citizens only.

#### **5.4.8 Definition of Connected Load and Sanctioned Load**

The Commission had first decided on the definition of connected/sanctioned load, after detailed analysis and with the involvement of stakeholders in the public process, in its *Order on Rationalisation of Tariff for Delhi Vidyut Board* dated 16.01.01. During the proceedings on the petition for ARR of DVB for 2001-02, the Commission again sought responses from the stakeholders and the definition of connected/sanctioned load was accordingly modified slightly.

Some of the stakeholders have now suggested taking MDI reading as the connected load for consumers having electronic meters installed.

The Commission feels that for the reasons given by the stakeholders, the definition of connected load does not need a change. As such, the existing definition of connected load shall continue to be applicable.

The Commission has, however, tried to rationalise/restrict the application and use of the definition of connected load by ways such as change of category from SIP to LIP shall be based on MDI reading instead of load. The definition of connected load is therefore required to be used only in cases of assessment of energy.

However, the Commission has modified the definition of Sanctioned Load as follows:

*"Sanctioned Load shall mean the load in kW/HP (kilowatt/Horse Power) for which the licensee has agreed to supply from time to time subject to the governing terms and conditions."*

#### **5.4.9 Billing for unauthorized usage:**

The Commission has modified the provisions of the use of electrical load for category of use other than sanctioned in line with the provisions of the Section 126 of the Electricity Act 2003. The inspection of any place or premises for assessing the unauthorized usage shall be done in accordance with the provisions of the Section 126 of the Electricity Act 2003. The modified provisions for billing for use of electrical load for category of use other than sanctioned category shall be as follows:

- i) Use of electrical load for category of use other than that for which it was sanctioned shall be considered as violation of the provisions of Schedule, e.g.:*
  - a) Domestic connections used for non-domestic or industrial purposes*
  - b) Non-domestic connection used for industrial purposes.*
  - c) Agriculture connection used for domestic, non-domestic, industrial or farmhouse, etc.*
  - d) Industrial connection used for non-domestic purposes*
- ii) In the above case, total consumption shall be treated as consumption under category of use and the consumer shall be billed at a rate equivalent to one-and-half times the tariff applicable for the relevant category of use.*
- iii) The application of Tariff category mentioned above would have retrospective effect for the past three (3) months for Domestic and Agricultural categories and for past (6) months for all other categories reckoned back from the date of detection unless evidence to the contrary is produced by the consumer.*
- iv) Licensee shall change the category in his records as per actual usage and issue notice to the consumer for completion of commercial formalities such as additional security deposit.*
- iv) Application of such Tariff shall be continued in the subsequent bills. However, where consumer pays the requisite Inspection Fee with a request for change of such tariff to that*

*of use of the connection as per the sanctioned category, to the satisfaction of the licensee, the category of tariff shall suitably be changed after verification, from the date of consumer's request.*

#### **5.4.10 Fixed charges for Domestic category**

The Commission had explained the importance of two-part Tariff and the reasons for introduction of Fixed Charges for domestic category in the previous Order. While doing so, the Commission abolished the Minimum Charges, as it may lead to under-recovery of Fixed Charge, in cases where the consumption exceeds certain minimum levels, as only energy charges will be levied in such cases. The rationale for levying Fixed Charges is to recover 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. In view of the objections/suggestions received in this regard, the Commission has again explored the various options for levying Fixed Charges for domestic consumers. 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. 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.

The Commission is of the opinion that the best method of levying Fixed Charges for domestic consumers 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 to Domestic Consumers, the Commission has modified the methodology for levy of Fixed Charges. The Commission has introduced a slab system based on sanctioned load for levy of Fixed Charges. The Fixed Charges will be on per month basis based on the sanctioned load as per the following slabs:

Slab 1 : 0-2 kW

Slab 2: 2-5 kW

Slab 3 : Above 5 kW

#### **5.4.11 Railway Tariff**

Northern Railways has requested the Commission to fix a reasonable tariff for the Railways. It has been stated that considering the fact that Railways are a Public Utility as well as being bulk consumers, the tariff applicable to Railways should reflect the cost of supply without any cross subsidy.

The Commission is of the opinion that there should be separate category for Railway Traction. In line with the same practices prevailing in most of the other States. The Commission has formed a separate category comprising Railway Traction.

#### **5.4.12 Time of Day Tariff**

In the previous Orders, the Commission has favoured the introduction of Time of Day (ToD) tariff. Several objectors have also supported introduction of ToD tariffs. NDPL has stated that the introduction of ToD tariff would help in distributing the consumer's load requirement and enable optimum utilisation of the infrastructure/network, which would result in lower expenses and hence, tariff applicable to consumers. NDPL has further submitted that several States have introduced ToD tariffs successfully.

However, some stakeholders have objected to the introduction of ToD tariff fearing that it will add to the complexities in the system. As maintained in the previous Order issued in June 2003, the Commission is of the opinion that introduction of ToD Tariff is essential to flatten the load curve, as it will encourage off-peak hour consumption. The Commission is of the view that there is no reason to believe that the implementation of ToD Tariffs would lead to harassment and the billing would become more complex. To begin with, the Commission is of the view that ToD tariffs can be introduced for the LIP and MLHT categories, where ToD meters have already been installed. The DISCOMs have submitted a Base Paper in compliance with the directions of the Commission, in this regard. However, before introducing the TOD tariff, the Commission would like to critically examine the following aspects:

Practical problems in implementing TOD tariffs

Consumption Pattern

Benefit to the system in terms of flattening of load curve

Assessment of Revenue Impact and Billing Impact

The time slots of hours for which differential tariff is to be given

Tariff differential for these slots

As the detailed analysis is required to be carried out on above aspects, which also requires additional data from the licensees, the Commission has decided to take up this matter separately after the issuance of this Order.

#### **5.4.13 Voltage Linked Tariff**

The BRPL and BYPL have submitted the Base Paper in compliance with the directions issued by the Commission in the Order dated 26 June, 2003, on voltage-linked tariff. The Commission is of the view that introduction of voltage-linked tariff involves many practical problems and various aspects have to be looked into before introduction of the same. For instance, before introduction of voltage linked tariffs, the cost of supply at each voltage of supply would have to be determined, which requires a detailed analysis of cost of assets and loss levels at different voltages.

Hence, the Commission has decided to examine this matter separately after the issuance of this Order.

#### **5.4.14 Late Payment Surcharge**

Many stakeholders have contested the high rates of late payment surcharge (LPSC) being levied, particularly when interest rates have drastically come down and are expected to go down further in future. Many objectors have requested for reduction in the late payment surcharge from 1.5% per month to 1.0% of the energy bills. Some of the objectors have stated that the late payment surcharge should be charged on the amount outstanding after adjustment of the security deposit made by the consumers.

The Commission is of the view that the payments of dues for electricity already consumed by the consumer must be prompt and within the due date. The Commission is of the view that the purpose of late payment surcharge is to act as a deterrent to consumers who delay payment of their bills. Hence, the Commission has decided to retain the Late Payment Surcharge at the existing rate of 1.5% per month. The Commission would like to add that the revenue collected on account of this surcharge is reflected as part of Non Tariff Income in the ARR and hence the DISCOMs does not gain additional revenue from Late Payment Surcharge.

#### **5.4.15 Clubbing of Connections**

Several SIP consumers have raised the issue of clubbing of load and considering them as one LIP consumer, which has a higher tariff.

The Commission is of the opinion that if separate connections have been taken in distinct portions of a building under different entities, then the load should not be clubbed together for classification under SIP or LIP, unless it can be proved that the connections for one portion is used to supply other portion(s) or the connections are used in a unified premises.



## 6. Revenue Gap and Tariff Design

### 6.1 Introduction

Subsequent to the unbundling of Delhi Vidyut Board into six successor entities through the Transfer Scheme, issuance of Policy Directions by the Government and the privatisation of the distribution business of erstwhile DVB effective from July 1, 2002, the process for determination of tariff for the Companies and its approval by the Commission differs somewhat from the conventional methodology being followed prior to restructuring and privatisation in Delhi and methodology followed in other States. Conventionally, a utility files its ARR and the tariff proposal based on the revenue gap/surplus between the proposed Annual Revenue Requirement (ARR) for a period and the projected revenues at existing tariff of the utility for the period. The tariffs are proposed by the utility so as to bridge the projected revenue gap at existing tariffs and so that the Revenue Requirement is recovered from the various categories of consumers.

The present framework including the Policy Directions require, *inter-alia*, that the retail tariff for the three distribution licensees shall be identical till the end of FY 2006-07, i.e., consumers of a particular category shall pay the same retail tariff irrespective of their geographical locations. The DISCOMs have relied on the above framework to submit only their respective ARR proposals, leaving the tariff determination to the Commission. As discussed in the Chapter 4 on Tariff Philosophy, the privatisation package envisages turnaround of the distribution business well within five years, based upon certain assumptions in terms of AT&C loss reduction trajectory, tariff increases, investments etc. and a Government support of approximately Rs. 3450 Crore to TRANSCO (to bridge the revenue gap between its revenue requirement and the bulk supply price which it may receive from the distribution licensee based on their paying capacity).

As discussed in earlier Chapters, the total sector revenue gap for FY 2004-05 as estimated by the Commission after considering the Government support of Rs. 690 Crore, works out to Rs. 1,072 Crore and the Commission has explored various options such as tariff increase and creation of Regulatory Asset for bridging the sector revenue gap.

As regard to the extent of tariff increase for bridging the revenue gap, the summary of Commission's views as deliberated in Chapter 4 on Tariff Philosophy are as follows:

The Commission at the time of BST Order was not aware of the key assumptions made towards estimating the Government Support. The Commission in the BST Order dated February 22, 2002 with regard to quantum of Government Support has mentioned that "the Commission is *not aware of the assumptions made by the Government to arrive at Rs. 2600 Crore in terms of loss reduction trajectory envisaged and the level of tariff increases. However, the accumulated revenue gap for TRANSCO could be higher or lower than the amount estimated by the Government depending*

*upon the level and structure of future retail tariffs and the committed loss reductions. At this point, the Commission opines that any shortfall in the revenue gap, if any, of TRANSCO during the term of five years over and above Rs. 2600 crore would have to be bridged in the form of Government support, sector efficiency improvements, any other suitable mechanism or a combination of all of the above, to be decided by the Commission at the appropriate stage."*

Subsequently, the GNCTD provided the copy of Financial Restructuring Plan prepared at the time of privatisation. In the Financial Restructuring Plan the average tariff increase projected was 10% per annum for FY 2002-03, FY 2003-04 and FY 2004-05 respectively. The Commission would like to highlight that the tariff increase projected in the Financial Restructuring Plan and the estimated Government Support were based on broad assumptions and the Commission while determining the ARR on year to year basis has to consider the actual revenue and expenses, operational parameters and loss reduction of the previous and current year and estimate of the ARR parameters based on the recent trends for the ensuing year. Based on the estimation of ARR for the Transmission Company and Distribution Companies for FY 2002-03 and FY 2003-04, the Commission estimated the Sector Revenue Gap of Rs. 87 Crore and increased the tariff by around 5% to meet the revenue gap and to compensate for the loss in revenue due to the rationalisation measures undertaken.

The estimated revenue gap in FY 2004-05, after accounting for GNCTD support is Rs. 1,072 Crore. The tariff increase required to meet the entire gap would be around 30%, which is very high and would result in a severe tariff shock to the consumers. Therefore, the Commission has decided that it is not prudent to increase the tariffs beyond a certain reasonable level. Further, the Commission is of the opinion that the matter of increase in tariff cannot be considered in isolation and the increase in tariff has to be in tandem with the improvement in quality and reliability of supply and the improvements in the system. The situation in Delhi Power System has not improved substantially and the consumers of Delhi are still facing the problems of power cuts and interruptions particularly during peak summer and peak winter. Two out of three DISCOMs viz. BRPL and BYPL have not improved the system substantially and the actual capital investments on various distribution schemes have been much lower than the capital expenditure plan approved by the Commission. Apart from quality of supply, the consumers are also facing enormous metering and billing problems.

The Commission is of the view that at this stage when the quality of supply has not improved substantially and the consumers are facing enormous metering and billing problems, it will not be fair to substantially increase the tariffs. At the same time, in order to sustain the Sector and in the larger interest of consumer, it is inevitable to avoid tariff increase. Considering all the aspects discussed above, the Commission has decided to peg the average tariff increase to 10%, which was the increase envisaged for FY 2004-05 in the Financial Restructuring Plan. Considering an average tariff hike of 10%, the revenue gap to be bridged from the tariff increase approved by the Commission works out to Rs. 376 Crore out of the total revenue gap of Rs. 1,072 Crore. The balance



revenue gap of Rs. 696 Crore has been proposed to be treated as a Regulatory Asset to be amortised in future years through a combination of various measures as deliberated in detail in Chapter 4. The approved retail tariffs, as discussed in this Chapter, have been computed so as to recover Rs. 376 Crore of gap from various categories. The Commission expects that with the capital expenditure and R&M works approved, prevalent energy auditing measures, improvement in metering, billing & collection procedures proposed by the Petitioner, the actual achievement in AT&C loss reduction by the Companies shall be far higher than the bid levels, easing the upward pressure on retail tariffs in future. Other efficiency measures undertaken by the Companies such as implementation of Voluntary Retirement Scheme may also show benefits in terms of lower revenue requirement in a longer term. The Commission, therefore, is of the view that with this approach, the interests of all the consumer categories have been taken care of.

## **6.2 Inputs for Tariff Design**

Following are the major inputs having bearing on tariff designing and the same are briefly discussed:

Cost of service

Cross-subsidisation in tariff structure

Consumer-mix and demand forecast

AT&C losses

### **6.2.1 Cost of service**

In assigning the revenue requirement, a suitable allocation of revenue requirement is made to various sectors of services, viz. generation cost, transmission cost and the distribution cost. The relative burden of constituent consumer categories is assessed and on the basis of 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 as briefly explained above, it calls for a detailed database of allocated costs. Such allocations in the determination of embedded cost is done on the basis of following factors:

Voltage of supply;

Power factor;

Load factor;

Time of use of electricity;

Quantity of electricity consumed, etc.

To facilitate the determination of embedded costs, the Commission had directed the Companies to compile data in prescribed formats. However, the Companies have not been able to furnish the requisite information. The Commission, therefore, has decided to continue with the average cost of service as a guiding principle for FY 2004-05.

### **6.2.2 Cross-subsidisation in tariff structure**

The Act provides for reduction of cross subsidies by moving the category wise tariffs towards cost of supply, and the Commission also recognises the need for elimination of cross subsidisation. 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. It must be noted that substantial burden is being borne by the Government during the transition phase from FY 2002-03 to FY 2004-05.

The Commission would also like to highlight that the category of consumers worst hit are the domestic consumers with respect to quality of supply. This is the category most affected by the improper distribution network as it receives power at 400 volts and there are complaints that the power cuts are more frequently imposed on domestic consumers and interruptions in power supply to domestic consumers are much higher as compared to other categories. Further, the instances of metering and billing problems are also substantially higher in domestic category as compared to other categories. However, the domestic consumers are historically paying subsidised tariffs and any major shift to remove the cross subsidies at this stage when the quality of supply to domestic consumers has not improved and consumers are facing metering and billing problems, will hit the domestic consumers. Considering these aspects, the Commission has pegged the tariff increase of domestic category to the average tariff increase of 10%. The Commission will attempt to reduce the cross subsidy by moving domestic tariffs towards cost of supply once the efficient operating levels are reached, quality of supply has improved and metering and billing problems are minimised.

### **6.2.3 Consumer-mix and demand forecast**

#### **6.2.3.1 Petitioner's submission**

For FY 2003-04, the Petitioner, in its Petition, had estimated the category wise sales considering the actual sales during the 6-month period from April 2003 to September 2003 and estimating the sales for balance 6 months in line with the past trends.

For FY 2004-05, the Petitioner has considered growth rates of 18.1%, 5.4%, 3.8%, -22% and 2.5% for domestic, non-domestic, industrial, agriculture and bulk supply categories, respectively. The Petitioner has submitted that the load growth in the Petitioner's License Area is expected to come largely in the Domestic and Commercial categories with the major portion attributable to the Domestic category. The Petitioner has further highlighted that the growth in sales to Domestic category to the tune of 18.1% is expected due to achievement of loss reduction by addition of consumers to the billing fold, electrification of the unauthorised colonies and JJ clusters and growth in new consumer base as a result of, improvement in living standards and improvement in system reliability due to reduction in breakdowns, etc.

### 6.2.3.2 Commission's Analysis

The Commission obtained the details of actual category-wise sales for FY 2003-04 and has considered the same for determining the revenues from sales for this period.

For FY 2004-05, the Commission has forecast the category-wise demand for consumers of all the DISCOMs considering past trend of growth rates and the actual sales during FY 2003-04. This has been done by considering year-on-year variations in category-wise sales, and the compounded annual growth rate (CAGR) of sales to various consumer categories. This total demand forecast for all the DISCOMs has then been allocated to each DISCOM in proportion to its share in the total actual sales for each category in FY 2003-04.

A summary of the sales submitted by the Petitioner and that considered by the Commission is given in Table 6.1.

**Table:6.1 Summary of category-wise sales (in MU) for FY 2003-04 and FY 2004-05**

Category	FY 2003-04				FY 2004-05	
	Order	Petition	Actual	Commission	Petition	Commission
Domestic	1567	1316	1543	1543	1553	1682
Non-Domestic	639	631	565	565	658	647
Industrial	536	363	262	262	376	306
Public Lighting	37	31	32	32	32	33
Agriculture	1	2	1	1	1	1
Railway Traction	0	0	0	0	0	0
Others		63	74	74	0	56
<b>Total</b>	<b>2781</b>	<b>2407</b>	<b>2477</b>	<b>2477</b>	<b>2621</b>	<b>2726</b>

### 6.2.4 AT&C Losses

The concept of AT&C loss and its implications on determination of tariff, treatment of over achievement and under achievement has been discussed in detail in Chapter 4 on Tariff Philosophy.

#### 6.2.4.1 Petitioner's submission

In its Petition, the Petitioner has considered the AT&C loss at the committed level of 54.7% and 50.7% for FY 2003-04 and FY 2004-05 respectively.

During the Technical Sessions, the Commission has directed the Petitioner to submit actual AT&C loss for FY 2003-04. In the subsequent submissions, the Petitioner has submitted that it has over achieved the AT&C loss target and the actual AT&C loss for FY 2003-04 is 54.29%. The Petitioner has also furnished the reconciliation of AT&C loss calculation with the financial accounts for FY 2003-04.

#### 6.2.4.2 Commission's Analysis

The Commission obtained the details of actual AT&C loss for FY 2003-04, which stood at 54.29% and was lower than the committed level of 54.70%. The treatment of over achievement/under achievement of AT&C loss target has been dealt in the Chapter 4 on Tariff Philosophy. In line with

the Policy Directions and the clarification issued by the GNCTD on treatment of over achievement and under achievement of AT&C loss reduction as compared to bid level, the Commission has considered the actual AT&C loss of 54.29% for FY 2003-04 and allowed the Petitioner the recoupment of loss of Rs. 7.87 Crore on account of under achievement of AT&C loss target for FY 2002-03.

The Commission has considered the committed AT&C loss of 50.7% for FY 2004-05. Summary of the Petitioner's submission and approval by the Commission is given in Table 6.3 .

**Table 6.3 AT&C loss for FY 2003-04 and FY 2004-05**

Description	FY 2003-04				FY 2004-05	
	Order	Petition	Actual	Commission	Petition	Commission
Energy Input (MU)	5280	5102	5192	5192	5102	5307
Units Billed (MU)	2782	2408	2477	2477	2620	2726
Units Realised (MU)	2392	2311	2373	2373	2515	2616
AT&C Loss (MU)	2888	2791	2819	2819	2587	2691
AT&C Loss (%)	54.70%	54.70%	54.29%	54.29%	50.70%	50.70%

### 6.3 Revenue gap at existing tariff

#### 6.3.1 Revenue from existing tariff

Revenue from existing tariff 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 tariff increase, support from the Government, creation of a Regulatory Asset, etc. The Commission has obtained the details of actual revenues, billed and collected, during FY 2003-04.

For FY 2004-05, the Commission has computed the revenue at the existing tariff from the estimated sales figures and from other charges such as load violation charges, etc., which have been related to the actual revenue available from these charges for FY 2003-04. The revenue from maintenance of streetlights has been considered as part of revenue from existing tariff.

The revenues estimated by the Petitioner and those considered by the Commission are given in Table 6.4.

**Table:6.4 Revenues collected (Rs. Crores)**

Particulars	FY 2003-04			FY 2004-05	
	Petition	Actual	Commission	Petition	Commission
Revenue Collection	841	835	827	915	898

#### 6.3.2 Power Purchase Cost of the Petitioner at existing BST

Table 6.5 provides the Power Purchase cost as proposed by the Petitioner and as considered by the Commission at the existing Bulk Supply Tariff.



**Table:6.5 Power purchase cost at existing BST**

Description	FY 2003-04			FY 2004-05	
	Petition	Actual	Commission	Petition	Commission
Energy Input (MU)	5102	5192	5192	5102	5307
Power Purchase Cost* at existing BST (Rs. Crore)	652	663	663	643	668

\*At 132.09 paise/unit for the period Apr-Jun 2003 and at 125.94 paise/unit thereafter.

### 6.3.3 Revenue gap of the petitioner

The revenue gap at existing retail supply tariffs and existing bulk supply tariff has been computed as given in Table 6.6.

The Revenue Gap for FY 2003-04 and FY 2004-05 has been estimated by the Commission as Rs. 48 Crore and Rs. 20 Crore, respectively.

**Table:6.6 Revenue gap at existing tariffs (Rs. Crore)**

Description	FY 2003-04		FY 2004-05	
	Petition	Commission	Petition	Commission
Expenses (A)*	269	205	432	239
Return (B)*	25	22	79	26
Non-Tariff Income (C)*	3	14	4	15
Revenue Requirement (A+B-C) excl. Power Purchase Cost	291	212	507	250
Revenue realised at existing Tariffs	841	827	915	898
Power Purchase cost at existing BST	652	663	643	668
<b>Revenue Gap</b>	102	48	235	20

\*Refer Table 3.20

### 6.3.4 Contribution of additional revenues by revision of retail tariff

The Commission has determined the retail tariff keeping in view the overall sector revenue gap.

## 6.4 Previous revision of Tariff

The previous revision of retail supply tariff took place in 2003, when the Commission issued the Tariff Order for BYPL on June 26, 2003 and the revised tariff was made applicable from July 4, 2003. .

## 6.5 Tariff Design

As discussed in the earlier sections, the total consolidated net revenue gap of all the Utilities (TRANSCO and DISCOMs) after factoring in the Government support of Rs. 690 Crore during FY 2004-05 works out to Rs. 1072 Crore. If the entire net revenue gap is to be bridged by increase in

tariffs, the average tariff increase required would be to the extent of 30%. As deliberated in earlier sections, the Commission has decided to peg the average tariff increase to 10%. The balance revenue gap at the sector level has been treated as a Regulatory Asset to be amortised through a combination of several measures, such as efficiency gains, tariff increase in future year, and other factors which the Commission may feel appropriate while amortising the Regulatory Asset. The Commission has apportioned the Regulatory Asset amongst TRANSCO and DISCOMs based on the methodology explained in the Chapter 4 on Tariff Philosophy. The Bulk Supply Tariff has been revised considering revenue from revised tariff and creation of Regulatory Asset for BYPL.

While modifying the existing retail tariff, the Commission has considered the average tariff increase of 10% and the billing impact on the consumers.

## **6.6 Domestic Tariff**

### **6.6.1 Consumer profile**

Domestic tariff is applicable for the lighting/fan and power consumption of residential consumers, hostels of recognised/aided educational institutions and staircase lighting in residential flats, compound lighting, Government Hospitals 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. Domestic consumers account for approximately 57% of the total billed units and contribute around 40% of the total revenue.

The Commission has designed the tariff structure for domestic consumers keeping in view the following factors:

### **6.6.2 Limiting the Tariff Shock**

The Commission would like to highlight that every consumer is a domestic consumer first (he gets up as a domestic consumer and goes to bed as a domestic consumer) and then falls into any other category i.e. non domestic, industrial, etc and hence this is very important consumer category whose concerns need to be addressed in appropriate manner.

As already mentioned the Commission would also like to highlight that the domestic consumers are the worst hit consumers with respect to quality of supply. This is the category most affected by the improper distribution network as it receives power at 400 volts and the power cuts are more frequently imposed on domestic consumers and interruptions in power supply to domestic consumers are much higher as compared to other categories. Further, the instances of metering and billing problems are also substantially higher in domestic category as compared to other categories. Therefore, at this stage when the quality of supply to domestic consumers has not improved and consumers are facing enormous metering and billing problems, the increase in tariff more than the average tariff increase will hit the domestic consumers. Considering these aspects,

the Commission has pegged the tariff increase of domestic category to the average tariff increase of 10%.

### **6.6.3 Two part tariff**

The Commission in its last 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 suggestions made by various stakeholders on this issue and the Commission's views on this issue have been elaborated in the Chapter 5 on Tariff Rationalisation.

The Commission has explored the following options for levy of fixed charges to domestic consumers:

Per connection per month

Per kW of Sanctioned Load per month (Existing Mechanism)

Fixed Charges linked to consumption

Slab system based on sanctioned load

After analysis of the various options and considering the views expressed by the stakeholders and in continuation of the effort to rationalise the tariff structure, the Commission has modified the methodology for levy of fixed charges. The Commission introduces a slab system based on sanctioned load for levy of fixed charges. At this stage, as the information related to the number of consumers in each slab of sanctioned load is not available, the Commission is not in a position to assess the revenue impact of this mechanism. For the purpose of estimating revenue at proposed tariff, the Commission has estimated revenue as per the existing mechanism of Rs. 10/kW/month. Any over/under recovery in revenue on this account will be duly considered in the truing up process.

### **6.6.4 Reduction in the number of consumption slabs**

The Commission has received suggestions as regards reduction/modification in the number of consumption slabs in the domestic category during last year's tariff process as well as the current process. The Commission, in its last Tariff Order issued on June 26, 2003, had expressed the need to reduce the number of slabs by merging slabs. However, the Commission was of the view that the slabs have to be created such that the billing impact is minimised. The Commission had directed the Petitioner to *"maintain consumption data for the domestic category in blocks of 50 units, i.e. 0-50 units, 51-100 units, 101-150 units, etc. and submit it to the Commission alongwith the next ARR and Tariff Petition to enable the Commission to re-design slabs depending on the consumption pattern"*.



The DISCOMs in their ARR and Tariff Petitions for FY 2004-05 have submitted the consumption data in blocks of 50 units. During the technical validation sessions, the Commission obtained the consumption data for the full financial year 2003-04. Based on analysis of consumption data in blocks of 50 units, the Commission is of the opinion that a complete restructuring of existing slabs will lead to substantial tariff shock to consumers having average consumption within lower slab and on the other hand will prove to be beneficial for the consumers having average consumption in the higher slabs. The average consumption of domestic consumers is around 200 units per month. In the existing slab system, most of the consumers are paying tariffs for first two slabs depending upon the consumption. Thus, merging of first two slabs will not lead to substantial increase for most of the consumers. Therefore, the Commission has merged the first two slabs and created a single slab for consumption from 0-200 units. Thus, the three slabs applicable for domestic category will be as follows:

Consumption between 0-200 units per month

Consumption between 201-400 units per month

Consumption above 401 units per month

#### **6.6.5 J J Clusters**

The Commission has separately dealt with the tariff for J J 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 has approved the tariff for J J Clusters and has 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 has decided not to increase the tariff and has 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.

#### **6.6.6 Domestic lighting/fan & power on 11 kV single delivery point for CGHS and other similar Group Housing Complexes**

The Commission has considered an average consumption level of 450 units per month in line with the philosophy adopted earlier. The Commission finds that the above formulation arrives at a multiplication factor of 3.034 [i.e.  $(44.41 \times 2.20 + 44.41 \times 3.60 + 11.2 \times 4.10)/100$ ], which is in fact the weighted average tariff under different slabs for 450 units of consumption as per the revised slabs and tariff. The Commission, therefore, is of the view that such a complex calculation methodology for billing is not necessary and a much simpler course of action would be to resort to billing by multiplying the total energy consumption with the single per unit charge of Rs. 3.034/kWh. A rebate of 15% shall be available on the energy charges, as the sub-distribution expenses including capital investment, metering, billing and collection are to the account of the CGHS. Thus the effective per

unit charge applicable for CGHS consumers works out to Rs. 2.58/kWh. The fixed charges as applicable to Domestic Light, Fan and Power consumers will be applicable to CGHS consumers also.

#### 6.6.7 Domestic Lighting/Fan and power connections in unelectrified left out Pockets and Villages

The Commission in its last tariff Order dated June 26, 2003 had directed the Petitioner to install the meters for all the connections in the electrified areas. The Petitioner has confirmed that all connections in electrified areas have been metered. In such case, the tariff on the basis of plot size is applicable only to Domestic connections in unelectrified left out pockets and villages. The Commission has assigned energy consumption levels to different categories. Accordingly, it has been presumed that the consumption level of consumers occupying plots of size 0-50, 51-100, 101-150, and 151-200 square yards would be 100, 150, 200 and 250 units respectively. The lump sum rates payable in each month have been determined by applying the domestic category rates to these consumption levels.

Although the Commission has approved new rates of tariff for this category, Commission expects that the meters will be installed on connections in unelectrified left out pockets and villages once these areas are electrified under the proposed Capital Expenditure Plan. When all such consumers have been metered, this category would be abolished.

#### 6.6.8 Approved Tariff

The existing tariff and the approved tariff for domestic category are indicated in Table 6.7.

**Table:6.7 Existing and Proposed Tariffs for Domestic Category**

Sub-category	Existing Tariff			Approved Tariff			
Sub-category	Fixed Charges (Rs./kW/month)	Units/month	Energy Charges (p/u)	Load (kW)	Fixed Charges (Rs./month)	Units/month	Energy Charges (p/u)
JJ Cluster			Rs./month Rs. 175				Rs./month Rs. 175
Domestic Lighting/Fan and Power (Single Delivery Point and Separate Delivery Points/Meters)	10	0-100 101-200 201-400 Above 400	175 235 325 385	Up to 2 2-5 Above 5	20 50 10/kW	0-200 201-400 Above 400	220 360 410
Domestic Lighting /Fan and Power on 11 kV single delivery point for CGHS and other similar group housing complexes	10	First 22.2% Next 22.2% Next 44.4% Next 11.2%	175 235 325 385		10/kW/month	For entire consumption	257.8 (303.3 with 15% rebate)
Domestic Lighting/Fan and Power Connections in Unelectrified Left Out Pockets and	-	-	Rs./month		-	-	Rs./Month

Sub-category	Existing Tariff			Approved Tariff			
Sub-category	Fixed Charges (Rs./kW/month)	Units/month	Energy Charges (p/u)	Load (kW)	Fixed Charges (Rs./month)	Units/month	Energy Charges (p/u)
Plot sizes: i) up to 50 Sq. yds. ii) between 51-100 Sq. yds. iii) between 101-150 Sq. yds. iv) between 151-200 Sq. yds. v) more than 200 Sq. yds. only through installation of meters by Licensee			Rs. 175 Rs. 295 Rs. 410 Rs. 575 Same as 1.2				Rs. 240 Rs. 350 Rs. 460 Rs. 640 Same as 1.2

The Commission has protected the interests of economically weaker sections by not increasing the tariff of JJ clusters. The tariffs for domestic category have been increased in such a manner that at the average domestic consumption of 200 units per month, the impact of increase in billing is only 7.5%. The overall increase in billing impact for domestic category has been contained within 10%. Further, the Commission has attempted to reduce the intra class cross subsidy within the domestic tariff.

## 6.7 Non-Domestic Tariff

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.

### 6.7.1 Non-Domestic Low Tension (NDLT)

#### 6.7.1.1 Consumer profile

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. This category also includes, but is not limited to, schools/colleges, hospitals, railways (other than traction), hotels & restaurants, cinemas, banks, shops, poultry farms, horticulture, etc. This category consumes approximately 14.13% of the total billed units.

The tariffs for non-domestic consumers have been revised considering the following:

#### 6.7.1.2 Disparity between Three Phase & Single Phase Consumers

In the previous Order, the Commission had noted that there is no rationale for having differential energy charges for single phase and three phase consumers. Therefore, the Commission initiated the process of reducing the difference in tariffs for three-phase and single-phase consumers as elimination of this difference would have had a big impact on the single-phase consumers. In this Order, the Commission has merged these two sub-categories. In order to avoid billing impact to small consumers under this category the Commission has modified the tariff structure based on

load i.e. upto 10 kW and between 10 kW to 100 kW. The tariff for first category with load upto 10 kW has been kept lower than the tariff for second category with load between 10 kW to 100 kW.

The Commission, in its last Tariff Order dated June 26, 2003, directed the Petitioners to replace all meters for consumers with sanctioned load of more than 10 kW with electronic meters by March 31, 2004. The Petitioner has informed that they have changed all CT meters for 15 kW and above consumers. Meters for 10 kW to 15 kW are being changed in a phased manner. **The Commission directs the Petitioner to change/install electronic meters for all the consumers with sanctioned load of more than 10 kW by September 30, 2004. The Commission also directs the Petitioner to submit the Billing Demand and kVAh consumption data to the Commission for these consumers during the next ARR Filing.**

#### **6.7.1.3 Non-domestic connections at 11 kV single delivery point for commercial complexes, etc.**

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.

### **6.7.2 Mixed Load High Tension (MLHT)**

#### **6.7.2.1 Consumer Profile**

This category includes non-domestic consumers having load above 100 kW for lighting, fan, heating/cooling power appliances in domestic/non-domestic establishment, pumping loads of Delhi Jal Board/DDA/MCD, etc. They consume approximately 9.31% of the total billed units.

#### **6.7.2.2 Difference between tariff applicable for MLHT consumers taking supply at 11 kV and those taking supply at 400 V**

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.

For supply at 33/66 kV, consumers will get a rebate of 2.5% on the energy charges for 11 kV supply and a rebate of 4% for supply at 220 kV. The demand charge shall continue at the existing level.

### **6.7.3 Approved Tariff for Non Domestic Category**

The existing tariffs and the revised tariffs for non-domestic category have been presented in the Table 6.8.

**Table:6.8 Existing and Approved Tariffs for Non Domestic Category**

Sub-category	Existing Tariff			Approved Tariff		
	Fixed Charges (Rs./kW/ month)	Demand Charges (Rs./kVA/month)	Energy Charges (p/u)	Fixed Charges (Rs./kW/ month)	Demand Charges (Rs./kVA/ month)	Energy Charges (p/u)
Non-Domestic (Low Tension)-NDLT-I						
a) upto 10 kW	20	-	475	35	-	520
b) between 10 kW to 100 kW	20		515	35		545
Non-Domestic Light/Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II	20	-	500 (with 15% rebate)	35		463
Mixed Load (High Tension)-MLHT			(paise/ kVAh)			(paise/ kVAh)
a) Supply on 11 kV	-	150	425	-	150	470*
b) Supply on LT (400 Volts)		200	500		200	540

**6.8 Industrial Tariff**

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.

**6.8.1 Small Industrial Power (SIP)****6.8.1.1 Consumer profile**

This category consists of industrial consumers with load up to 100 kW including lighting, heating and cooling load. Their consumption is 13.3% of the total billed units.

**6.8.1.2 KVAh based tariff for SIP Consumers**

For SIP 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 the consumers for whom the electronic meters are installed. Till electronic meters are installed the kWh based tariff only shall be applicable.

**6.8.1.3 SIP connections at 11 kV single delivery point for group of SIP consumers**

The SIP group consumers availing supply at 11 kV at single delivery point will have a rebate of 15% on energy consumption charges, as compared to SIP tariffs

**6.8.2 Large Industrial Power (LIP)****6.8.2.1 Consumer profile**

This category includes large industrial consumers having load above 100 KW including lighting load. This category accounts for 3% of the total billed units.

### 6.8.2.2 Difference between tariff applicable for LIP consumers taking supply at 11 kV and those taking supply at 400 V

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.

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.

### 6.8.3 Approved Tariff

The existing and approved charges for industrial consumers have been presented in Table 6.9.

**Table:6.9 Existing and Approved Tariffs for Industrial Category**

Sub-category	Existing Tariff			Approved Tariff		
	Fixed Charges (Rs./kW/ month)	Demand Charges (Rs./kVA/month)	Energy Charges (p/u)	Fixed Charges (Rs./kW/ month)	Demand Charges (Rs./kVA/ month)	Energy Charges (p/u)
Small Industrial Power – SIP	20	-	445	35	-	485 paise/kWh or 424 * paise/kVAh
Industrial Power (SIP) on 11 kV Single Delivery Point for Group of SIP Consumers	20	-	445 (with 15% rebate)	35		412 paise/kWh or 350* paise/kVAh
Large Industrial Power LIP a) Supply on 11 kV b) Supply on LT (400 Volts)	-	150 200	(paise/ kVAh) 375 450	-	150 200	(paise/ kVAh) 410 480

\* where kVAh meters have been provided

## 6.9 Agriculture and Mushroom Cultivation Tariff

### 6.9.1 Consumer profile

Agriculture connections are available for tube wells for irrigation, threshers and kutties 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 0.5% of the total billed units.

### 6.9.2 Approved Tariff

The Commission has not increased the fixed charges for this category and the energy charges have been increased in such a manner that the overall tariff increase is around 10%. The existing and approved charges for agriculture consumers and mushroom cultivation consumers have been presented in Table 6.10

**Table:6.10 Agriculture and Mushroom Cultivation Tariff**

	Existing Tariff		Approved Tariff	
	Fixed Charges (Rs./kW/ month)	Energy Charges (p/u)	Fixed Charges (Rs./kW/ month)	Energy Charges (p/u)
Agriculture	10	110	10	125
Mushroom Cultivation	20	250	20	275

### 6.10 Public Lighting

#### 6.10.1 Public Lighting

##### 6.10.1.1 Consumer profile

Tariff for this category is applicable to all street lighting consumers including MCD, DDA, PWD/CPWD, Slums, DSIDC and certain civilian pockets of MES. The share of MCD, however is dominating as 97% of all street lights in the city are owned by the MCD. Public Lighting consumption is about 1.08% of the total billed units.

#### 6.10.2 Approved Tariff

The Commission in its previous Tariff Orders has set the tariff for public lighting equivalent to energy charge of the highest slab in the domestic category and the same was fixed at 385 paise/unit in its Order issued on June 26, 2003. In regard to the maintenance charges, since no consensus could be reached with respect to scope of work amongst the DISCOMs and MCD, the earlier maintenance charge at Rs. 60/point/month was continued. The issue was deliberated in detail and the Commission eventually issued an Order on 16.3.2004. The Order aimed at triggering performance through a system of incentive/disincentive, which has been built in based on the performance on the ground. The Commission has determined that the maintenance charge would be Rs. 73.00 per point per month. The maintenance charge would include replacement of incandescent bulbs of 40 to 100 watts and other general conditions as specified in the Order of the Commission issued on 26.6.2003 would apply. The energy charge was to be calculated on the basis of actual performance and was fixed at Rs. 3.85 per unit as indicated in the Tariff Order issued on 26.6.2003. The operating portion of the Order is reproduced below :

- "In order to make an assessment of the number of points which are functioning, the MCD and the DISCOM concerned may have a joint inspection which could be carried out once in a month. The inspection would be done on a sample basis and the size of a sample would be two zones, which would be picked up randomly. The zones selected would be from different circles. Light points found defective in one inspection shall be inspected again during the next inspection alongwith the fresh zones which would be monitored. No zone shall be monitored twice consecutively.
- The MCD and the DISCOMS may also involve a third party for the inspections. The choice of the third party would be mutually decided between the MCD and the DISCOMS.
- The dates for inspection would be fixed well in advance and the inspection should be completed by the third week of the month concerned.
- The Commission would like to evolve a system whereby good performance is rewarded. Similarly, poor performance also needs to be discouraged and therefore, the Commission directs that full maintenance charges may be paid for 90% performance. Performance higher than 90% shall earn an incentive for the DISCOMS according to the following table 6.10A:

• **Table 6.10A: Incentive for maintenance of street lighting**

Performance level achieved	Incentive	Example
Between 90-95%	1% for each percentage in over achievement from target of 90%	Actual Performance 93% Incentive 93-90 = 3%
Between 95-97%	1.5% for each percentage in over achievement from target of 95%	Actual Performance 97% Incentive = 5 + 3 = 8%
Above 97%	2.0% for each percentage in over achievement from target of 97%	Actual Performance 99% Incentive = 8 + 4 = 12%

Performance less than 90% shall attract disincentive for the DISCOMS according to the following table 6.10B

• **Table 6.10B: Disincentive for maintenance of street lighting**

Performance level achieved	Disincentive	Example
Between 80-90%	1% for each percentage in shortfall to achieve target of 90%	Actual Performance 83% Disincentive 90-83 = 7%
Between 70-80%	1.5% for each percentage in shortfall to achieve target of 80%	Actual Performance 77% Disincentive = 10+4.5 = 14.5%
Below 70%	2% for each percentage in shortfall to achieve target of 70%	Actual Performance 60% Disincentive = 25 + 20 = 45%

- The incentive or disincentive would not be a pass through in the calculation of the Annual Revenue Requirement and the payment would be made by the 15th day of the following month.
- The maintenance charge will be Rs. 73 per point per month. The maintenance charge has been arrived at on the basis of the technical discussions held in the Commission on 1.11.2003. Maintenance charges would include replacement of incandescent bulbs of 40 to 100 Watts and other general conditions, as specified in the Order of the Commission issued on 26.06.2003, would apply.
- Energy charges would be calculated on the basis of actual performance. The tariff fixed for energy charge is Rs. 3.85 per unit as per the Tariff Order issued on 26.06.2003. The quantum of energy



consumed by each point per month would be calculated on normative basis in accordance with the existing practice.

- Energy charge in respect of lamps identified in the previous inspection found to be malfunctioning when inspected in the subsequent inspection, would not be payable by the MCD.
- An allowance of 0.5% of energy consumed per month would be given for testing/ maintenance of streetlights during the day time.
- The rates fixed for maintenance charge and also for energy charge would be with effect from 4.09.2003 till such time the new tariff orders for 2004-05 become applicable.
- For the period beginning from the 4<sup>th</sup> of September 2003 till the end of February 2004, payment of maintenance and energy charge would be determined on the basis of the average figures arrived at in the various joint inspections that have been carried out in the months of December 2003/January 2004. These inspections have been carried out in different zones at different periods of time and in the absence of any other figures for this period, the Commission is of the view that this would be the best approximation.
- The MCD in association with the DISCOMS would set up a committee to ensure transparency in purchase of spares.
- The payment of Electricity Duty would be on the basis of the pattern of consumption for the corresponding month in the previous year. The MCD and the DISCOMS would reconcile the actual consumption figures for each quarter by the 15<sup>th</sup> day of the following month.
- All public lights would be formally handed over to the DISCOMS within 15 days of this Order.
- The rates for public lighting, determined in this Order, would also be valid for public lights belonging to the PWD and the DDA."

Historically, the task of public lighting had been taken over by the DISCOMs as a legacy of the erstwhile DVB. All the three DISCOMs have, of late, been complaining that the maintenance charges, which are being paid by the MCD, are insufficient to meet the actual costs incurred. The DISCOMs, therefore, have expressed unwillingness to carry on this function and have suggested that the MCD may find some other agency to do this job. The MCD on the other hand have maintained that they would like to limit the cost incurred towards public lighting to the proceeds of the electricity tax, which go to the MCD and simultaneously, develop a public lighting system, similar to the Mumbai pattern. There is thus no meeting ground in the stand taken by the DISCOMs and the MCD and consequently, this matter has been languishing for some time. Thus for the year 2004-05, the Commission proposes to continue with the maintenance charges as per the Order issued on 16.3.2004 pending resolution of the issues separately. As regard to energy charges, continuing with the earlier principle, the Commission has approved the tariff for Public Lighting category equivalent to energy charge of the highest slab in the domestic category.

The existing and approved tariffs for public lighting and signals/blinkers are given in Table 6.11.

**Table:6.11 Tariff for Public Lighting**

Sub-category	Existing Tariff		Approved Tariff	
	Maintenance Charges (Rs./light point/month)	Energy Charges (p/u)	Maintenance Charges (Rs./light point/month)	Energy Charges (p/u)
Public Lighting	60	385	73	410

Signals & blinkers	-	385	-	410
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It may be noted that Fixed Charges are not applicable on Public Lighting Category and hence the effective tariff of Public Lighting category is lower than the total tariff of highest slab of domestic category.

## 6.11 Railway Traction

### 6.11.1 Consumer profile

The consumption of Railway Traction is around 1% of the total billed units.

### 6.11.2 Capacity Blockage Charges

The Petitioner is supplying power for Railway traction through one phase while the other two phases remain unutilised/blocked. The levy of capacity blockage charges shall continue in accordance with the mutually agreed formula followed in the past. The capacity blockage charge is applicable to consumers drawing power at 33/66 kV on single phase @ Rs. 25000.00 per month upto contract/maximum demand of 5 MVA. For contract/maximum demand of above 5 MVA, the capacity blockage charge is determined according to the formula: Rs. 1260 x (2.97A+5), where 'A' is the contract demand or maximum demand in MVA, whichever is higher.

### 6.11.3 Separate Category for Railway Traction

In the previous Tariff Order issued by the Commission on June 26, 2003, the Commission has merged the Railway Traction category with LIP Category. However, after going through the Railways' submissions, the Commission is of the opinion that there should be separate category for Railway Traction. Moreover, the same practice is prevailing in most of the other States The Commission has formed a separate category comprising Railway Traction and set the tariffs at levels slightly lower than the LIP Category. Going by the plea of the said consumer, the Commission kept the tariff applicable to the Railways at the existing tariff levels.

### 6.11.4 Approved Tariff

The existing and approved tariffs for Railway Traction are given in Table 6.12.

**Table:6.12 Tariff for Railway Traction**

	Existing Tariff		Approved Tariff	
	Demand Charges (Rs./kVA/month)	Energy Charges (paise/kVAh)	Demand Charges (Rs./kVA/month)	Energy Charges (paise/kVAh)
Railway Traction	150	375	150	375

## **6.12 Delhi Metro Rail Corporation Ltd. (DMRC)**

### **6.12.1 DMRC's submission**

DMRC has submitted that it is engaged in the activity of providing Mass Rapid Transit System for Delhi and is a public utility and social sector project having many social benefits, which would be bestowed upon a section of commuting public, majority of whom belong to the economically weaker sections of society. In connection with the above activities, DMRC requires electricity to run metro trains, for ancillary activities, for operational requirements, for supply to commercial, domestic and other establishments inside the metro stations and for real estate to be developed outside the metro stations.

DMRC has submitted that unlike other consumers, all infrastructure and facilities after the point of interconnection with TRANSCO/DISCOM system are established, maintained and operated by DMRC at its own cost and the TRANSCO/DISCOM does not incur any additional expense for supply to DMRC. As such, the tariff for DMRC should be single part, based on number of units consumed and the two-part tariff has no application to the nature of consumption by DMRC.

DMRC has requested the Commission to consider the following suggestions with respect to tariffs for DMRC:

Maintain the same Tariff for supply at 220 kV as well as 66 kV, as per earlier Order of the Commission  
Determine the Tariff for use of electricity in the proposed IT Park at concessional level as compared to commercial and business establishments

#### **6.12.1.1 Commission's view**

In its previous Tariff Order dated June 26, 2003 the Commission treated DMRC as a separate category of consumers and has determined the tariff for DMRC on the basis of actual cost of supply by TRANSCO to DMRC with a nominal component of overheads of the DISCOM. The Commission has adopted the same methodology for determining the tariff for DMRC for supply at 220 kV.

The Commission in its last Tariff Order has determined the tariff for DMRC for supply at 220 kV based on average cost of supply of TRANSCO. The cost of supply of TRANSCO for supply at 220 kV and 66 KV will be different, however in absence of details regarding fixed cost and loss levels at different voltages, the cost of supply at voltage levels cannot be determined. Therefore, the Commission while setting the tariff for DMRC has considered the average cost of supply of TRANSCO for supply at 220 kV as well as at 66kV. On the estimated the average cost of supply of TRANSCO a nominal component of overheads of the DISCOM have been added to establish tariff for DMRC.

As regards to determination of concessional tariffs for the proposed IT Park, the Commission does not agree with the respondent and is of the opinion that IT Parks being business establishments, the non-domestic tariff should be applicable to IT Parks.

**6.12.2 Tariff for DMRC**

In view of the above, the Commission approves a tariff of 230 paise/kVAh for DMRC for supply at 220 kV and 66kV.

**6.12.3 Tariff for commercial and other establishments being supplied by DMRC**

Tariff for Commercial Establishments shall be NDLT –II tariff as applicable for supply at 11 kV with 15% rebate and if supply is at 66/220 kV, the applicable rebate will be 2.5% /4% on 11 kV rates,

**6.13 Temporary Supply**

The Commission in its previous Tariff Order dated June 26, 2003 had rationalised the tariffs applicable for consumers availing temporary supply. The Commission does not propose any change in the existing tariff mechanism for temporary supply. The demand charges shall be 50% (instead of 100%) of the demand charges applicable to the relevant category in case of temporary connections for a total period less than 16 days. The energy charges for temporary connections shall be 130% of the respective category's tariffs.

**6.14 Treatment of Revenue Gap****6.14.1 Revenue Gap for FY 2003-04 (truing up)**

As given in Table 6.6, the revenue gap of the Petitioner for FY 2003-04 works out to Rs. 45 Crore, which is due to the truing up of actual revenue and expenses with respect to the revenue and expenses estimated in the previous Tariff Order dated June 26, 2003. The revenue gap of the Petitioner for FY 2004-05 works out to Rs. 20 Crore. The total revenue gap for the two years 2003-04 and 2004-05 works out to Rs. 65 Crore.

**6.14.2 Total Revenue from Approved Tariffs for FY 2004-05**

Table 6.13 summarises the revenue billed from the existing and approved tariffs (excluding electricity duty).

**Table :6.13 Revenue Billed from Existing and Approved Tariff excluding Electricity Duty for FY 2004-05**

Category	Revenue from existing tariff	Revenue from Approved Tariff
Domestic	424	470
Non-domestic	344	377
Industrial	151	166
Agriculture	0	0
Railways	0	0
Public Lighting	13	14
Streetlight maintenance	5	7
<b>Total</b>	<b>937</b>	<b>1034</b>

The estimated total revenue realised in FY 2004-05 after considering the collection efficiency from existing and revised tariffs works out to Rs 898 Crore and Rs. 991 Crore, respectively.

The approved tariffs are appended to this Order as the Tariff Schedule for FY 2004-05.

#### **6.14.3 Regulatory Asset**

As discussed in detail in Chapter 4, in order to bridge the overall sector revenue gap of Rs. 1072 Crore, the Commission has proposed to create a regulatory asset of Rs. 696 Crore, out of which the Regulatory Asset to be created for BYPL based on the methodology discussed in Chapter 4 is estimated at Rs. 138 Crore.

#### **6.14.4 Approved Bulk Supply Tariff**

With the approved level of revenues, regulatory asset and considering the ARR excluding power purchase cost and revenue gap for FY 2003-04, the paying capacity of the Petitioner works out to Rs. 830 Crore.

The units purchased by the Petitioner from TRANSCO have been estimated at 5307 MU. The approved BST of the Petitioner thus comes to 156.47 paise/unit.

## 6.15 Power Purchase Costs and Retail Supply Tariffs across States

### 6.15.1 Introduction

Generation and Power Purchase Expenditure is the single largest expense of any Electricity Supply Utility. In Delhi, power purchase cost comprises approximately 95% of the total estimated revenue requirement of Delhi Transco Limited. Power purchase cost is a function of not only generation within the State and power imported from outside the State, but also of the generation and power purchase mix. Hence, in comparing tariffs across States, one needs to appreciate the variance in tariffs on account of the sources from where the power is procured. In the following section, the Commission has compared the tariffs across various neighbouring States and some progressive States like Maharashtra and Andhra Pradesh in the context of their generation mix and the sources of power.

### 6.15.2 Sources of Power

Delhi Transco Limited sources most of its energy requirements from sources outside the State. A comparison of energy available from the sources within the State and the energy purchased from other sources mainly Central Generating Stations (CGS) is presented in the Table 6.14.

**Table 6.14 Energy Input Mix**

Source	Delhi	Punjab	Rajasthan	Uttar Pradesh	Maharashtra	Andhra Pradesh
Own Generation	17%	59%	40%	51%	74%	51%
Power Purchase from other sources	83%	41%	60%	49%	26%	49%

#### 6.15.2.1 Generation within the State

The average cost of energy available from the sources within the State varies across the States and is a function of hydro-thermal mix, vintage of the stations, proximity to the fuel source, etc.

In Delhi, generation from own sources accounts for only about 17% of the total energy requirements. The generation capacity in the State comprises primarily of coal and gas based stations, with no hydro capacity. Most of the generating stations located in Delhi are of old vintage, small size, and consequently have higher Heat Rates. Owing to these factors, the cost of generation of power from these stations is higher in comparison to generation costs of other States. The neighbouring States like Punjab, Rajasthan, etc. not only have substantial hydro generating capacity, but also possess significant shares in the large inter-State hydro complexes.

Punjab meets about 49% of its total power requirement through generation from own sources, out of which around 19% is from hydro generation. In addition, Punjab gets about 10% of its total power purchases from BBMB hydro power stations. Rajasthan meets about 40% of its total power requirement through generation from own sources, of which around 3.5% is from hydro generation. In addition, Rajasthan gets about 14.5% of its total power purchases from hydro stations such as Bhakra, Dehar, Pong and Chambal complex. Uttar Pradesh meets 51% of its total energy requirement through own sources, in which hydro generation accounts for about 4% of the total generation of the State. Maharashtra meets 74% of its demand through its own resources and purchases only 26% of its requirement from central power stations and other sources. Andhra Pradesh meets 51% of the demand from its own sources, in which hydro generation accounts for about 28% of total generation in the state. Due to the above reasons, the average cost of generation from own sources in Delhi is relatively higher as compared to that of neighbouring States and some of the other progressive States.

#### 6.15.2.2 Power Purchase from Central Generating Stations – A Comparison

The average cost of power purchase from the Central Generating Stations varies across the States and is a function of each State's share in various Central Generating Stations. The Table 6.15 provides a snapshot view of the shares of various states in the Central Generating Stations.

**Table 6.15: State share in CGS**

Source	Delhi	Punjab	Rajasthan	Uttar Pradesh
Singrauli	11.25%	10.00%	19.50%	37.68%
Rihand	13.75%	11.00%	14.00%	32.57%
Unchahar-I	6.90%	8.57%	6.19%	59.52%
Unchahar-II	14.94%	14.28%	13.55%	30.69%
Anta	14.26%	11.69%	24.32%	21.75%
Auriya	13.46%	12.52%	12.32%	32.06%
Dadri (G)	12.73%	15.90%	11.41%	29.60%
Dadri (T)	90.00%	0.00%	0.00%	10.00%
NAPP	14.31%	11.59%	14.37%	31.30%
RAPS-B#3	15.00%	0.00%	85.00%	0.00%
RAPS-B#4	35.00%	0.00%	20.00%	0.00%
Bairasiul	11.10%	46.67%	0.00%	0.00%
Salal	11.62%	26.60%	2.95%	6.95%
Tanakpur	12.81%	17.93%	11.53%	22.64%
Chamera	7.90%	10.20%	19.60%	20.27%
Uri	11.04%	13.75%	8.96%	20.06%

As evident from the table, Delhi has the highest allocation in NCTPP Dadri Thermal Power Station. Among other thermal plants, the cost of energy generated by Dadri is the costliest. Most of the sources of power purchase by Delhi are high cost sources, with Delhi purchasing approximately 47% of its energy from NTPC. Delhi also purchases energy from BTPS (around 25% of the energy requirement of Delhi), which being an old load centre power station has high fuel costs.

In addition to higher allocation in the high cost thermal stations, Delhi's share in the Central Sector Hydro Stations is much lower than the shares of most neighbouring States. Power purchase from

NHPC comprises only 4% of Delhi's energy requirement. It can be seen that the share of Punjab in hydro power stations of Bairasul, Salal, Tanakpur, Chamara and Uri far exceeds that of Delhi.

Further, Delhi also has a higher share in nuclear-based generating Stations as compared to some neighbouring States. Punjab, for example, has no share in the relatively costly Nuclear Power Station viz., RAPS-B#3 and RAPS-B#4, while Delhi purchases 2.5% of its energy requirement from NPC.

On account of the above reasons, the average power purchase cost of Delhi is among the highest not only in the Northern Region but also when compared to Maharashtra and Andhra Pradesh. A comparison of the average costs of power purchase is provided in Table 6.16.

**Table 6.16: Average cost of power (paise/kWh)**

Source	Delhi	Punjab (FY-2002-03)	Rajasthan (FY 2001-02)	Uttar Pradesh (FY 2002-03)	Maharashtra (FY 2004-05)	Andhra Pradesh (FY 2004-05)
Sources within the state	190	96**	212	145	88.50	150
Central sector and other sources	205	174	199	181	193	1.98
Average cost of power purchase	203	126	202	164	116	1.76

\*\* Only Variable Costs

Incidentally, it has been observed that despite the fact that the peak load in Delhi normally coincides with the peak in the northern grid, load shedding in some of the neighbouring States is more than that in Delhi. This is because TRANSCO has tied up with various sources including bilateral arrangements with other States. This has improved the reliability of power supply in Delhi but at an additional cost. Delhi's power system, however, requires strengthening of the transmission, sub-transmission and distribution system as the existing system may not be capable of absorbing more than 3600-3700 MW owing to transmission / sub-transmission constraints.

### 6.15.3 Comparison of Retail Tariffs

Despite high costs of power purchase due to the drawal from costly sources both within the State and from the Central Sector and due to higher costs of increased reliability by excess scheduling, the retail tariffs in Delhi for various consumer categories continue to be among the lowest amongst the neighbouring States and when compared to Maharashtra and Andhra Pradesh. The comparison of retail tariffs for Delhi as approved by the Commission with the retail tariffs prevalent in the neighbouring States and other states like Maharashtra and Andhra Pradesh is provided in Table 6.17.



Table 6.17: Retail Tariffs prevalent in Neighbouring and other Progressing States

Category	Delhi (FY 2003-04)	Haryana Tariff order of FY 02)	Uttar Pradesh (Tariff order for FY 04)	Rajasthan* (Tariff Order for FY 02)	Punjab (Tariff Order for FY 04)	Maharashtra (effective from January 1, 2002)	Andhra Pradesh (FY 2004- 05)
<b>Domestic</b>							
<i>Energy charge (paise/kWh)</i>							
0-40 units	220	263	190	170	206	125 (0-30 units) 290 (31-100 units)	145 ( 0-50 units)
41-50 units	220	363					
51-100 units	220		275	275			280
101-200 units	220				344		305
201-300 units	360						475
301-400 units	360	428	320		364	400 (above 300 units)	550 (above 300 units)
above 400 units	410						
Fixed charge (per month)	Rs. 10/ kW	Nil	Rs. 50 per connection per month (< 1kW connected load)	Rs 50 per connection upto 50 units and Rs 75 per connection for above 50 units	Nil	Rs 20 per connection (0-30 units)	
			Rs.100 per connection per month (connected load between 1 kW and 4 kW)			Rs 40 (above 30 units, single phase),	
			Rs. 250 per connection per month (for connected load > 4 kW)			Rs 100 (above 30 units , three phase).	
						Additional fixed charge of Rs 100 per 10 kW or part thereof above 10 kW	
Minimum Charge		Rs. 60 (upto 1 kW), Rs 40 for every additional kW		Rs 65 (95) in rural (urban) area upto 50 units and Rs 90 (120) in rural (urban) area above 50 units	Rs 30 per kW per month		Single phase – Rs. 25/month upto 250W and Rs. 50/month above 250 W

							Three phase – Rs. 150/month
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Category	Delhi (FY 2003-04)	Haryana Tariff order of FY 02)	Uttar Pradesh (Tariff order for FY 04)	Rajasthan* (Tariff Order for FY 02)	Punjab (Tariff Order for FY 04)	Maharashtra (effective from January 1, 2002)	Andhra Pradesh (FY 2004- 05)
<b>Non Domestic / Commercial</b>							
<i>Energy charge (paise/kWh)</i>							
0-100 units	520 1-ph 545 3-ph (upto 100 kW) 470/ kVAh (HT above 100 kW) 540/ kVAh (LT above 100 kW)	419	400	450	417	240 (additional 50 per unit as regulatory charge)	395 (0-50 units) 625 (above 50 units)
above 100 units	Same as above			490		315 (101-200 units) & 410 (above 200 units) (additional 50 per unit as regulatory charge)	
<i>Fixed charge (per month)</i>	Rs. 35/ kW (upto 100 kW) Rs. 150/ kVA (HT above 100 kW) Rs. 200/ kVA (LT above 100 kW)	Nil	Rs. 80 / kW	Rs 80 (120) per connection upto (above) 100 units for load upto 5 kW		Rs 100 per connection (single phase)	
				Rs 40 /kW for load above 5 kW		Rs 150 per connection (three phase)	
				Rs. 60/kVA of Billing Demand for HT Supply		Additional fixed charge of Rs 150 per 10 kW or part thereof above 10 kW	
<i>Minimum Charge</i>		Rs. 120 (upto 1 kW), Rs. 100 for every additional kW or part thereof	Rs. 260 / kW / month	Rs. 140 / service (Rs. 200 / service) in rural (urban) areas for consumers with SCL upto 5 kW and consumption upto 100 units, Rs. 180 /	Rs. 110 per kW per month		Single phase - Rs 65 per month Three phase – Rs. 200/month

				service (Rs. 240 / service) in urban (rural) areas for consumers with SCL upto 5 kW and consumption above 100 units			
				Rs. 180 / kW for consumers with SCL above 5 kW			

Category	Delhi (FY 2003-04)	Haryana Tariff order of FY 02)	Uttar Pradesh (Tariff order for FY 04)	Rajasthan* (Tariff Order for FY 02)	Punjab (Tariff Order for FY 04)	Maharashtra (effective from January 1, 2002)	Andhra Pradesh (FY 2004- 05)
<b>Agriculture</b>							
Metered (Energy Charge, paise/kWh)	125			90 (General Category), 165 (Nursery), 165 (Wells in urban areas & 24 hour supply feeder), 275 (Farm House)	57 paise per unit or Rs 60/BHP/Mon th (with subsidy), 200 paise / kWh or Rs. 205 / BHP / Month (without subsidy)		
0-100		65	60 (rural), 200 (urban)			110	20 (0- 2500units per annum), 50 (above 2500 units per annum)
101-150		53					
151-200		46					
> 200		38					
Irr tubewells, augmentati on canals & lift irrigation		400					
Fixed charge	10	Nil	Rs 10 (20) per BHP per month in rural (urban) areas	Rs. 45 per month		Rs 15 per HP per month	
Minimum charge		Rs. 540, Rs. 410, Rs. 335 and Rs. 218/BHP/ye ar (at various depth levels). Rs. 150/BHP/mo	Rs. 50 (120) per BHP per month for rural (urban) areas	Rs. 200/HP/mon th (Upto 3 HP for wells in rural areas and Rs. 50/HP/mont h for each			

		nth (for direct irrigation tube wells, augmentation on canal and lift irrigation)		subsequent HP), Rs. 450/HP/month (upto 3 HP for Nursery and urban areas and 24 hr. supply), Rs. 700/HP/month (upto 3 HP for farm houses and Rs. 220 for each subsequent HP)			
Unmetered (Energy Charge)				Rs. 85/HP/month (General Category and Special General Category), Rs. 175/HP/Month (Wells in urban areas and 24 hour supply feeder)			
Fixed Charge		Rs. 104/BHP/month (upto 100 BHP), Rs. 75/BHP/month (for next 50 BHP), Rs. 60/BHP/month (for next 50 BHP) and Rs. 48/BHP/month (above 200 BHP)	Rs. 60/BHP/month (< 5 kW), Rs. 70/BHP/month (> 5 kW) (Additional Charge of Rs. 20/connection/month for two lamps of 60 Watts each)	Rs. 15 per month		Rs. 180 /HP/month for category 1 circles and Rs 150 per HP/month for category 2 circles	DPAP areas - Rs 225/HP/Year (upto 3 HP), Rs 375/HP/Year (3-5 HP) , Rs 475/HP/Year (5-10 HP) , Rs 575/HP/Year (above 10 HP Other Areas - 275/HP/Year (upto 3 HP), Rs 425/HP/Year (3-5 HP) , Rs 525/HP/Year (5-10 HP) , Rs 625/HP/Year (above 10 HP

Category	Delhi	Haryana	Uttar	Rajasthan*	Punjab	Maharashtra	Andhra
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	(FY 2003-04)	Tariff order of FY 02)	Pradesh (Tariff order for FY 04)	(Tariff Order for FY 02)	(Tariff Order for FY 04)	(effective from January 1, 2002)	Pradesh (FY 2004-05)
<b>Industrial</b>							
<i>Energy charge (paise/kWh)</i>							
Small Industrial	485 (Up to 100 kW)	428 (LT Industry defined as upto 70 kW)	370 (without TVM, and with TVM but no supply during restricted hours), 405 (with TVM and supply during restricted hours)	344	315	230 (0-1000 units), 250 (more than 1000 units), (additional 50 per unit as regulatory charge)	375 (upto 75 HP)
Medium Industrial				372	357		
<i>Fixed Charge</i>							
Small	Rs. 35/kW	Nil	Rs. 60/BHP or part thereof/month (without TVM)	Rs 30 per HP	Nil	Rs. 60 per HP per month (for 50% of Sanctioned Load) optional MD based tariff, irrespective of CD at Rs. 220/KVA/month	Rs 37/HP/month of contracted load OR Rs 100/KVA/month of contracted demand
Medium			Rs. 80/kVA of BD/month (with TVM))	Rs 45 per HP of SCL or Rs 75 per kVA of BD			
<i>Minimum Charge</i>							
Small		Rs. 120 per kW (for Connected Load upto 20 kW), Rs. 150 per kW (for Connected Load above 20 kW)	Rs. 3360/BHP or part thereof/year (without TVM)	Rs. 140/HP/Month	Rs. 90/kW/month		
Medium			Rs. 4740/kVA or part thereof/year (with TVM but no supply during restricted hours)	Rs. 150/HP/Month (for consumers with SCL between 25-150 HP or MD upto 50 kVA	Rs. 120 / kW / month		
			Rs. 5100/kVA or part thereof/year (with TVM and supply	Rs 260/kVA of BD per month for consumers having			

			during restricted hours)	contract demand (MD exceeding 50 kVA)			
Large Industry							
Energy Charge (paise/kWh)	410/ kVAh (HT) 480/ kVAh (LT)	409	350/kVAh	401	366	210 (additional 50 per unit as regulatory charge)	350
Demand / Fixed charge (per month)	150/ kVA (HT) 200/ kVA (LT)		Rs. 180/kVA	Rs. 90/kVA of billing demand		Rs. 330/kVA/mo nth	Rs 195/KVA/ month
Minimum Charge		Rs. 250 per KVA (of contract demand (Ht Industrial, steel furnaces, Rolling Mills)	Rs 5100/KW/Ye ar	Rs. 440 per KVA of BD per month. Rs. 700 per KVA of BD per month (for Arc furnaces), Rs. 520 per KVA of BD per month (for others)	Rs 120/KW/mo nth		50 units/KVA of billing demand per month. Guarantee d energy off take at 85% LF on CMD or recorded demand whichever is higher. Energy falling short of 85% LF will be deemed as deemed consumpti on.

## **7. Directives**

### **7.1 Introduction**

The power sector in Delhi has undergone through a transformation in the last two years. Consequent to the unbundling of the erstwhile DVB and the reform of the power sector of Delhi during 2002, the distribution business of Delhi is being managed by the three private Distribution Companies (DISCOMs) and the transmission function is being undertaken by Delhi Transco Limited (TRANSCO).

The Commission issues directives to the Utilities in the State with the specific objective of attaining the operational efficiency and streamlining the flow of information, which would be beneficial for the Sector both in short and long term. In order to evaluate the progress made by the Petitioner towards the achievement of the directives issued by the Commission, it is imperative to understand the rationale behind issuance of the directives. The Commission has been constituted under the Delhi Electricity Reform Act, 2000 (DERA), and Section 11(1)(d) of the DERA mandates the Commission to promote competition, efficiency and economy in the activities of the electricity industry. Similarly, Section 11(1)(m) of DERA mandates the Commission to regulate the working of the licensees in the National Capital Territory of Delhi, and to promote their working in an efficient, economical and equitable manner. Further, Section 61 of the Electricity Act, 2003 mentions that the Commission shall be guided by the factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments in specifying the terms and conditions of determination of tariff. Thus, the thrust of the directives issued by the Commission is to create an enabling environment so that the utilities are able to provide good quality of electricity supply to the consumers of Delhi at optimum costs.

### **7.2 Directives in the Bulk Supply Tariff Order dated February 22, 2002**

The Commission issued the Bulk Supply Tariff Order (BST Order) in February 2002. The Commission issued certain directives through the BST Order, which were meant for the unbundled entities in the sector. The directives given in the BST Order were discussed in detail in the Commission's Order dated June 26, 2003. While reviewing the compliance against the directives given in the BST Order, the Commission directed the Petitioner to comply with one of the directive issued (Preparation of Fixed Asset Register) in the BST Order within one month from the date of the Order. The progress achieved by the Petitioner towards this directive is discussed below.

#### **7.2.1 Preparation of Fixed Asset Register**

The Commission, in its BST Order, had directed the Petitioners to finalise by June 30, 2002, the Fixed Asset Registers (FAR) separately for the successor entities. The Commission had also directed the Petitioner to provide the break-up of Gross Fixed Assets (GFA) and Capital Work in Progress (CWIP)

in the Opening Balance Sheet of the DISCOM by June 30, 2002. While noting down the performance achieved by the Petitioner against this directive, the Commission, in its Order on ARR and Tariff Petition dated June 26, 2003, observed that *the Petitioner is yet to submit the details of the GFA and CWIP in the opening balance sheet of DISCOM.*

The Petitioner had submitted the FAR to the Commission on May 27, 2003 and finalised summary report on July 21, 2003. FAR has been prepared by valuing all the Fixed Assets by apportioning the business value arrived at the time of privatising the Distribution Company (BRPL). The Commission asked for the clarification about non-submission of details of the CWIP along with FAR. The Petitioner, in its letter dated September 16, 2003, has clarified that it has not submitted any details of CWIP as no CWIP has been transferred to the Petitioner as on July 1, 2002 as per the Opening Balance Sheet under the Transfer Scheme notified by the GNCTD. Petitioner mentioned that audited Balance Sheet of the Petitioner has also reflected CWIP as Nil and is not in a position to furnish any further details on CWIP in the opening balance sheet. The Petitioner further mentioned that the Delhi Electricity Reform (Transfer Scheme) Rules – 2001, dated November 20, 2001 and subsequent amendments thereafter, are statutory in nature and binding on the DISCOMs and other stake-holders.

The Commission is of the view that the organizations like erstwhile DVB would possibly have some Capital Work In Progress, which would have been transferred to the DISCOMs concerned. Accordingly, the Commission vide its letter dated October 27, 2003 has requested the GNCTD to confirm the stand taken by the DISCOM that there were no capital works in progress on the date of transfer. The Commission, on April 20, 2004, has again requested the Government to expedite the matter and provide the comments of the Government to the Commission urgently. However, the Commission has not received any response from the Government till date.

### **7.3 Directives in the Order on ARR and Tariff Petition dated June 26, 2003**

The Commission, considering the changed circumstances due to restructuring and privatisation, had issued new directives to the Petitioner, in its Order on ARR and Tariff Petition dated June 26, 2003 (ARR and Tariff Order). The progress achieved by the Petitioner towards the directives issued in Order dated June 26, 2003 is discussed below.

#### **7.3.1 Development Charges and Deposit Works**

The Commission had requested the GNCTD to resolve the issue of execution of deposit works within a period of two months from the date of issue of ARR and Tariff Order dated June 26, 2003, in consultation with the TRANSCO, DISCOMs and the developing agencies such as DSIDC, DDA, etc. The Commission stressed the need of a forward path to execute these works while addressing issues like details of deposit works to be executed, works to be executed by TRANSCO and each DISCOM and the funding arrangements.

As regards the works to be executed by TRANSCO and each DISCOM, the GNCTD has clarified the following vide their letter dated July 9, 2003:



- 1) *Non-capital works below 33 KV level shall be the responsibility of DISCOMs irrespective of whether these works are in progress/nearing completion and for these works the Holding Company shall not be called upon to contribute any amounts to the DISCOMs even if DVB had received any advances on account of these works.*
- 2) *Since, Transco is primarily responsible for the network of 220 KV and above, it should not be further involved in the works of 66/33 KV, which is primarily the responsibility of Discoms. Therefore, any deposits made by the agencies to DVB for non-capital works of 66/33 KV category should be returned by the Holding Company to the agencies concerned after deducting amount on account of progress made in the works by DVB before unbundling. However, before returning any deposits to agencies they may be consulted whether the pending works need to be completed. If so, the deposits would be transferred to the Discoms concerned.*

As regards the deposits received prior to privatisation by erstwhile DVB from DDA, MCD and others, the GNCTD has issued a letter clarifying the matter through their letter dated July 16, 2003. An extract from the letter is reproduced below for reference:

*"It is therefore clear that according to the Transfer Scheme, the Discoms have to bear the full cost of all deposit works below the 11 KV level notwithstanding that any deposits made with DVB for such works remained unutilised at the time of unbundling. It would be the expectation of Discoms that the costs incurred by them in discharging their obligations under the Transfer Scheme would be included in their Annual Revenue Requirements. The Commission may like to re-examine the matter in this light."*

The Petitioner has requested the Commission to allow such expenditure incurred by the Petitioner in full, as capital expenditure in the ARR of the Petitioner instead of limiting it to 50% of such cost of works as per the amendment to Transfer Scheme Rules dated June 27, 2003 and give suitable effect in ARR of the Petitioner.

As mentioned in its Order on review of ARR and Tariff Order dated November 25, 2003, the Commission is of the opinion that this issue is not directly related to the ARR and Tariff Process and needs to be dealt separately.

### **7.3.2 SPD Connections**

The Commission had directed the Petitioner to settle modalities of working of the system for supplying power to Single Point Delivery connections under applicable legal provisions and to apprise the Commission of the same within 6 months time from the date of issue of the ARR and Tariff Order dated June 26, 2003.

The Petitioner has stated that it has inherited more than 200 SPD contractors from erstwhile DVB who had executed contracts for 5 to 7 years. The Petitioner further submitted that with the enactment of Electricity Act 2003, the issue of supply of electricity through SPD connection is permitted where SPD shall work as a franchisee of DISCOMs. The Petitioner stated that the conversion of existing SPD into franchisee or outright takeover of the business by DISCOMs is a complex issue with legal/contractual ramifications. The Petitioner feels that it is also a sensitive issue

as the existing SPD contracts cater to large number of consumers and transition arrangement will necessarily have to take this into consideration to avoid any law and order problems. However, the Petitioner has not indicated any specific plan or time frame for settling the modalities of the working of the system. The matter is being separately dealt by the Commission.

### **7.3.3 Performance Standards (Metering and Billing Regulations)**

The Commission had directed the DISCOMs to strictly adhere to the guidelines set in the 'Performance Standards (Metering and Billing) Regulations 2002.

The Petitioner has submitted that it has implemented/in the process of implementing, computerisation, and networking of all offices in its licensed area. The billing software and database finalisation are underway and will be streamlined and stabilised by end of December 2004.

However, during the ARR process, several respondents have raised the metering and billing problems. Further, the Commission also receives complaints regarding metering and billing on regular basis. For redressal of complaints related to metering and billing, the Commission has designated three Grievances Redressal Officers (GROs), one for each DISCOM.

### **7.3.4 Investments**

While accepting the proposed APDRP investment plan at Rs. 265.2 Crore, the Commission had directed the Petitioner to ensure that the investments proposed under APDRP schemes for FY 2003-04 are completed to avail the benefits of the scheme and submit the quarterly progress report to the Commission. The Commission had also directed the Petitioner to obtain the Commission's approval for all the capital investment schemes.

In its Petition, the Petitioner has submitted the progress report up to second quarter with the Petition and item wise details of actual capital expenditure incurred during FY 2003-04. The Petitioner also submitted the scheme wise justification and scheme wise break-up of cost estimates on January 16, 2004.

The Petitioner has been submitting the quarterly progress report of the capital investment schemes. However no formal approval have been sought by the Petitioner while submitting the detailed project report along with the cost benefit analysis. The Commission has also observed a number of discrepancies in the submissions made by the Petitioner on the capital expenditure schemes like mismatch in the expenditure incurred on particular schemes on quarter to quarter basis, inconsistency in reporting of a scheme, etc.

The Commission directs the Petitioner to submit the complete DPR along with cost-benefit analysis for schemes more than Rs. 2 Crore for obtaining the scheme-wise investment approval from the Commission as per Clause 10 of the License for Distribution and Retail Supply of Electricity. The Commission further directs that the Petitioner should submit a separate Petition for approval of schemes for FY 2005-06, by September 2004. **(3.6.2)**

The Commission reiterates its direction to the Petitioner to submit the quarterly progress report of investments. The Commission also directs the Petitioner to maintain consistency in reporting the schemes for obtaining approval and future reporting on quarterly/annual basis. **(3.6.2)**

**The Commission directs the Petitioner to ensure that the progress of investment scheme should not be affected on account of the delayed receipt or non-availability of APDRP funds. The Commission would consider actual interest expense arising on account of delayed receipt or non-availability of APDRP funds through truing up of expenses for FY 2004-05. (3.10.2)**

### **7.3.5 R&M Works**

The Commission had directed the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The Report on transformer failure rate should also be submitted on a quarterly basis.

The Petitioner, in its Petition, has submitted that it will separately submit the details of the materials issued against R&M works. It has further stated that it has submitted the information as per the prescribed formats with supporting data regarding transformation failure.

The Petitioner has submitted only the list of major materials drawn from the stores for the period July 2003 to March 2004. Quarterly details of R&M works have not been submitted by the Petitioner.

The Commission further directs the Petitioner to maintain a separate record of the items issued from the Stores for R&M works, and submit the same to the Commission along with the details of the actual R&M Works carried out at the end of each quarter. The Report on transformer failure rate should also be submitted on a quarterly basis along with the above data on the R&M items issued.

**(3.7.2)**

#### **7.3.5.1 Arrears to the Holding Company**

The Commission has requested the GNCTD to review the treatment of DVB arrears to the Holding Company and issue an appropriate amendment as the matter was pertaining to the Transfer Scheme.

The GNCTD has reviewed the matter and issued a clarification through letter No.F.11(99)/2001-Power/531 dated March 31, 2004 that the original transfer scheme would remain as it is and the receivables against DVB arrears would be shared between the Holding Company and the DISCOMs in the ratio of 80:20 respectively.

The Commission feels that it would be equitable and fair if the revenue realised on account of recovery of arrears remain in the sector and as recommended in the Tariff Order dated June 26, 2003, are passed on to the Delhi Transco Limited, instead of the Holding Company. Accordingly, the Commission has requested to the Government through letter dated May 25, 2004 to reconsider the matter in the interest of consumers of Delhi who otherwise will have to bear an unwarranted huge tariff shock.

As discussed in earlier sections, the Commission is of the opinion that it will not be fair at all to pass on the burden of past receivables of the sector to consumers of Delhi and this will warrant in huge tariff shock to consumers. The 80% of total receivables for three years i.e. FY 2002-03, FY 2003-04 and FY 2004-05 works out to around Rs. 300 Crore. In case these receivables are to be passed on to Holding Company instead of TRANSCO as envisaged in Commission's Order dated June 26, 2003, these receivables along with carrying cost on arrears of FY 2002-03 and FY 2003-04 has to be considered as expense in ARR, which will increase the Revenue Gap by around Rs. 330 Crore to be bridged by tariff increase. To bridge this additional sector revenue gap of Rs. 330 Crore, the tariff increase required will be around 9%. Considering these aspects, the Commission vide its letter dated June 7, 2004 has again written to the Government for requisite action in the matter to protect the consumers of Delhi from unwarranted tariff hike. Accordingly, the Commission while estimating the ARR and Revenue Gap has considered 80% of the collected arrears remaining within the sector as Revenue to TRANSCO.

#### **7.3.6 District-wise AT&C Losses**

The Commission had directed the Petitioner to provide meters at the periphery of each district within three months from the date of issue of ARR and Tariff order dated June 26, 2003 and to start compiling the corresponding district-wise information on a month-to-month basis to be submitted along-with the ARR and Tariff Petition for FY 2004-05.

The Petitioner submitted that it has initiated the works on metering of feeders at 33kV and 11kV levels and the metering is expected to be completed by the end of December 2003. It has also stated that it has initiated the indexing of consumers vis-à-vis distribution transformer and respective feeder and will be in a position to supply data on AT&C losses subsequent to this work. However the Petitioner has not specified any time frame for submitting this information.

However, the Commission has not received any submission on actual district wise AT&C loss. The Commission directs the Petitioner to submit district wise information on AT&C loss at the end of a quarter commencing from June 2004.

#### **7.3.7 Base paper on Voltage Linked Tariff**

The Commission had indicated its wish to gradually move towards voltage-linked tariff and had directed the Petitioner to submit a base paper on voltage-linked tariff by October 31, 2003. The Petitioner was also directed to maintain and submit information/data in the formats specified by the Commission for arriving at voltage-linked tariff for each of the consumer categories along with the ARR and Tariff Petition for FY 2004-05.

The Petitioner has submitted that it has initiated activities for capturing data with relevant fields as well as initiated the mapping of all consumers with respect to its deployed assets and based on this it will be submitting the base paper on voltage linked tariff .

**However, the base paper, information and data for arriving at voltage-linked tariffs has not been submitted by the Petitioner till date. The**

**Commission is disappointed with a delay in preparation of base paper on voltage-linked tariff as it would affect determination of voltage-wise cost of supply. The Commission directs the Petitioner to submit the base paper on voltage-linked tariffs within 1 month of the date of issue of this Order. The Commission further directs the Petitioner to maintain and submit information/data in the formats specified by the Commission for arriving at voltage-linked tariff for each of the consumer categories along with the ARR and Tariff Petition for FY 2005-06.**

#### **7.3.8 Information on Cost of Supply in prescribed formats**

The Commission had indicated its intent to move towards the cost of supply in future and directed the Petitioner to compile data in the prescribed formats with suitable modifications, if required, so that the information on fixed cost of service can be correctly determined and present the same with the ARR and Tariff Petition for FY 2004-05.

The Petitioner has submitted that it has furnished data to the extent of available in prescribed formats .

**The Commission directs the Petitioner to submit the information on Cost of Supply in prescribed formats along with the ARR and Tariff Petition for FY 2005-06.**

#### **7.3.9 Database of Consumers having electronic meters**

The Commission had directed the Petitioner to start developing the database for the consumers, for whom electronic meters have been/are being provided by taking data logs each time the reading is done, and submit a report on the analysis of such database with the ARR and Tariff Petition for FY 2004-05.

The Petitioner, in its Petition for FY 2004-05, has submitted that it has initiated steps for developing the data base for consumers for whom electronic meters have been provided and it has submitted sample data along with the Petition

The Commission directs the Petitioner to start submitting a report on the analysis of such database on a monthly basis along with the ARR and Tariff Petition for FY 2005-06.

#### **7.3.10 Installation of Meters**

The Commission had directed the Petitioner to complete installation of electronic meters for all the consumers, except those upto 10 kW being supplied on single phase, of SIP/NDLT categories by March 31, 2004 so that kVAh (or kWh and kVARh) system of billing energy could be appropriately considered for introduction during tariff determination for FY 2004-05. The Commission had asked the Petitioner not to replace the electronic meters provided by the erstwhile DVB unless there are compelling reasons to do so.

In its Petition, the Petitioner submitted that it has taken up the installation of electronic meters for consumers of all categories in right earnest. However no progress of installation of electronic meters was provided in the Petition.

**The Petitioner has not complied with the directive and the work is under progress to complete the installation. The Commission directs the Petitioner to complete installation of electronic meters for all the consumers, except those upto 10 kW being supplied on single phase, of SIP/NDLT categories by July 2004 and submit the status report on installation of meters at the end of each quarter till the Petitioner completes the installation of such meters.**

#### **7.3.11 Installation of meters for domestic consumers paying flat rates on plot size basis**

The Commission had directed the Petitioner to install meters for all domestic consumers paying flat rates on plot size basis by October 31, 2003, so that they may be billed on applicable tariff rates thereafter.

The Petitioner has not submitted information on the compliance of this directive. The Commission directs the Petitioner to submit the status of meter installation for this sub category within 1 month of the date of issue of this Order. The Commission reiterates its directive to install meters for all such consumers within 3 months of the date of issue of this Order.

#### **7.3.12 Data on kVAh, kWh & kVARh**

The Commission had directed the Petitioner to maintain data on average power factor, kWh, kVAh and kVARh consumption for consumers already having electronic meters installed and for others as soon as electronic meter gets installed and present the same to the Commission with ARR and Tariff Petition for FY 2004-05.

The Petitioner has submitted a sample data of average power factor for 2759 NDLT and SIP consumers of the total of 13,635 consumers where electronic meters are installed.

The Commission directs the Petitioner to start submitting report on data on average power factor, kWh, kVAh and kVARh consumption on monthly basis commencing from June 2004.

#### **7.3.13 Base Paper on Time of Day (ToD) Metering**

The Commission had directed the Petitioner to maintain a time-differentiated data for consumers with ToD metering facility and prepare a base paper on ToD metering covering all the issues including inferences from the data, and submit it to the Commission by October 31, 2003.

In its Petition, the Petitioner had requested the Commission to extend the time limit for submission of Base Paper on Time of Day Metering till January 31, 2004. In the subsequent submissions, the Petitioner had complied with the directions of the Commission and has submitted the paper.

The Commission is of the opinion that the matter of implementation of TOD tariff has to be examined in detail considering the practical aspects of implementing TOD tariff, benefits of TOD tariff including potential of shift in demand considering the system load curve, revenue impact of

TOD tariffs, etc. The Commission proposes to take up this issue of implementation of TOD tariffs separately.

#### **7.3.14 Consumption by employees of erstwhile DVB**

On the issue of consumption of power by employees of erstwhile DVB, the Commission had directed the Petitioner to evolve a mechanism for payments and accounting either at inter-company or at individual employee level and submit a report on the same by October 31, 2003.

The Petitioner had sought an extension for submission of mechanism for payments and accounting of consumption by erstwhile DVB employees and the Commission had granted the extension till February 29, 2004.

**However, the Petitioner has not submitted the mechanism for payments and accounting of power consumption by employees of erstwhile DVB before the Commission till date. The Commission directs the Petitioner to submit the mechanism for payments and accounting within 1 month of the date of issue of this Order.**

#### **7.3.15 Slab wise Consumption Data**

The Commission had directed the Petitioner to maintain consumption data for the domestic category in blocks of 50 units, i.e. 0-50 units, 51-100 units, 101-150 units, etc. and submit it to the Commission along with the ARR and Tariff Petition for FY 2004-05 to enable the Commission to re-design slabs depending on the consumption pattern.

In its Petition, the Petitioner has submitted the slab wise consumption data in block of 50 units and has complied with the directive.

#### **7.3.16 Maintenance of Streetlights**

The Commission directed MCD to jointly work out a clear-cut proposal with DISCOMs, giving the details of scope of works and maintenance charges, and submit it to the Commission within the next two months from the date of the ARR and Tariff order dated June 26, 2003.

In its Petition, the Petitioner has submitted that the MCD has submitted its proposal regarding finalisation of maintenance/replacement charges of Streetlights and the Petitioner has submitted its response on MCD's proposal to the Commission. The Petitioner has requested the Commission to consider the actual expenses in maintaining streetlights while finalising the rates for maintenance of streetlights.

The Commission has separately dealt with the proposal and has issued the Order on levy of maintenance charges for streetlights on March 16, 2003.

### **7.4 Penalty for non compliance**

The Commission has discussed the status of the compliance of the directives issued to the Petitioner in the above sections. In fact many of these directives such as evolution of mechanism for

payment and accounting of consumption by erstwhile DVB employees, installation of meters, etc., if not complied with results in serious financial implication, the burden of which will ultimately fall on consumers. Some non-compliances, e.g. investment in infrastructure, will have an impact on the quality of supply, which might seriously harm the consumer installations resulting in financial loss to the consumers. This might also result in the inability of the licensee in meeting the universal service obligation as stipulated under EA 2003. In case of R&M work, any delay in implementation of the R&M Schemes might have a financial as well as quality implication and this information is critical for the Commission for tariff setting exercise. Further, if Metering and Billing Regulations are not complied with strictly, it results in consumer complaints related to metering and billing and the redressal of these complaints results in unwarranted waste of time. Further any delay in compliance/non-compliance would also hamper promotion of efficiency and economy in the activities of the electricity industry.

The Commission has taken serious note on the substantial under achievements in the Capital Investments during FY 2003-04 as compared to investments approved by the Commission in the Order dated June 26, 2003. The Commission levies a token penalty of Rs. 1 Crore for partial compliance of the directives, primarily due to substantial under achievement in capital investment target for successive second year. The Commission has deducted Rs 1 Crore towards token penalty while estimating the ARR for FY 2004-05. The Commission expects that the Petitioner would take the necessary corrective measures on the ground to make up for the under performance in the previous years.

In case of non-compliance of directives in future by the Petitioner, the Commission will be compelled to levy the penalty based on the estimated financial implication of such non-compliance. Further, the Commission may also resort to other suitable penal actions as stipulated under the Act and License Conditions .

## **7.5 List of New Directives**

In addition to the directives issued earlier which have been discussed in the above sections, most of which are yet to be complied by the Petitioner, the Commission has also issued certain new directives, which have been detailed in the respective sections, and have been listed below for easy reference:

### **7.5.1.1 Treatment of replacement of meters, transformers and switchgears (3.7.2)**

The Commission directs the Petitioner to clearly demarcate expenditure related to replacement of meters, transformers and switchgears and include the same in capital expenditure in future submissions and not as a part of the R&M expenses.

### **7.5.1.2 Monitoring of investments (3.6.2)**

In line with the recommendation of the CEA, the Commission directs the TRANSCO and DISCOMs to form a Steering Committee with one member as the Commission's Representative, within 7 days of the date of issue of this Order. The Steering Committee would be responsible for developing an



integrated and consolidated implementation plan and monitoring thereof. The Commission directs the TRANSCO and DISCOMs to submit the consolidated plan within 15 days of the date of issue of this Order and submit quarterly monitoring reports thereafter.

**7.5.1.3 A&G Expenses (3.4.2)**

The Commission directs the Petitioner to take a prior approval for an increase in A&G expenses during the FY 2004-05 beyond 10% of the approved A&G expenses approved, before committing/incurred an expense.

**7.5.1.4 R&M Expenses (3.7.2)**

The Commission also directs the Petitioner to take a prior approval for an increase in R&M expense during FY 2004-05 beyond 10% of the approved R&M expense before committing/incurred an expense.

**7.5.1.5 Slab Load for Domestic Consumers**

The Commission directs the Petitioner to maintain the data for sanctioned load in slabs of 0-2 kW, 2-5 kW and 5 kW and above. The Commission also directs the Petitioner to maintain the data regarding the number of consumers, total sanctioned load and energy consumption in each of the above slabs.

**7.5.1.6 Enhancing the Limit for SIP from 100 kW to 150 kW (5.4.2).**

Some stakeholders have requested the Commission to raise the limit for classification under SIP category from 100 kW to 150 kW/250 kW. The Commission also directs the Petitioner to submit a Base Paper on this issue to the Commission, within 3 months from the date of issue of this Order.



## 8. Tariff Schedule for the Year 2004-05

### Definitions

**Act** shall mean the Delhi Electricity Reform Act, 2000.

**Electricity Act** shall mean the Electricity Act, 2003.

**Commission** shall mean Delhi Electricity Regulatory Commission.

**Licensee or License Holder** shall have the same meaning as provided under clause (f) of subsection (1) of section 2 of the Act, its predecessor and successor entity(ies).

**Rules** shall mean Indian Electricity Rules, 1956.

**Regulations** shall mean the Regulations framed by the Commission.

**Order(s)** shall mean the Tariff Order(s) issued by the Commission from time to time.

**Schedule** shall mean this Tariff Schedule.

**Consumer** shall mean any person who is supplied with energy by licensee and includes any person whose premises are for the time being connected for the purpose of receiving energy with the works of the licensee.

**Premises** shall mean land or building or part thereof in respect of which separate meter or metering arrangements have been made by the licensee for supply of electricity.

**Domestic Premises** means premises for bonafide residential purposes.

**Industrial Premises** shall mean premises, including the precincts thereof, in any part of which an industrial activity is carried on.

**Non-Domestic Premises** shall mean all premises other than domestic, industrial or agricultural premises unless otherwise stated.

**Billing Cycle** shall mean the period for which the bill is raised.

**Connected load** shall mean the sum of the rated capacities of all energy consuming apparatus duly wired and connected to the power supply system of licensee including portable apparatus in the consumer's premises. Further, connected load shall be calculated after allowing a tolerance of 5%.

The connected load shall not include the load of spare plug sockets, stand by or spare energy consuming apparatus installed authorisedly, through change over switch, which cannot be operated simultaneously and load exclusively meant for fire fighting purposes. The equipment which is under installation and not connected electrically, equipment stored in warehouse/showrooms either as spare or for sale is not to be considered as "connected load".

Either heating or cooling use of these apparatus/loads shall be taken into account as per prevailing season (i.e. 1<sup>st</sup> April to 30<sup>th</sup> September for cooling use and 1<sup>st</sup> October to 31<sup>st</sup> March for heating use).

Connected load shall be used only for the purpose of assessment in case of direct theft or dishonest abstraction of energy or unauthorized use of energy.

**Sanctioned Load** shall mean the load in kW/HP (kilo Watt/Horse Power) for which the licensee has agreed to supply from time to time subject to the governing terms and conditions.

**Change-over switch:** The consumer shall be allowed the installation of change-over switch with the prior intimation in writing to the licensee, subject to the condition that the details of such energy consuming apparatus connected through change-over switch shall be specifically mentioned in the Test Report submitted by the consumer and verified as such at the time of release of load or any time thereafter. The higher of the capacities of these two energy consuming apparatus shall be taken into account while computing the connected load.

**Contract Demand** shall mean:

(a) The demand in kVA (kilo Volt Ampere) as provided in the agreement, for which the licensee makes specific commitment to supply from time to time subject to the governing terms and conditions. In any case, it shall not be less than 60% of the sanctioned load.

or ;

(b) Higher of the sanctioned/declared connected load, wherever contract demand has not been provided in the agreement.

**Maximum Demand** shall be taken as the reading indicated by maximum demand indicator in kW or kVA whichever is applicable.

**Billing Demand** shall mean highest of the following

- i) The contract demand,
- ii) The maximum demand indicated by the meter during the billing cycle.

**Demand Charges** shall mean the amount chargeable for the billing cycle based upon the billing demand in kVA.

**Fixed Charges** shall mean the amount chargeable for the billing cycle based upon sanctioned load.

**Energy Charges** shall mean the charges for energy actually taken by the consumer in kWh (kilo Watt Hour) or kVAh (kilo Volt Ampere Hour), wherever applicable, in any billing cycle. This is in addition to demand/fixed charges, wherever applicable.

**Two Part Tariff:** The two-part tariff, where applicable, shall comprise of the demand/fixed charges, as the case may be, plus energy charges payable together for the billing cycle.

**Average Power Factor:** The average power factor shall be taken as the ratio of the kWh to the kVAh (kilo Volt Ampere Hour) supplied during the period.

**Continuous Industries:** The industries, which have been considered as continuous for grant of exemption from peak load hours restrictions.

Words or expressions occurring in this Schedule and not defined herein but defined in the Act /Electricity Act/Rules/Regulations/Orders shall bear the same meaning as in the Act/ Electricity Act/ Rules/ Regulations/ Orders.

#### **Violation of provisions of Schedule**

#### **Change of category from Non-Domestic Low Tension/Small Industrial Power (NDLT/SIP) to Mixed Load High Tension/Large Industrial Power (MLHT/LIP) due to unauthorised load**

##### **8.1.1.1 Levy/withdrawal of bulk supply tariff**

The cases of change of category from NDLT /SIP to MLHT/LIP due to unauthorised load shall be dealt with as under:

i) In case Maximum Demand as indicated by Maximum Demand Indicator (MDI) of NDLT/SIP connection is found to be more than 100 kW, the bulk tariff (MLHT/LIP) under relevant category on LT (400 V) shall be charged for six months after the load is brought within SIP/NDLT limit .

#### **Use of electrical load for category of use other than sanctioned category**

i) Use of electrical load for category of use other than that for which it was sanctioned shall be considered as violation of the provisions of Schedule, e.g.:

- a) Domestic connections used for non-domestic or industrial purposes
  - b) Non-domestic connection used for industrial purposes.
  - c) Agriculture connection used for domestic, non-domestic, industrial or farmhouse etc.
  - d) Industrial connection used for non-domestic purposes
- ii) In the above case, total consumption shall be treated as consumption under category of use and the consumer shall be billed at a penal rate equivalent to one-and-half times the tariff applicable for the relevant category of actual use with retrospective effect for the past three (3) months for domestic and agricultural categories and for six [6] months for all other categories reckoned back from the date of detection unless evidence to the contrary is produced by the consumer. Licensee shall issue notice to consumers for completion of commercial formalities such as additional security deposits etc for change in category of usage. The above penal tariff shall be applicable till the consumer completes the commercial formalities to get the change of category regularized; thereafter, normal tariff for the applicable category shall be levied.

- iii) Application of such Tariff shall be continued in the subsequent bills. However, where consumer pays the requisite Inspection Fee with a request for change of such tariff to that of use of the connection as per the original sanctioned category, to the satisfaction of the licensee, the category of tariff shall suitably be changed after verification, from the date of consumer's request.

#### **Cases not to be treated a violation of Schedule**

The following shall not be treated as violation of the provisions of the Schedule:

- i) In case of domestic/non domestic connection(s), extension of supply from connection to other portion of the building/plot including for servant quarters, garages or for certain activities covering social requirements relating to religious functions, sports etc. in residential areas so long as the supply is not extended to any portion for which connection has been disconnected due to non payment of dues and there is no change in the category of use.
- ii) In industrial premises where the supply is used by one or more persons where partition in business takes place or division in the family occurs.
- iii) User of the connection changes due to succession.
- iv) Change of firm from Private Limited to Public Limited or vice-versa.
- v) Supply to activities incidental to main activity, for example supply to chemist shop in nursing homes and hospitals, tea shop, canteen, employees' cooperative store, dispensaries, retail outlets of own products etc. in an industry, puncture shop in petrol pumps etc. provided that the load for such activities remains within 10% of the sanctioned load or 10 kW, whichever is less.
- vi) Professionals such as Doctors, Engineers, Lawyers, CA's, Journalists and Consultants practicing from their residence irrespective of location provided that such use shall not exceed 25% of the area of the premises or 50 Sq. meters, whichever is less.
- vii) For cottage industries operating in residence by family members only, where electricity is not used for processing/manufacturing of goods such as repair of shoes by cobbler, Dhobi where ironing of clothes is not done by electricity, stitching/knitting if machines are not operated with electricity, etc.
- v) In industrial premises where upto 10% of the sanctioned load or 10 kW whichever is less, is used for domestic/non-domestic purposes by any agency even other than the registered consumer provided that the main industrial activity for which the connection was sanctioned continues.

#### **Installation of Shunt Capacitors**

##### **Low Power Factor (LPF) Surcharge**

No consumer shall allow the average power factor of the supply taken by him to fall below 0.85. In case shunt capacitors of adequate ratings are not installed and maintained in proper working

order or average power factor is found to be below 0.85 on verification, an LPF surcharge @ 20% shall be levied on the demand/fixed charges, as the case may be, plus energy charges of the bill from the billing cycle of the date of inspection/verification.

LPF penalty shall be levied only when it is established by measurements meters that the average power factor of the installation is less than 0.85.

#### **Applicability of LPF Surcharge**

Where Billing of energy charges is done on the basis of kVAh recording of the meter above clause shall not be applicable.

#### **Provisions for Assessment of Energy in existing Tariff Schedule**

The theft of electricity shall be charged as per provisions of Performance Standards (Metering & Billing) Regulations as applicable from time to time. Formula for assessment of consumption of energy shall be as under:

#### **Assessment of Energy in cases of theft in permanent connections**

*Energy consumption assessment formula*

*Units assessed = L x D x H x F where*

*i) L = Connected in kW where kWh rate is applicable and in kVA where kVAh rate is applicable*

*ii) D is working days per month, during which theft/pilferage is suspected and shall be taken for different categories of use as below:*

<i>a) Continuous industry</i>	<i>30 days</i>
<i>b) Non-continuous industry</i>	<i>25 days</i>
<i>c) Domestic use</i>	<i>30 days</i>
<i>d) Agriculture</i>	<i>30 days</i>
<i>e) Non-Domestic (continuous)</i>	
<i>viz. Hospitals, call center,s hotels and restaurants,</i>	
<i>guest houses, nursing homes, petrol pumps</i>	<i>30 days</i>
<i>f) Non domestic (general) i.e. other than (e)</i>	<i>25 days</i>

*iii) H is use of supply hours per day, which shall be taken for different categories of use as below:*

<i>a) Single shift industry (day/night only)</i>	<i>10 hrs.</i>
<i>b) Non-continuous process industry (day &amp; night)</i>	<i>20 hrs.</i>
<i>c) Continuous process industry</i>	<i>24 hrs.</i>
<i>d) Non-domestic (general) including restaurants</i>	<i>11 hrs.</i>

Hotels, hospitals, nursing homes guest houses, petrol pumps	20 hrs.
e) Domestic	8 hrs.
f) Agriculture	10 hrs.

iv) F is load factor, which shall be taken for different categories of use as below:

a) industrial	60 %
b) non-domestic	60%
c) domestic	40%
d) agriculture	100%
e) direct theft	100%

#### **Assessment of Energy in cases of theft in Temporary Connections**

Theft of energy detected during marriages and other occasions for temporary connections shall be assessed as under :

Units assessed =  $L \times D \times H$ , where

$L$  = load (connected or sanctioned load whichever is higher) in kW where kWh rate is applicable and in kVA where kVAh rate is applicable

$D$  = No. of days for which supply is used

$H$  = 12 hours

**Note: i) In case the assessing officer has reasons to substantiate higher consumption pattern, other than proposed above in a particular case, it could be worked out giving reasons in his report. The competent authority will pass speaking orders.**

**iii) The working hours for purpose of assessment in the cases of bonafide domestic use for operating domestic water pump, washing machines and petty domestic appliances etc. shall not be considered for more than one hour working per day on 100% load factor and microwave ovens and petty domestic appliances with fractional horse power capacity less than 200 watts e.g. mixers, grinders and hair dryers shall not be taken into account.**

#### **Application**

##### **Contract Demand**

The contract demand as per existing agreement shall be treated as deemed enhanced by the excess connected load declared by the consumer and accepted against the specific scheme announced by licensee.



**Electricity taxes and other levies**

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.

**Non-payment of bills**

Non-payment of the bills including the supplementary bills on the due dates specified thereon shall be deemed to be breach of contract and would, therefore, attract penal action including disconnection of supply under the provisions of Act/ Electricity Act/Rules/Regulations/Orders.

**Surcharges**

All surcharges shall be levied on the basic tariff applicable to the category of use or category of sanction, whichever has higher tariff.

**Payments**

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. This will also apply to temporary connections, where payment of final bill amount after adjustment of consumption deposit, is not made by due date.

**Interpretation/clarification**

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.

**Tariff for the year 2004-05**

<b>Category</b>		<b>Fixed Charges<sup>1</sup></b> (Rs./kW/month)		<b>Demand Charge<sup>2</sup></b> (Rs./kVA/month)	<b>Energy Charges</b> (Paise/kWh)	
<b>1. Domestic</b>	1.1 J J Clusters				Rs 175 / Month	
	1.2 Domestic Lighting/Fan and Power (Single Delivery Point and Separate Delivery Points/Meters)	Load (kW)	FC (Rs/month)	-	Units/month	Energy Charges
		Up to -	20		0-200	220
		2-5	50		201-400	360
		Above 5	10/kW		Above 400	410
	1.3 Domestic Lighting /Fan and Power on 11 kV single delivery point for CGHS and other similar group housing complexes <sup>3</sup>	Rs 10/ kW/mth		-	257.8 paise/kWh (303.3 paise/kWh with 15% rebate)	
	1.4 Domestic Lighting/Fan and Power Connections in unelectrified Left Out Pockets . Plot sizes: i) up to 50 Sq. yds. ii) between 50-100 Sq. yds. iii) between 101-150 Sq. yds. iv) between 151-200 Sq. yds. v) more than 200 Sq. yds. only through installation of meters by Licensee	-		-	Rs 240 per month Rs 350 Per month Rs. 460Per month Rs 640 per month Same as 1.2	
<b>2. Non-Domestic</b>	2.1.1 Non-Domestic (Low Tension) <sup>4</sup> -NDLT-I	Rs 35/kW/mth		-	520 paise/kWh	
	c) Up to 10 kW	Rs 35/kW/mth			545 paise/kWh	
	2.1.2 Non-Domestic Light/Power on 11 kV Single Delivery Point for Commercial Complexes-NDLT-II	Rs 35/kW/mth			463 paise/kWh	
	2.2 Mixed Load (High Tension) >100kW-MLHT <sup>5</sup> a) Supply on 11 kV b) Supply on LT (400 Volts)	-		150 200	470 Paise/kVAh <sup>6</sup> 540 Paise/kVAh	
<b>3. Industrial</b>	3.1.1 Small Industrial Power < 100 kW-SIP	Rs 35/kW/mth		-	485paise/kWh <sup>7</sup> or 424 paise/kVAh <sup>8</sup>	
	3.1.2 Industrial Power (SIP) on 11 kV Single Delivery Point for Group of SIP Consumers	Rs 35/kW/mth			412 paise/kWh <sup>7</sup> or 350 paise/kVAh <sup>8</sup>	
	3.2 Large Industrial Power>100 kW LIP a) Supply on 11 kV b) Supply on LT (400 Volts)	-		150 200	410 Paise/kVAh <sup>6</sup> 480 Paise/kVAh	
<b>4. Agriculture</b>		10		-	125 paise/kWh	

Category		Fixed Charges <sup>1</sup> (Rs./kW/month)	Demand Charge <sup>2</sup> (Rs./kVA A /month )	Energy Charges (Paise/kWh)
<b>5. Mushroom cultivation</b>		20	-	275 paise/kWh
<b>6. Public Lighting</b>		Maintenance Charges Rs/light point/month		Energy Charges
	6.1 Street Lighting	73	-	410 paise/kWh
	6.2 Signals & Blinkers	-	-	410 paise/kWh
<b>7. Railway Traction<sup>9</sup> (other than DMRC)</b>		Capacity-blockage-fixed charges <sup>10</sup>	150	375 paise/kVAh
<b>8. Delhi Metro Rail Corporation (DMRC) (220 kV) (66 kV)</b>		-	-	230 Paise/kVAh 230 Paise/kVAh
<b>9. Temporary Supply</b>	9.1 for a total period of a) less than 16 days  b) more than or equal to 16 days	50% of the relevant category  Same as that of relevant category	50% of relevant category 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 surcharge <sup>11</sup>
	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 relevant category	Same as that of relevant category	Same as that of relevant category with temporary surcharge
	9.5 for threshers a) during the threshing season for 30 days b) for extended period	Electricity tax of MCD: Rs. 150 per connection	- -	Flat rate of Rs. 3000  On pro-rata basis for each week or part thereof

- 1 Fixed 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 charges corresponding to excess demand in kW for such billing cycle.
- 2 Where 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
- 3 In case of co-operative societies having independent connection for common facilities through separate meter, energy charges for this connection shall be billed at highest slab tariff for domestic category.
- 4 Connection sanctioned for Dispensaries, Hospitals, Public Libraries and Schools run/aided by MCD/Government of NCT of Delhi and such other schools as recommended by Department of Education, Government of NCT of Delhi, Places of worship, Shelters for animals, Birds including, Go-sadans, Chaupals, Community halls in Rural Areas and J.J. Basties/Colonies, Recognised Centres for Welfare of Blind, Deaf and Dumb, Spastic Children and Physically Handicapped Persons, Working Women Hostels run/aided by MCD/Government, Cheshire Homes/Orphanages Charitable homes and Small Health Centres approved by Directorate of Health Services, Government of NCT of Delhi for providing Charitable Services only, electric crematoriums or any other similar establishment as may be approved by the Commission shall be billed at domestic category tariff, if such premises are being used exclusively for the specified purpose.  
  
Provided that all such connections, falling under the above establishments, which were being billed at domestic tariff by the erstwhile DVB shall be deemed to have Commission's approval.
- 5 Same as 4 above with 15% rebate. for supply on 11 kV
- 6 The incumbent shall be entitled for a rebate of 2.5% on the energy charges on 11 kV rates for availing 3 phase supply on 33/66 kV and 4% for supply on 220 kV.
- 7 Where kWh meters have been provided.
- 8 Where kVAh meters have been provided.
- 9 The above tariff is based on the supply being given through a single delivery and metering point at single voltage
- 10 Rs.  $1260 \times (2.97A + 5)$  where A is contract/maximum demand, whichever is higher, in MVA subject to a minimum of Rs. 25000
- 11 from the date of payment of their payable share in full towards electrification cost. Normal tariff available after one year

**Other Terms & Conditions of Tariff**

Category		Availability	Character of Service
1. Domestic	1.1 Domestic Lighting/Fan and Power (Single Delivery Point and Separate Delivery Points/Meters)	<p>i) Available to residential consumers, hostels of recognised/aided educational institutions, stair case lighting in residential flats, compound lighting, lifts &amp; water pumps etc. for drinking water supply and fire fighting equipment. 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 &amp; power.</p> <p>ii) Where separate meters, under different K. Nos., for domestic lighting/fan and domestic power, are in existence at the same premises, the billing shall be done under domestic category for total consumption of all such connections/meters taken together.</p> <p>iii) 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.</p>	AC 50 Hz, single phase, 230 Volts AC 50 Hz, three phase, 400 Volts for loads beyond 10 kW
	1.2 Domestic Lighting /Fan And Power on 11 kV single delivery point	Same as 1.1 (i) 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	<p>Available to all consumers having load (other than the industrial load) upto 100 kW for lighting, fan &amp; heating/cooling power appliances in all non-domestic establishments as defined below :</p> <p>i) hostels (other than those of recognised/aided educational institutes)</p> <p>ii) schools/colleges</p> <p>iii) auditoriums</p> <p>iv) hospitals, nursing homes/diagnostic centres</p> <p>v) railways (other than traction)</p> <p>vi) hotels and restaurants</p> <p>vii) cinemas</p> <p>viii) banks</p> <p>ix) petrol pumps</p> <p>x) all other establishments, i.e., shops, chemists, tailors, washing, dyeing etc. which do not come under the Factories Act.</p> <p>xi) cattle farms, fisheries, piggeries, poultry farms, floriculture, horticulture, plant nursery</p> <p>xii) farm houses being used for commercial activity</p> <p>xiii) any other category of consumers not specified/covered in any other category in this Schedule</p>	AC 50 Hz, single phase, 230 Volts up to 10 kW load. AC 50 Hz, 3 phase, 400 Volts for loads above 10 kW and upto 100 kW

Category		Availability	Character of Service
	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 a) Supply on 11 kV 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. Supply at extra high voltage (33 kV and more) may also be given	AC 50 Hz, 3 phase, 11 kV AC 50 Hz, 3 phase, 400 Volts
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 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) a) Supply on 11 kV 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 AC 50 Hz, 3 Phase, 400 Volts
4. Agriculture		Available for load up to 10 kW for tube wells for irrigation, threshing, and kutti-cutting in conjunction with pumping load for irrigation purposes and lighting load for bonafide use in Kothra.	AC 50 Hz, Single Phase, 230 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 <b>General Conditions</b> i) All incandescent lamps of 40 to 100 Watts except special lamps including fluorescent tubes shall be replaced after 1500 hours of service or earlier if burnt out. The special lamps including fluorescent tube, gas discharge or absorption lamps together with ancillary equipment shall be replaced at the cost of the consumer. ii) The replacement cost of stolen and broken incandescent lamps and fluorescent tubes including all types of special lamps mentioned above shall be borne by the consumer.	AC 50 Hz, Single Phase, 230 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, single phase, 220/66/33 kV AC 50 Hz, 3 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 kV
9.Temp	9.1(a) for less than 16 days	Available as temporary connection under the respective category	AC 50 Hz, single phase, 230 Volts
	9.1(b) for more than or equal to 16 days		AC 50 Hz, 3 phase, 400 Volts,

Category		Availability	Character of Service
	9.2 for residential cooperative group housing connections	Same as that of relevant category	AC 50 Hz, three phase, 11 kV
	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 and extendable upto days	
	9.4 for major construction projects	With loads more than 10 kW	
	9.5 for threshers	During the threshing season	