Delhi Electricity Regulatory Commission

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

Petition No. 54/2007

In the matter of:

Petition for approval of Aggregate Revenue Requirement and Multi Year Tariff for Wheeling and Retail Supply of Electricity for New Delhi Municipal Council for the Control Period of F.Y. 2007-08 to F.Y. 2010-2011.

AND

In the matter of:

The Secretary
New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110001.

Before

DELHI ELECTRICITY REGULATORY COMMISSION

Coram:

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

ORDER

DATE OF ORDER: 07TH MARCH, 2008

The Commission having deliberated upon the Multi Year Tariff Petition filed for the Control Period of F.Y. 2008-2011, alongwith the Business Plan for the said Control Period, and also the subsequent filings by the Petitioner during the course of the proceedings, and having considered the responses received from stakeholders, in exercise of the power vested under the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007, read with the provisions of the Electricity Act, 2003, hereby pass this Order signed, dated and issued on 07th day of March, 2008.

The Petitioner shall take immediate steps to implement the Order, so as to make the revised tariffs applicable from 01st April, 2008

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

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

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List of Abbreviations

ARR	Aggregate Revenue Requirement
A&G Expenses	Administrative and General Expenses
AAD	Advance Against Depreciation
ABT	Availability Based Tariff
AMR	Automated Meter Reading
APDRP	Accelerated Power Development and Reforms Program
AT&C	Aggregate Technical and Commercial
ATE	Appellate Tribunal for Electricity
BEST	Birhanmumbai Electric Supply Test
BIS	Bureau of Indian Standards
BPTA	Bulk Power Transmission Agreement
BRPL	BSES Rajdhani Power Limited
BST	Bulk Supply Tariff
BTPS	Badarpur Thermal Power Station
BYPL	BSES Yamuna Power Limited
CAGR	Compounded Annual Growth Rate
CCGT	Combined Cycle Gas Turbine
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CFL	Compact Fluorescent Lamp
CGS	Central Generating Stations
CoS	Cost of Supply
CPI	Consumer Price Index
CWIP	Capital Work in Progress
DA	Dearness Allowance
DA	Distribution Automation
DDA	Delhi Development Authority
DERA	Delhi Electricity Reform Act
DERC	Delhi Electricity Regulatory Commission
DISCOM	Distribution Companies
DMRC	Delhi Metro Rail Corporation
DPCL	Delhi Power Corporation Limited
DTL	Delhi Transco Limited
DVB	Delhi Vidyut Board
EHV	Extra High Voltage
EPS	Electric Power Survey
FBT	Fringe Benefit Tax
FPA	Fuel Price Adjustment

GFA	Gross Fixed Assets
GIS	Geographical Information System
GoNCTD	Government of National Capital Territory of Delhi
GTPS	Gas Turbine Power Station
IEGC	Indian Electricity Grid Code
HRA	House Rent Allowance
HT	High Tension
HVDS	High Voltage Distribution System
IDC	Interest During Construction
IPGCL	Indraprastha Power Generation Company Limited
LT	Low Tension
LVDS	Low Voltage Distribution System
MCD	Municipal Corporation of Delhi
MES	Military Engineering Service
MLHT	Mixed Load High Tension
MMC	Monthly Minimum Charge
MoP	Ministry of Power
MU	Million Units
MYT	Multi Year Tariff
NABL	National Accreditation Board for Testing and Calibration of Laboratories
NCT	National Capital Territory
NDLT	Non Domestic Low Tension
NDMC	New Delhi Municipal Corporation
NDPL	North Delhi Power Limited
NEP	National Electricity Policy
NGO	Non Government Organisation
NRPC	Northern Regional Power Committee
NTI	Non Tariff Income
NTP	National Tariff Policy
O&M	Operations and Maintenance
OCFA	Original Cost of Fixed Assets
PGCIL	Power Grid Corporation of India
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
PPCL	Pragati Power Corporation Limited
PTC	Power Trading Corporation
PWD	Public Works Department
R&M	Repair and Maintenance

REA	Regional Energy Account
RoCE	Return on Capital Employed
ROE	Return on Equity
RRB	Regulated Rate Base
RTI	Right to Information
RWA	Resident Welfare Associations
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SIP	Small Industrial Power
SLDC	State Load Despatch Center
SPD	Single Point Delivery
SPD	Separate Point Delivery
SPUs	State Power Utilities
ToD	Time of Day
TPS	Thermal Power Station
UI	Unscheduled Interchange
WACC	Weighted Average Cost of Capital
WC	Working Capital
WPI	Wholesale Price Index

A1: INTRODUCTION

1.1 This Order relates to the petition filed by the New Delhi Municipal Council (hereinafter referred to as 'NDMC' or the 'Petitioner') on 1 November, 2007 for approval of the Aggregate Revenue Requirement and the proposed Retail Supply Tariffs for the Control Period (FY08 to FY11) using Multi Year Tariff Principles specified in the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 notified on 30 May, 2007 and also for true-up of revenues and expenses incurred in FY07.

New Delhi Municipal Council (NDMC)

1.2 The New Delhi Municipal Council (NDMC) is a Municipal Council entrusted with the distribution of electricity to the consumers in the New Delhi area under Section 195 to 201 of the New Delhi Municipal Council Act 1994. The NDMC has the obligations of a Licensee under the Indian Electricity Act 1910 in respect of the New Delhi Area.

1.3 Under Section 200 of the New Delhi Municipal Council Act 1994, NDMC has the powers to fix charges to be levied for the electricity supplied by it, subject to the provisions of any law for the time being in force.

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

(a) With effect from 1 April, 2007, the responsibility for arranging supply of power in Delhi shall rest with the Distribution Companies in accordance with the provisions of the Electricity Act 2003 and also the National Electricity Policy. The DERC may initiate all measures well in advance so that necessary arrangements are put in place.

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

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

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

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

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

(a) The Unscheduled Interchange rate should be the same as prescribed by Central Electricity Regulatory Commission (CERC) as on 31 March, 2007. All the five Distribution Companies/ Agencies as well as DTL shall comply with the various provisions of the Indian Electricity Grid Code (IEGC)/ Regulations issued by CERC in this regard.

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

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

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

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

1.7 The Petitioner has filed its petition before the Delhi Electricity Regulatory Commission (hereinafter referred to as the 'DERC or the 'Commission') for determination of Wheeling and Retail Supply Tariffs for the Control Period FY08 to FY11 under Section 62, 64 and 86 of the Electricity Act, 2003, read with the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 (hereinafter referred to as the 'MYT Regulations, 2007').

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

1.9 The Commission has also reviewed the operational and financial performance of the Petitioner for FY07 and has done the truing-up for various parameters. It has finalised this Tariff Order based on the review and analysis of the past records, information, submissions, necessary clarifications submitted by the Petitioner and views expressed by various stakeholders.

Delhi Electricity Regulatory Commission

1.10 The Delhi Electricity Regulatory Commission (hereinafter referred to as 'DERC') was constituted by the GoNCTD on 3 March, 1999 and it became operational from 10 December, 1999.

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

Functions of the Commission

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

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

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

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

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

(e) to collect and publish data and forecasts;

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(ii) promotion of investment in electricity industry;

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

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

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

The Coordination Forum

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

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

Table 1: Meetings of Coordination Forum

Meeting	Date
1st Meeting	August 29, 2005
2nd Meeting	October 25, 2005
3rd Meeting	December 20, 2005
4th Meeting	January 20, 2006
5th Meeting	March 1, 2006

Meeting	Date
6th Meeting	April 17, 2006
7th Meeting	May 15, 2006
8th Meeting	June 14, 2006
9th Meeting	August 23, 2006
10th Meeting	September 28, 2006
11th Meeting	November 22, 2006
12th Meeting	January 25, 2007
13th Meeting	March 15, 2007
14th Meeting	April 16, 2007
15th Meeting	October 23, 2007
16th Meeting	November 23, 2007

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

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

S. No.	Name of the Project	Capacity Allocated to Delhi
1	Koldam Hydroelectric project of NTPC	83 MW
2	Tehri Hydroelectric project of THDC	95 MW
3	Dhauliganga HEP of NHPC	42 MW
4	Sewa-III HEP of NHPC	10 MW
5	Unchahar-III TPS of NTPC	24 MW
6	RAPP Unit 5 & 6 of NPC	50 MW
7	Parbati-II HEP of NHPC	65 MW
8	Bawana – CCGT Plant of IPGCL	1000 MW
9	Pragati Power-II Project-II of PPCL	330 MW
10	NCRTPP Dadri Extension of NTPC	880 MW
11	Tehri Pumped Storage Power Plant of THDC	600 MW
12	Kahalgaon Stage-II of NTPC	95 MW
13	Barh TPS of NTPC	155 MW
14	North Karanpura TPS of NTPC	157 MW
15	Koteshwar HEP of THDC	40 MW
16	Dulhasti HEP of NHPC	34 MW
	Total	**3660 MW**

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

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

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

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

Multi Year Tariff Framework

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

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

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

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

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

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

Multi Year Tariff Regulations

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

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

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

Filing of Tariff Petition for the Control Period

Filing of Petition

1.31 The Petitioner (NDMC) filed its petition for approval of Aggregate Revenue Requirement and Determination of Retail Supply Tariff for the Control Period, on 1 November 2007.

Acceptance of Petition

1.32 The Commission conducted a preliminary scrutiny of the petition submitted by the Petitioner and observed few discrepancies in the petition. The Commission also conducted a hearing on the admission of the petition on 7 November, 2007. Shri S. M. Ali, Director (Commercial & Power), NDMC along with their Consultants was present during the hearing. The Commission after hearing Petitioner issued an Order dated 8 November, 2007 for admission of the petition, and gave the following directions to the Petitioner:

"

(a) The Petitioner has not estimated the AT&C Loss as per the Commission's MYT Regulations for any of the years during the Control Period. Instead, the Petitioner has estimated Transmission and Distribution losses at 11.5% during the Control Period. The Petitioner has to draw up the petition in the manner prescribed in the Regulations and clearly indicate the AT&C Loss reduction as per the parameters of the Regulations. The AT&C Loss target should indicate some co-relation with the proposed Capital Expenditure and the Business Plan. In the petition, the Petitioner has stated that their Distribution system is fairly efficient and with the added capital expenditure they should be able to incrementally bring down the AT&C Loss Levels from what has been proposed in the said Petition.

(b) *The Petitioner has not proposed the base line and performance trajectory for all quality parameters as per the Regulations and therefore, directed to include the trajectory in the prescribed format so that the Petitioner is able to meet the performance standards as specified in the Electricity Supply Code of the Commission.*

(c) *The Petitioner has not submitted the details of the Business Plan in accordance with the provisions of Clause 8.3 of the Multi Year Tariff Regulations. The Business Plan, which has been incorporated in the Petition, is very nascent and does not contain any details with regard to the manner in which these plans have been drawn and it is also not associated with the load growth which the Petitioner is expecting over the Control Period. The Commission has already issued instructions to the Petitioner on the subject matter which has not been answered by the Petitioner so far. The Petitioner is directed to take appropriate steps for filing the requisite details with the Commission.*

(d) *After going through the Petition, it has also been observed that the Petitioner has not complied with the instructions and directives issued by the Commission in the previous Tariff Orders and continued with the same deficiencies in this Petition as well.*

(e) *It has also been observed that the Petitioner has neither submitted the audited financial statement for any of the previous years nor there is any provisional statement for the F.Y. 2006-07.Instead, the entire provisions are laid down on the foundation of Commission's Tariff Order for FY 2006-07.*

(f) *Sh. S. M. Ali, Director (Commercial), appearing on behalf of the Petitioner, has submitted that they are in the process of finalising the Double Entry Accounting and they would try to furnish all relevant data and submit the relevant accounts to the Commission shortly. The Commission has expressed its unhappiness and observed that it has been hearing about such commitments from the Petitioner over the last couple of years, but, nothing concrete has been furnished by the Petitioner so far. The Commission would at least like to see the Municipal Accounting Manual based upon which the Petitioner is preparing the financial statement.*

(g) *After going through the various heads of expenses, it has been observed that there are inconsistencies in the manner in which all the expenses have been allocated, especially with regard to the Civil Engineering Department and Administrative and General expenses. It has been observed that various components of A&G expenses have been incorrectly stated in the written statement and they do not match with the table given in the Petition. It has been further observed that certain expenses which should be capitalised, have been incorporated in Repair & Maintenance Expenses which should be appropriately dealt with.*

(h) *The Petitioner has also not specified the proposed tariff for each consumer category, slab-wise and voltage wise. Since, this Petition is not merely a Petition for Aggregate Revenue Requirement and is also a Petition for seeking tariff from this Commission, the Petitioner is expected to clearly indicate the exact tariff proposed from each category of consumers and the slab which would be given to various consumers. It is also observed that the Petitioner has not made any proposal based upon the cost of service model which would allocate the cost of business to each category of consumers based on voltage wise cost.*

(i) *It is further observed that the petition does not indicate the progressive reduction of cross subsidy and the application is at variance with the Regulations which stipulate that the proposed tariff should progressively reflect the cost of supply to each consumer category.*

(j) *The Commission would also like the Petitioner to segregate their ARR for the Wheeling Business and Retail Supply Business as per the formats under the Regulations.*

(k) *It has also been observed that the various formats which have been submitted along with the petition contain a lot of inconsistencies. The formats are not complete in all respects, there is data deficiency and the data given does not correlate with each other. Furthermore, the Petitioner hasnot furnished various formats prescribed under Regulations. It is also noticed that the Petitioner has neither prayed for an exemption from furnishing those data nor they have explained the absence of such data. The Petitioner should clearly indicate and furnish the entire data as prescribed in the formats in the Regulations. Wherever data is not available or is not pertinent to the petition, the Petitioner should make a specific mention thereto.*

(l) *The Commission has also observed that the Petition contains a figure of Rs. 33 Crore which is indicated as surplus in the Year 2006-07. However, it is observed that this figure has not been adequately reflected in their Petition and tariff figures have not been adjusted. In view of the available surplus, the Petitioner is directed to reconsider the figure in their Tariff calculation and accordingly, Table 22 of the Petition has to be corrected.*

(m) *It has been observed that the Petitioner has proposed calculation based upon market rent of various sub-stations, electricity offices and service stations. The Commission feels that this presumption is not as per the norms which have been practiced in this sector.*

(n) *It has also been observed that UI transactions which have resulted in revenue of approximately Rs. 110 Crore till the 27th week of 2007-08, have not been adequately indicated in the Petition as revenue available to the*

Petitioner. The Petitioner is directed to recalculate these revenues and project the amount accordingly for the Control Period.

(o) It has also been observed that the Petitioner has indicated total capital expenditure of approximately Rs.550 Crore without proposing any borrowing during the Control Period. In case the entire funding is to be given by the Government in the form of equity/ grant / debt etc., treatment of such capital expenditure will have to be reconsidered as per the Regulations."

1.33 In view of the above, the Petitioner was directed to submit the requisite information / details within seven days of issue of the Admission Order along with the draft public notice. The copy of the Admission Order dated 8 November 2007 is attached in Annexure I of this Order.

1.34 The Petitioner in response to the Order dated 8 November, 2007 made resubmissions on 23 November, 2007. The Commission observed that the Petitioner had not complied with many of the directions given in the Admission Order dated 8 November, 2007. The Petitioner later submitted revised estimates for the Control Period on 29 November, 2007.

Interaction with the Petitioner

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

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

1.37 As part of the discussions, the Commission provided an opportunity to the Petitioner to validate the data submitted for true-up and provide documentary evidence to substantiate its claims regarding various submissions. The Commission and the Petitioner also discussed key issues related to the petition, which included details of capital expenditure and capitalisation plan, AT&C loss reduction trajectory, Actual energy sales and projections for the Control Period, Actual revenue and projections for the Control Period etc.

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

Table 3: List of Correspondence with NDMC

S. No.	Date	Letter No.	Subject
1.	13.08.2007	AO(Comml.)/D-1246	Submission of Investment Plan for Multi Year Tariff
2.	18.9.2007	AO(Comml.)/D-1130	Submission of Five Year Investment Plan for the Multi Year Tariff
3.	31.10.2007	D-1185/AO9Com.)/07	Filing of Petition before DERC for approval of ARR and determination of multi year tariff 2007-2011.
4.	8.11.2007	AO(Comml.)2007/D-1192	Petition before DERC for approval of ARR and determination of Multi Year Tariff 2007-011.
5.	23.11.2007	D-509/PA/ Dir.Comml./Power	Approval of Aggregate Revenue Requirement (ARR) for the Multi Year Tariff 2007-11 and the determination of Retail Tariffs to be charged by New Delhi Municipal Council (NDMC) for the electricity.
6.	29.11.2007	D-514/PA/Dir.(Com.) /07	Approval of Aggregate Revenue Requirement (ARR) for the Multi Year Tariff 2007-11 and the determination of Retail Tariffs to be charged by New Delhi Municipal Council (NDMC) for the electricity.
7.	01.01.2008	AO(Comml.)/D-1130	Public Notice – Request for Public Response – Petition for Approval of Aggregate Revenue Requirement (ARR) & Determination of Multi Year Tariff for Distribution (Wheeling & Retail Supply Business) for FY 2007-08 to FY 2010-11.
8.	15.2.2008	D-133/EE(P)33KV	Submission of details of schemes/Plans cleared by CEA/
9.	19.2.2008	-	Approval of ARR and determination of MYT for FY08.
10.	5.3.2008	D-96/Comm./2008	Additional Information for finalization of MYT petition filed by NDMC

Public Hearing

1.39 The Petitioner published a Public Notice indicating the salient features of its petition, and inviting responses from the consumers and other stakeholders, in the following newspapers on 12 December, 2007:

(a) Times of India (English)

(b) Navbharat Times (Hindi)

(c) Daily Milap (Urdu)

1.40 The Petitioner also published a Corrigendum to the Public Notice in the following newspapers on 22 December, 2007.

(a) Times of India (English)

(b) Navbharat Times (Hindi)

(c) Daily Milap (Urdu)

1.41 Copies of the Public Notice in English, Hindi and Urdu are enclosed in Annexure II to this Order. Detailed copy of the petitions were also made available for purchase from the head-office of the Petitioner on any working day from 12 December, 2007 onwards, between 11 A.M. and 2 P.M. on payment of Rs 25/-. The notice specified the deadline of 7 January, 2008 for the receipt of responses/objections from the stakeholders. The complete copy of the petition was also put up on the website of the Commission, as well as that of the Petitioner requesting for comments of the stakeholders, thereon.

1.42 The Petitioner/ Commission received objections from 4 respondents, some of which were received after the deadline for receipt of comments. All parties, who had filed their objections /suggestions, were informed about the date, time and venue for presenting their case in the public hearing. The Petitioner replied to the comments received and submitted a copy of its replies to the Commission.

1.43 A public hearing was held at the Commission's Court Room on 5 February, 2008, to discuss the issues related to the petition filed by the Petitioner for determination of Retail Supply Tariff for the Control Period, and for truing-up of expenses for FY07.

1.44 The issues and concerns voiced by various stakeholders have been carefully examined by the Commission. The major issues discussed during the public hearing, through the objections raised by the respondents and the observations made by the Commission, have been summarized in Chapter 2.

Periodic Reviews

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

Layout of the Order

1.46 This Order is organised into five chapters:

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

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

(c) the third chapter details the process of true-up for FY07

(d) the fourth chapter analyses the Aggregate Revenue Requirement for the Control Period; and

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

1.47 The Order contains following Annexures, which are an integral part of the Tariff Order.

(a) Annexure I – Admission Order dated 8 November, 2007;

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

A2: RESPONSES FROM STAKEHOLDERS

Introduction

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

2.2 The Commission directed the Petitioner to make available copies of their MYT Petitions and issue a public notice inviting comments/objections from various stakeholders including the general public.

2.3 The following stakeholders filed written objections on the ARR and tariff petition. The issues raised along with the replies given to the objections by Petitioner are discussed in contextual sections that follow.

(i) Shri Satish Kumar, Delhi Metro Rail Corporation(DMRC)

(ii) Er. Sarabjit Roy, Defence Colony, New Delhi

(iii) Shri Bejon Misra, VOICE Society, Greater Kailash, New Delhi

(iv) Sh.Rajeev Chowdhury, CR Park, New Delhi

2.4 The Petitioner submitted its responses to the various comments/ objections and a public hearing was held in the Commission's office on 5 February, 2008 wherein respondents put forth their comments and objections before the Petitioner. The respondents were given an opportunity to be heard during the public hearing.

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

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

Power Purchase

Objections

2.7 The stakeholders submitted that there is no transparency in the process determining the power purchase cost incurred. It has been submitted that the Commission should make distribution licensees more accountable for the cost incurred towards power purchase.

2.8 Another stakeholder from the BRPL area submitted that though he was not a consumer of NDMC area but was still affected by the proposal of NDMC of selling power and making those disproportionate gains at the cost of consumers of other Discoms. He further, added that NDMC was making huge revenues on account of sale of surplus power and hence the average cost of power for NDMC ranges between Rs. 1.20 to 1.74 per unit whereas other Discoms are required to procure power at over Rs. 3.00 per unit resulting in reduced ARR of NDMC.

2.9 He prayed to the Commission to revisit the allocations made to NDMC and to develop a suitable mechanism so that the over 30 lakh consumers residing in other areas of Delhi are not unfairly burdened to provide subsidy to NDMC and its consumers.

Petitioner's Submission

2.10 The Petitioner concurred with the stakeholders' submission that the power purchase expenses constitute the major part in the ARR of any distribution utility and it should be more transparent and authentic.

2.11 The Petitioner has further submitted that it has taken utmost care and transparency in proposing and determining power purchase expenses during the Control Period. The Petitioner has submitted that the power purchase expenses have been based on the actual bills raised by the NTPC for power purchase during last 7 months since April, 2007.

2.12 The Petitioner has further submitted that it used to pay all power purchase bills of the NTPC regularly and before the due date to avoid load shedding and maintain reliable electricity supply in its area. The Petitioner has further submitted that the power purchase expenses as proposed in the petition comes under the Commission's purview to scrutinize the same during the processing of the Tariff Order for the Control Period.

2.13 The Petitioner further submitted that the Electricity Department of NDMC has the onerous responsibility of providing reliable power supply in its area having the most important buildings/institutes like Parliament House, Rashtrapati Bhawan, P.M. House, Supreme Court, High Court and VVIP Residence, Major Hospitals like AIIMS, Foreign Missions and other commercial Houses.

2.14 Regarding query related to the earnings on account of UI transaction and sale of surplus power, the Petitioner submitted that though they have received earnings on account of sale of surplus power, it remains largely on paper as only a small part of it has been realized. The Petitioner further submitted that they are not getting payments against receivables even from Delhi Discoms which is affecting their business.

Commission's View

2.15 The Commission recognises the importance of power purchase expenses in the ARR of a distribution utility. Therefore, the Commission has taken due caution while projecting power purchase cost for the Control Period.

2.16 The Commission has also noted the concern of the stakeholder of other Discom area regarding the allocation to NDMC and its adverse affect on the power purchase cost of other Discoms which lead to high tariff for consumers of those Discoms. The Commission has, however, dealt the matter separately and taken a view on a petition filed by NDMC regarding its reallocation of PPAs in the Order dated 7 March, 2008.

Rationalization of Tariff

Objections

2.17 The stakeholders submitted that there should be some degree of justification for the tariff being charged from various categories of consumers. Consumer should not be made liable to pay higher than justifiable tariff. Stake holders have submitted that no tariff increase should be permitted at this point of time for the Control Period.

Petitioner's Submission

2.18 The Petitioner has submitted that it is still adopting the same tariff schedule as charged by the erstwhile Delhi Vidyut Board and no revision of retail tariff has been taken since 2001,when the tariff for the erstwhile DVB was last revised.

2.19 The Petitioner has requested before the Commission to consider the tariff hike proposal in view of growing economy and demand of electricity with time, capital expenditure required to maintain reliable supply in the most important area of Delhi under NDMC region and the commercial principles under which any organization runs its business.

Commission's View

2.20 The Commission has analyzed the aggregate revenue requirement (ARR) of the Petitioner and determined the tariff applicable to various consumer categories of NDMC area after detailed analysis of the Petitioner's ARR and applying prudence checks. The Commission has been continuously making efforts to introduce various tariff rationalization measures.

AT&C Losses

Objections

2.21 The stakeholders have submitted that transmission and distribution losses for the Petitioner should be minimized and made comparable to International standards. The stakeholders have submitted that rather than increasing tariff, focus should be on reduction of T&D losses, prevention of electricity theft and collection of arrears.

Petitioner's Submission

2.22 The Petitioner has submitted that for the last two years, the collection efficiency has been estimated at approximately 98-99%. The Petitioner has reiterated that the commercial losses may account to 0.5%-1.5% of total consumption on account of certain defective meters and commercial losses by way of theft are negligible.

2.23 The Petitioner has submitted that there are practical constraints in further reducing the technical losses which are beyond the control of the Petitioner. However, in light of the capital expenditure proposed, the Petitioner has proposed reduction of technical losses to the extent of 1% during the Control Period.

Commission's View

2.24 The AT&C loss targets have been fixed in the Regulations based on the past achievements on loss reduction, capital expenditure programs, review of the consumer mix of Delhi, metering status, etc. The Commission has followed the AT&C loss reduction targets as per the provisions of MYT Regulations, 2007.

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

Renewable Energy and Energy Conservation

Objections

2.26 The stakeholders have submitted that renewable energy should be used to counter the environment disorders and the high cost of generation of energy due to increase in the cost of petroleum products and coal.

2.27 The stakeholders have also submitted that the Commission should mandate the distribution companies to educate the consumers on energy conservation and use of energy efficient gadgets and equipments including non-conventional energy sources.

Petitioner's Submission

2.28 The Petitioner has not given any specific response to the use of renewable energy in its power purchase.

Commission's View

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

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

2.31 The Commission also desires the Petitioner to promote conservation of energy, energy audit and efficient use of energy in its area of supply. Sufficient measures should be initiated by the Petitioner to educate the consumers about different practices for conserving energy and encouraging optimum use of energy. The consumer should be educated by organising consumer meets, lectures, seminars, workshops etc. so as to bring down the energy consumption and power purchase requirement of the Petitioner. Use of energy saving devices like CFLs and electronic chokes should be encouraged and different schemes should be brought out by the Petitioner to promote their use and adoption by the consumers. Energy efficient products with higher star rating certified by the Bureau of Energy Efficiency should be encouraged for use by consumers which would ensure minimum electricity consumption and thereby, benefiting the consumer and also helping the energy balance. Bureau of Energy Efficiency has come out with the energy labelling of energy guzzling products like air-conditioner, refrigerators, electric water heaters etc. The Petitioner should take sufficient measures in making the general public conversant about these energy labelled products, the use of which will go a long way in optimising overall energy consumption and reduction in power purchase requirement of the Petitioner. The consumers should be inculcated with the habits of energy saving through public awareness programs.

Tariff for DMRC

Objections

2.32 DMRC has submitted that the principle adopted by the Commission in its earlier Tariff Orders for determining tariff for DMRC must be retained and DMRC's tariff should be based on the Petitioner's input cost i.e. the cost at which electricity is available to the Petitioner at the interconnection points of Delhi Transco Limited. Accordingly, the tariff for DMRC are not dependent on the other expenses of the Petitioner namely, other than the input costs mentioned above or any other issue of cross subsidization of other classes of consumers. In accordance with above, DMRC has always been treated as separate category of consumer in tariff determination process.

Petitioner's Submission

2.33 The Petitioner has submitted that it has not proposed any tariff for DMRC which at present is not an existing consumer of the NDMC. In case DMRC becomes a consumer of NDMC at a later point of time during the Control Period, the Petitioner has requested the Commission to take an independent view of the matter keeping in view the final commissioning of DMRC's projects in the area of NDMC.

Commission's View

2.34 The Commission acknowledges that DMRC is an essential service being serviced by different distribution licensees. Regarding application of tariff, the Commission is of the view that the tariff for DMRC should be made applicable on cost to serve principle in line with the National Tariff Policy as any cross subsidization of DMRC tariff would only result in the burden on other consumer categories.

Inconsistency in the Petition

Objections

2.35 The stakeholders have submitted that there are gross anomalies in the MYT petition filed by the Petitioner and suggested for re-examination of the NDMC petition. It has been submitted that 25% of the ARR is comprises of other expenses including interest and depreciation. The stake holders have submitted that there is still room for improvement through efficient handling of various dimensions of customer care and theft of electricity.

Petitioner's Submission

2.36 The Petitioner has submitted that no loans are outstanding against NDMC during FY06 and FY07. No fresh borrowing has been made during FY08. The Petitioner has submitted that no borrowing has been proposed during the rest of the Control Period. Therefore, no interest expenditure has been considered during the Control Period. The Petitioner has submitted that entire funding of the capital expenditure is done through the internal accruals of the NDMC and this would strictly be treated as debt on which interest would be paid by the NDMC Electricity Department.

2.37 Regarding other expenses, the Petitioner has submitted that ARR petition and the tariff proposal as filed by it is under the Commission's prudence check to scrutinize the same during the processing of the tariff order for the Control Period.

Commission's View

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

2.39 The Commission has examined the petition submitted by the Petitioner and has asked for clarification and detailed submissions. In case, where data was not available or could not be made available by the Petitioner, the Commission has made reasonable assumptions and allowed the various expenses only after the detailed analysis of the ARR of the Petitioner and after applying prudence checks.

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

Cross Subsidy

Objections

2.41 The stakeholders have submitted that there should be uniform tariff for all categories of consumers. In case some concessions have to be given to consumer below the poverty line, the regulator must insist on the names of such consumers and make them public for scrutiny.

Petitioner's Submission

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

Commission's View

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

A3: TRUING UP OF EXPENSES FOR FY07

Introduction

3.1 The Commission had approved the Annual Revenue Requirement of NDMC for FY07 and determined the applicable Retail Supply Tariffs (RST) for the year in its Tariff Order issued on December 26, 2006. The Tariff Order was based on the provisional data submitted by the Petitioner for costs to be incurred and revenues likely to be generated during FY07.

3.2 The Petitioner submitted its prayer for truing up cost and revenue elements approved for FY07, as part of the MYT Petition. Despite certain discrepancies and information gaps in the petition, the Commission admitted the same in order to expedite the tariff determination process. The Commission issued a deficiency note to NDMC highlighting the shortcomings in the petition and directed it to submit clarifications and further information.

3.3 The Petitioner subsequently submitted various documents and responded to the queries raised by the Commission during detailed analysis of the petition. The Commission has considered various submissions made by the Petitioner during analysis of the petition for the purpose of true-up for various components of ARR to determine the revenue requirement of FY07.

3.4 The Commission had to face several difficulties in this process on account of the fact that the provisional/audited accounts for FY07 was not available and that NDMC has not been maintaining separate records/accounts for electricity as a separate entity for supplying electricity in NDMC area, as it is considered as a department of NDMC and is not a separate commercial undertaking. Due to non-availability of certain critical data, the Commission was not in a position to carry out detailed analysis of various elements of expenses and revenue as the Commission has been doing while processing the ARR and Tariff Petitions of other Utilities.

3.5 The Commission has discussed the details of critical data gaps under the relevant heads of expenditure. Further, the Commission also asked the Petitioner to provide the details of actual expenses and revenue for FY07. The Petitioner has submitted the actual details of sales, power purchase and capital investment for FY07.

3.6 **The Petitioner has, however, not submitted the details of actual Employee expenses, Administration & General expenses, Repairs & Maintenance expenses, slab-wise sales and revenue, revenue from various components of tariff etc. for FY07. With these constraints, the Commission has analysed all the components of ARR as discussed in subsequent sections.**

3.7 The table below shows the ARR approved by the Commission in the Tariff Order for FY07 and the revised estimates submitted by the Petitioner for truing up of expenses for FY07.

Table 4: Aggregate Revenue Requirement for FY07 (Rs Cr.)

Particulars	Approved in T.O. FY07	Revised Estimates (MYT Petition)
A. Expenses		
Power Purchase Expenses	329.23	329.23
Employee Cost	48.71	48.71
R & M Expenses	16.26	16.35
Administration & General Expenses	0.59	11.46
Admissible Expenses	10.95	0.00*
Depreciation	12.07	12.07
Interest & Finance Charges	0.00	0.00
Administrative Deptt. & Civil Engg. Deptt	45.37	45.37
Total Expenses	**463.20**	**463.20**
B. Return on Capital Base	11.98	11.98
C. Non Tariff Income	5.36	8.80
Total Revenue Requirement (A+B-C)	**469.81**	**466.38**

** Included in A&G and R&M expenses*

3.8 Based on the Tariff Order dated 26 December, 2006 for FY07, the information provided and Commission's analysis, the Commission has trued up all elements of ARR based on the revised estimates of expenses and revenue for FY07 of NDMC after ensuring that the expenses satisfy the test of reasonable prudence.

3.9 **Power Purchase Cost**: The Petitioner has submitted the revised estimates of Power Purchase Cost for FY07 which is same as that approved by the Commission in the Tariff Order for FY07. For truing up the power purchase expenses for FY07, the Commission has analysed the energy sale to NDMC from DTL in FY07 and the revenue realised by DTL from NDMC in FY07 on account of bulk supply of electricity. The Commission has observed that the energy sale to NDMC from DTL in FY07 was 1178 MU and the total revenue collected by DTL from NDMC on account of sale power is Rs. 332.68 Cr in FY07.

3.10 **O&M Cost:** The Commission has analyzed the revised estimates submitted by the Petitioner for O&M expenses (Employee expenses, A&G expenses, Other Admissible expenses and R&M expenses) and has observed it to be same as that approved by the Commission in the Tariff Order for FY07. Since the audited/provisional accounts of NDMC for FY07 are not available and the Petitioner has not submitted the actual O&M expenses for FY07, the Commission provisionally approves the amount of O&M expenses approved by it in the Tariff Order for FY07 i.e. Rs. 81.94 Cr. The Commission would like to highlight that, the Petitioner has not taken any approval on account of increase in O&M expenses in any of the past years. ***The Commission also highlights that the Petitioner has not complied with any of the Directives issued by the Commission on O&M expenses in the Tariff Order for FY07.*** Thus, the Commission caps the O&M expenses for FY07 at Rs. 81.94 Cr and shall true-up the same only if the actual O&M expenses as per audited accounts of FY07 are less than Rs. 81.94 Cr.

3.11 **Capital Expenditure:** The Commission has observed that there are discrepancies in the various submissions made by the Petitioner. In the initial petition dated 1 November, 2007 the capital expenditure indicated for FY07 was Rs. 11.03 Cr excluding the replacement works of Rs. 1.99 Cr i.e. a total capital expenditure of Rs. 13.02 Cr. Whereas in the submission made on 5 March, 2008, the Petitioner has submitted total capital expenditure for FY07 as Rs. 18.15 Cr (including the replacement works of Rs. 2.18 Cr). However, no justification has been provided for the revision of the amount of capital expenditure, in spite of the fact that the initial petition was filed 7 months after the closure of FY07. The Commission has considered that the latest submission as the final one for provisionally approving the capital expenditure for FY07. The Commission directs the Petitioner to submit the scheme wise details of the capital schemes carried out in FY07 by 30 September, 2008.

Table 5: Truing up of Capital Investment & Asset Capitalisation for FY07 (Rs Cr)

Particulars	Tariff Order for FY07	Revised Estimates	Now Approved
Capital Investment	33.82	18.15	18.15
Asset Capitalisation	15.57	15.57	15.57

3.12 **Depreciation:** The Commission has observed that the depreciation claimed by the Petitioner for FY07, as per revised estimates is same as that approved by the Commission in the Tariff Order for FY07. For truing up the depreciation expense for FY07, the Commission has considered the opening level of assets for FY07 and the capitalisation of assets during FY07. The Summary of depreciation claimed by the Petitioner and now approved by the Commission is shown below.

Table 6: Fixed Assets & Depreciation for FY07 (Rs Cr)

Particulars	Revised Estimates (MYT Petition)	Now Approved
Opening Value of Fixed Assets	327.57	327.57
Opening CWIP	19.98	19.98
Capital Investment	33.82	18.15
Asset Capitalisation	15.57	15.57
Closing CWIP	38.24	22.56
Closing Value of Fixed Assets	343.14	343.14
Depreciation Rate (%)	3.60%	3.60%
Depreciation (Rs Cr)	**12.07**	**12.07**

3.13 **Interest & Financing Charges:** The Petitioner during the technical validation session has clarified that the entire capital expenditure carried out in FY07 was financed through internal resources and there was no borrowing from the market. The

Petitioner has submitted no expenditure towards interest & financing. The Commission, has, thus considered the funding of capital investment in FY07 from un-utilised depreciation and internal accruals. Therefore, no interest expenditure is considered for FY07.

3.14 **Administrative Deptt. & Civil Engg. Deptt Expenses:** The Commission has analyzed the revised estimates submitted by the Petitioner towards Administrative Deptt. & Civil Engg. Deptt Expenses and has observed it to be same as that approved by the Commission in the Tariff Order for FY07. Since the audited/provisional accounts of NDMC for FY07 are not available and the Petitioner has not submitted the actual amount towards Administrative Deptt. & Civil Engg. Deptt Expenses for FY07, the Commission provisionally approves the amount approved by it in the Tariff Order for FY07 i.e. Rs. 45.37 Cr.

3.15 The Commission would like to highlight that ***the Petitioner has not complied with the directive issued by the Commission to separately account the cost of works carried out by civil engineering department for electricity department and provide the complete details of such works and associated costs at the end of the year bringing out clearly the percentage expenditure of Civil Engineering Department booked to electricity department vis-à-vis all the other departments***. Thus, the Commission caps the expenses towards Administrative Deptt. & Civil Engg. Deptt for FY07 at Rs. 45.37 Cr and shall true-up the same only if the actual expenses as per audited accounts of FY07 are less than Rs. 45.37 Cr.

3.16 **Return:** The Commission has estimated the return based on the methodology adopted by the Commission in its previous tariff orders in accordance with the Sixth Schedule of Electricity Supply Act, 1948 @ 16% on net capital base. The Summary of the return now approved by the Commission is shown below.

Table 7: Capital Base and Reasonable Return for FY07 (Rs Cr.)

Particulars	Revised Estimates (MYT Petition)	Now Approved
Original cost of fixed assets	327.57	327.57
Opening WIP	2.69	19.98
Working Capital	8.18	8.18
Sub Total	**338.44**	**355.74**
Accumulated Depreciation	239.25	239.25
Outstanding Loan	0.00	0.00
Security Deposits	24.34	24.34
Sub-total	**263.59**	**263.59**
Net Capital Base	**74.85**	**92.15**
Total Reasonable Return	**11.98**	**14.74**

3.17 **Non Tariff Income (NTI):** The Petitioner has submitted the revised estimates of NTI for FY07 as Rs. 8.80 Cr as compared to Rs. 5.36 Cr approved by the Commission for

FY07 in the Tariff Order of FY07. Since the audited accounts of NDMC for FY07 are not available the Commission provisionally approves Rs. 8.80 Cr as NTI for FY07.

3.18 The Summary of Aggregate Revenue Requirement now approved by the Commission for FY07 is shown below.

Table 8: Aggregate Revenue Requirement for FY07 (Rs Cr.)

Particulars	Approved in T.O. FY07	Revised Estimates (MYT Petition)	Now Approved
A. Expenses			
Power Purchase Expenses	329.23	329.23	332.68
Employee Cost	48.71	48.71	48.71
R & M Expenses	16.26	16.35	16.35
Administration & General Expenses	0.60	11.46	11.46
Admissible Expenses	10.95	0.00*	0.00*
Depreciation	12.07	12.07	12.07
Interest & Finance Charges	0.00	0.00	0.00
Administrative Deptt. & Civil Engg. Deptt	45.37	45.37	45.37
Total Expenses	**463.20**	**463.20**	**466.65**
B. Return on Capital Base	11.98	11.98	14.74
C. Non Tariff Income	5.36	8.80	8.80
Total Revenue Requirement (A+B-C)	**469.81**	**466.38**	**472.59**

** Included in A&G and R&M expenses*

3.19 **Revenue from Tariff & Charges:** The Petitioner has submitted the revised estimates of revenue realised from sale of power in FY07 as Rs. 494.48 Cr as compared to Rs. 492.48 Cr approved by the Commission for FY07 in the Tariff Order of FY07. The Commission has analysed the submission made by the Petitioner and has observed that the Petitioner did not submit the slab wise consumption and revenue of each category in FY07. The Commission directed the Petitioner to submit the same to verify the revenue realised by the Petitioner if FY07. The Petitioner, however, failed to submit the same. The Commission, thus, in absence of audited accounts and proper information from the Petitioner has considered the revenue realised from sale of power in FY07 as Rs. 494.48 Cr.

3.20 The summary of revenue gap/surplus in FY07 is shown below.

Table 9: Revenue Gap/ Surplus in FY07 (Rs Cr.)

Particulars	Approved in T.O. FY07	Revised Estimates (MYT Petition)	Now Approved
Aggregate Revenue Requirement	469.81	466.38	472.59
Revenue Realised	492.48	494.48	494.48
Revenue (Gap)/ Surplus	**22.67**	**28.10**	**21.89**

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

Introduction

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

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

4.3 The Commission had to face several difficulties in this process on account of the fact that the provisional/audited accounts for FY07 was not available and that NDMC has not been maintaining separate records/accounts for electricity as the entity for supply of electricity in NDMC area, as it is considered as a department of NDMC and is not a separate commercial undertaking. Due to non-availability of certain critical data, the Commission was not in a position to carry out detailed analysis of various elements of expenses and revenue as FY07 is the base year for the Control Period.

4.4 The Commission has discussed the details of critical data gaps under the relevant head of expenditure. Further, the Commission also directed the Petitioner to provide the relevant information to bridge the gaps in the Petition. The Petitioner has submitted its replies to the queries raised by the Commission, however, none were found to be satisfactory and complete. With these constraints, the Commission has analysed all the components of ARR as discussed in subsequent sections.

4.5 The Commission while approving the aggregate revenue requirement has not divided the distribution business of the Petitioner into Wheeling and Retail Supply due non-availability of sufficient information from the Petitioner. The Petitioner has not segregated its accounts for electricity business, thus, it was not possible for the Commission at this stage to segregate the distribution business of the Petitioner into Wheeling and Retail Supply.

4.6 The Commission is required to specify wheeling charges for open access consumers, however, as per the section 42 (3) of Electricity Act 2003, open access is not permitted in the area where local authority is engaged in the business of distribution of electricity. Thus, the requirement of specifying wheeling charges does not arise in case of the Petitioner.

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

Table 10: Summary of MYT Petition (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Power Purchase Cost	622.98	652.03	683.29	716.96
Other Expenditure	204.79	219.29	240.14	265.37
Total Expenditure	**827.77**	**871.31**	**923.43**	**982.32**
Return on Capital Employed	21.78	30.05	41.07	47.57
Less: Other Income	3.09	3.22	3.35	3.48
Aggregate Revenue Requirement	**846.46**	**898.14**	**961.15**	**1026.41**
Revenue from Tariff & Charges	553.22	580.13	608.74	639.16
Revenue Surplus/ (Deficit)	(293.24)	(318.01)	(352.41)	(387.25)

4.8 The Petitioner submitted the revised ARR for the Control Period vide letter dated 19 February, 2008. The summary of the same is shown below.

Table 11: Summary of MYT Petition (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Power Purchase Cost	622.98	638.15	653.92	670.33
Other Expenditure	175.72	189.00	208.59	232.51
Total Expenditure	**798.70**	**827.15**	**862.52**	**902.84**
Return on Capital Employed	8.90	16.13	25.82	31.50
Less: Other Income	3.09	3.22	3.35	3.48
Aggregate Revenue Requirement	**804.51**	**840.06**	**884.99**	**930.85**
Revenue from Tariff & Charges	553.22	580.13	608.74	639.16
Revenue from Sale of Surplus Power	190.00	189.25	187.64	184.97
Total Income	743.22	769.39	796.38	824.13
Revenue Surplus/ (Deficit)	(61.29)	(70.68)	(88.61)	(106.72)

4.9 This chapter contains detailed analysis of the petition submitted by the Petitioner and various parameters approved by the Commission for determination of ARR for the Control Period.

Base Year

4.10 For the purpose of projecting the expenses and other elements of the ARR for the Control Period, the Commission has considered FY07 as the base year. The Commission would like to highlight that since the audited accounts for FY07 are not available the Commission has approved provisional values is for various expenses which shall be trued-up if the amount approved is higher than the actual as per audited accounts. This may also lead to the revision of the base value of certain expenses and thereby revision in the value approved for the Control Period.

SALES FORECAST

Petitioner's Submission

4.11 The Petitioner has submitted that the estimated sale for FY07 is 1013 MU based on the actual monthly sales trend in FY06 and has projected the sales of 1060 MU, 1109 MU,1162 MU and 1218 MU for FY08, FY09, FY10 and FY11 respectively.

4.12 The Petitioner has adopted the CAGR methodology to arrive at the projections for the total sales during the Control Period. The Petitioner has considered 3-year compounded annual growth rate of approximately 3%, 5% and 5% for the period FY 2007-11 for projecting the sales on account of domestic, non-domestic and Mixed Load category consumers respectively. Overall, the Petitioner has proposed the growth rate of 4.47% per annum for the total sales during the Control Period.

4.13 The estimated category-wise sales for FY07 and the sales projected by the Petitioner for the Control Period are shown below:

Table 12: Petitioner's Sales Forecast (MU)

Category wise Sales	Estimated	Projected			
Category	**FY07**	**FY08**	**FY09**	**FY10**	**FY11**
Domestic					
Single Delivery Point	63.18	68.53	74.34	80.65	87.48
Separate Delivery Point	123.77	125.83	127.92	130.05	132.21
Domestic Power	20.95	20.12	19.32	18.56	17.82
Total Domestic	**207.90**	**214.49**	**221.59**	**229.25**	**237.52**
Non Domestic					
Single Phase	54.78	55.29	55.81	56.33	56.85
Three Phase	183.87	196.59	210.20	224.74	240.30
Total Non Domestic	**238.65**	**251.88**	**266.01**	**281.07**	**297.15**
Mixed Load					
Supply at 11 KV (HT)	344.55	366.92	390.75	416.12	443.14
Supply on LT where supply is given from NDMC sub station	6.33	6.17	6.01	5.86	5.71
Supply on LT where applicant provides built up space for sub station	203.48	207.95	212.52	217.20	221.97
Total Mixed Load	**554.36**	**581.05**	**609.29**	**639.18**	**670.82**
Small Industrial Power	**0.33**	**0.34**	**0.36**	**0.38**	**0.39**
Public Lighting	**7.97**	**8.13**	**8.30**	**8.48**	**8.65**
Others	**3.79**	**3.94**	**3.94**	**3.94**	**3.94**
Sum Total	**1013.01**	**1059.83**	**1109.48**	**1162.29**	**1218.48**

Commission's Analysis

4.14 The Commission has decided to forecast energy sales for the Control Period by considering the past trends and projections made by the Petitioner.

4.15 For deciding the appropriate growth rate to forecast the energy sales for a particular category, the Commission has analysed the year-on-year variations in sales as well as the short term and long term trends in sales. The Commission has computed the CAGR for 2 to 4 years duration. The Commission has, thereafter, considered the 4 years CAGR for projecting sales for the Control Period taking into account consumption trends in recent period.

4.16 The Commission has also considered energy sales to DMRC in FY11 based on the estimates submitted by DMRC vide letter No. DMRC\Elect\Plg\ARR\2007\Pt.II dated 28 December, 2007.

4.17 The Commission has approved the energy sales to each consumer category as detailed below in the table:

Table 13: Summary of Approved sales for the Control Period (MU)

Category wise Sales	Actual	Projected			
Category	**FY07**	**FY08**	**FY09**	**FY10**	**FY11**
Domestic	**207.90**	**211.71**	**215.59**	**219.54**	**223.56**
Single Delivery Point	63.18	62.17	63.31	64.47	65.65
Separate Delivery Point	123.77	127.53	129.87	132.25	134.67
Domestic Power	20.95	22.01	22.41	22.82	23.24
Non Domestic	**238.65**	**248.07**	**257.86**	**268.04**	**278.62**
Single Phase	54.78	58.10	60.39	62.77	65.25
Three Phase	183.87	189.98	197.47	205.27	213.37
Mixed Load	**554.36**	**575.27**	**596.97**	**619.49**	**642.86**
Supply at 11 KV (HT)	344.55	360.82	374.43	388.55	403.21
Supply on LT where supply is given from NDMC sub station	6.33	7.11	7.38	7.66	7.95
Supply on LT where applicant provides built up space for sub station	203.48	207.34	215.17	223.28	231.70
Small Industrial Power	**0.33**	**0.34**	**0.35**	**0.35**	**0.36**
Public Lighting	**7.97**	**8.10**	**8.23**	**8.36**	**8.49**
Others	**3.79**	**3.89**	**3.99**	**4.09**	**4.20**
DMRC	**0.00**	**0.00**	**0.00**	**0.00**	**68.00**
Sum Total	**1013.01**	**1,047.38**	**1,082.98**	**1,119.87**	**1,226.08**

AT& C Losses

Petitioner's Submission

4.18 In the MYT Petition, the Petitioner has not submitted any AT&C loss reduction trajectory. Instead, the Petitioner has submitted before the Commission to consider the AT&C losses at 11.5% (considering 100% collection efficiency) which is same as that considered for FY07 and not the loss level target as mentioned in the Commission's MYT Regulations, 2007.

4.19 The Petitioner has submitted that lot of efforts have been made towards strengthening & refurbishment of system in the past and maintaining the AT&C loss level at 11.50% and there are practical constraints at present beyond the reasonable control of the Petitioner and reducing the technical losses further is almost not possible.

4.20 Subsequently, in response to the observations made by the Commission in the Order dated 8 November, 2007; the Petitioner has proposed AT&C loss reduction of 0.25% every year for the Control Period and submitted revised AT&C loss reduction trajectory as shown below in the table.

Table 14: AT&C Loss Reduction Trajectory Proposed by the Petitioner

Particular	FY08	FY09	FY10	FY11
Opening AT&C losses	11.50%	11.25%	11.00%	10.75%
A T & C loss Reduction over previous year	0.25%	0.25%	0.25%	0.25%
AT & C loss target	11.25%	11.00%	10.75%	10.50%
Collection Efficiency	**100%**	**100%**	**100%**	**100%**

Commission's Analysis

4.21 The Commission highlights that the AT&C loss reduction targets for the Petitioner as specified in the MYT Regulation, 2007 have been fixed considering the past achievements on loss reduction, capital expenditure programs, review of the consumer mix of Delhi, metering status, etc.

4.22 The Commission is of the view that the replies submitted by the Petitioner in regard to its deviation from the MYT Regulations, 2007 are not satisfactory and that the MYT Regulations, 2007 are binding on the Petitioner. The Commission has, thus, considered 1.50% reduction in AT&C losses (from 11.50% in FY07 to 10.00% in FY11) during the Control Period. The Commission has also considered reduction of 25% of the total AT&C loss reduction target in each year of the Control Period. As specified in the MYT Regulation, 2007; the Petitioner has to reduce a minimum of 20% of the total AT&C loss reduction target for the Control Period in any year of the Control Period.

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

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

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

(c) Third year of the Control Period: The Petitioner shall be eligible for an incentive if the cumulative value of loss reduction in that year and in the previous two years is over 75%. Any under recovery in the revenue realised, if the AT&C loss reduction in the third year of the Control Period is below 20% and that the cumulative value of loss reduction in that year and in the previous two years is below 70%, shall be to the account of the Petitioner. The Petitioner shall not be eligible for any incentive or penalty if the cumulative AT&C loss reduction in the first, second and third year of the Control Period is between 70% and 75%.

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

4.24 Further, the Commission has assumed collection efficiency of 100% for current dues for the entire Control Period, as submitted by the Petitioner, and has derived distribution losses of 11.13%, 10.75%, 10.38% and 10.00% for the FY08, FY09, FY10 and FY11 respectively. The AT&C loss reduction and distribution loss reduction trajectory approved by the Commission are summarised in the table below:

Table 15: Commission Approved AT&C and Distribution Loss Reduction Trajectory

Particular	FY08	FY09	FY10	FY11
Opening AT&C losses	11.50%	11.13%	10.75%	10.38%
A T & C loss Reduction over previous year	0.38%	0.38%	0.38%	0.38%
AT & C loss target	11.13%	10.75%	10.38%	10.00%
Distribution loss target	11.13%	10.75%	10.38%	10.00%
Collection Efficiency	**100%**	**100%**	**100%**	**100%**

Energy Requirement

Petitioner's Submission

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

Table 16: Petitioner's estimate for Energy Requirement

Particular	FY08	FY09	FY10	FY11
Sales (MU)	1059.83	1109.48	1162.29	1218.48
Distribution losses (%)	11.25%	11.00%	10.75%	10.50%
Energy Input (MU) Requirement	**1194.18**	**1246.61**	**1302.29**	**1361.43**

Commission's Analysis

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

Table 17: Commission approved Power Requirement

Particular	FY08	FY09	FY10	FY11
Sales (MU)	1047.38	1082.98	1119.87	1226.08
Distribution losses (%)	11.13%	10.75%	10.38%	10.00%
Energy Input (MU) Requirement	**1178.48**	**1213.43**	**1249.51**	**1362.32**

Determination of Aggregate Revenue Requirement

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

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

(b) Operations and Maintenance Expenses;

(c) Return on Capital Employed;

(d) Depreciation, including Advance Against Depreciation;

(e) Tax Expenses;

(f) Non-Tariff Income; and

(g) Income from other businesses.

Power Purchase

Petitioner's Submission

4.28 The Petitioner has submitted that earlier it was meeting its power purchase requirements from Delhi Transco Ltd. at the Bulk Supply Tariff fixed by the Commission. The Petitioner further submits that from the FY08 onwards, NDMC has to purchase power from NTPC's Delhi based Badarpur Thermal Power Station (705 MW) at the rates fixed by Central Electricity Regulatory Commission. The average capacity entitlement of NDMC in BTPS's installed capacity is kept at 49.65%.

4.29 The Petitioner has submitted that the annual capacity charge for BTPS plant as fixed by the CERC for the FY05 to FY09 stands at Rs. 10770.07 Lakhs (based on average entitlement of 49.65% of NDMC in BTPS's installed capacity) and variable cost at Rs. 1.65 /kWh. The Petitioner has submitted that it has been paying capacity charges for entire capacity of BTPS (allocated to NDMC), whereas the drawl from the plant would be based on the actual requirement. The total cost of power purchase is estimated at Rs 2.93 /kWh for FY08.

4.30 For future projections for the rest of the Control Period, the Petitioner proposes the escalation rates of 5.18% and 5.48% as per CERC's notification dated Sep 24, 2007 for escalation rates for capacity and energy charges.

4.31 The following table summarizes proposed power purchase quantum in MU and the various charges payable towards power purchase during the Control Period.

Table 18: Proposed Power Purchase Quantum and Cost

Particulars	FY 08	FY09	FY10	FY11
Power Purchase (MU)	1207.13	1263.68	1323.83	1387.82
Capacity Charges (Rs. Cr)	107.70	113.27	119.15	125.31
Variable Charges (Rs. Cr)	246.06	277.32	312.77	353.01
Total (Rs. Cr)	**353.76**	**390.59**	**431.92**	**478.32**
Average Rate of Power Purchase (Rs per kWh)	2.93	3.09	3.26	3.45

4.32 The Commission observed that the energy availability to the Petitioner is much higher than the energy requirement of the Petitioner and the Petitioner has not shown any surplus power purchase/sale in its petition. The Petitioner while submitting the power purchase expenses for the Control Period has also escalated the variable charges at 7.66% per annum. The Commission directed the Petitioner to re-submit the power purchase quantum and cost for the Control Period after considering the total energy availability and sale of surplus power. The Petitioner revised the power purchase expenses with an escalation rate of 4% per annum for energy charges during the Control Period vide letter dated 19 February, 2008 and the same is shown below.

Table 19: Revised Power Purchase Quantum and Cost

Particulars	FY 08	FY09	FY10	FY11
Power Purchase in (MU)	2297.92	2297.92	2297.92	2297.92
Power Purchase cost (Rs./ unit)	2.71	2.78	2.85	2.92
Capacity Charge (Rs./ unit)	1.06	1.06	1.06	1.06
Variable Cost of Power (Rs./unit)	1.65	1.72	1.78	1.86
Capacity Charges (Rs. Cr)	243.83	243.83	243.83	243.83
Variable Charges (Rs. Cr)	379.16	394.32	410.10	426.50
Total in (Rs. Cr)	**622.98**	**638.15**	**653.92**	**670.33**
Surplus Power available (MU)	1094.11	1041.26	985.13	925.52
Avg. rate of sale of surplus power (Rs./ unit)	1.74	1.82	1.90	2.00
Revenue from sale of Surplus Power (Rs Cr)	**190.00**	**189.25**	**187.64**	**184.97**

Commission's Analysis

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

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

4.35 The Commission had allocated 350 MW of power from Badarpur Thermal Power Station (BTPS) to NDMC for FY08 vide Order no. F.17 (115)/Engg./DERC/2006-07/ dated 31 March, 2007. The Commission has vide Order dated 7 March, 2008 allocated 125 MW, 125 MW and 100 MW of Power from Dadri NCR Thermal Power Station, BTPS and Pragati Power Stations respectively. 15% of the said allocation has been designated as unallocated share at the disposal of GoNCTD. The same has been considered for rest of the Control Period i.e. FY09 to FY11, 4.36 Considering the present power requirement of NDMC, the Commission has for the present considered no allocation of power from the unallocated share to NDMC for FY09. The Commission, however, clarifies that if any unallocated power is made available to NDMC by GoNCTD in future based on its power requirement, the Commission would consider the same for appropriately truing up in the subsequent Tariff Orders.

4.37 The allocations as specified by the Commission are summarised below in the table:

Table 20: Allocation to the NDMC (MW)

Plant	FY08	FY09	FY10	FY11
Dadri TPS	-	125*	125*	125*
BTPS	350	125*	125*	125*
Pragati Power Station	-	100*	100*	100*

* 15% of the allocation has been designated as unallocated share at the disposal of GoNCTD

4.38 The Commission has estimated net energy sent out available to the Petitioner by considering generation at target PLF at 80% and auxiliary consumption of 3.0% as approved in the Commission's MYT Orders for Pragati Power Corporation Limited. For BTPS, net energy sent out for the Control Period is estimated by considering generation based on the actual PLF achieved by the plants in previous years at 84.1% and after deducting auxiliary consumption at 11.00% as approved in relevant CERC Order. The energy available from Dadri TPS has been estimated by considering generation based on the actual PLF achieved by the plants in previous years at 96.05% and after deducting auxiliary consumption at 9.00% as approved in relevant CERC Order.

4.39 Energy available to the Petitioner during the Control Period as considered by the Commission is shown below.

Table 21: Energy Available to NDMC during the Control Period (MU)

Plant	PLF (%)	Auxiliary Consumption (%)	FY08	FY09	FY10	FY11
Dadri	96.05%	9.00%	0.00	813.49	813.49	813.49
BTPS	84.10%	11.00%	2295.96	696.99	696.99	696.99
PPCL	80.00%	3.00%	0.00	577.81	577.81	577.81
Total			**2295.96**	**2088.29**	**2088.29**	**2088.29**

4.40 The Commission has derived annual fixed charges payable (in proportion to the Petitioner's share) applicable in FY08 and FY09 for BTPS and Dadri TPS from the relevant Tariff Order issued by CERC. The annual fixed charges for FY10 and FY11 have been considered at same level as that for FY09 on the assumption that any increase in Operation & Maintenance cost will be offset by the decrease in other fixed charges.

4.41 The fixed cost for Pragati Power Corporation Limited is taken as approved by the Commission in respective MYT Order for the Control Period FY08 to FY11.

4.42 The variable cost including Fuel Price Adjustment (FPA) for the Control Period has been based upon the power purchase data for FY07, as submitted by DTL. An escalation of 3% and 4% has been applied for coal and gas/liquid fired plants respectively on the variable cost for subsequent years.

4.43 Incentives payable are calculated as applicable for generation above target PLF. Income tax and any other charges payable has been considered at the same level as actual paid in FY07. Total power purchase cost has been estimated considering fixed charges, variable charges, FPA, Income tax, incentive and other charges.

4.44 The table below summarizes the cost of power from various sources for each year of the Control Period:

Table 22: Approved Cost of Power Purchase (Rs Cr)

Plant	FY08	FY09	FY10	FY11
Dadri	0.00	190.02	194.39	198.89
BTPS	650.86	202.17	206.90	211.77
PPCL	0.00	117.74	118.10	119.52
Total	**650.86**	**509.93**	**519.39**	**530.18**

4.45 The Commission has estimated PGCIL losses at 3.5% for northern region based on past trends. DTL losses have been estimated at 0.95% as approved by the Commission in MYT Tariff Order of DTL dated 20 December, 2007.

4.46 The Commission has estimated intra-state transmission charges payable to DTL by apportioning DTL's ARR amongst all utilities namely BRPL, BYPL, NDPL, MES and NDMC in proportion to their weighted average allocation of power in MW.

4.47 Inter-state transmission (PGCIL) charges have been estimated by first calculating per MW transmission charges paid to PGCIL by DTL in FY07 and multiplying it with total MW capacity allocation for the Petitioner in the respective years from Dadri TPS.

4.48 The summary of inter-state /intra-state transmission losses and charges as approved by the Commission is given in the table below:

Table 23: Transmission Losses and Charges for NDMC

Particular	FY08	FY09	FY10	FY11
Intra-state transmission				
Transmission Losses (MU)	21.81	19.84	19.84	19.84
Transmission Charges (Rs Cr)	16.15	13.67	14.36	22.56

Particular	FY08	FY09	FY10	FY11
Inter-state transmission				
Transmission Losses (MU)	-	28.47	28.47	28.47
Transmission Charges (Rs Cr)	**0.00**	**7.85**	**7.85**	**7.85**

4.49 The Commission has observed that the Petitioner has surplus power available with it in FY08. As mentioned earlier, the Petitioner has submitted that the sale of surplus power in FY08 would be 1094 MU and the revenue realised from the sale of surplus power would be Rs. 190 Cr at the rate of Rs. 1.74 per unit. The Commission is, however, of the view that the Petitioner has under projected the revenue earned from the sale of surplus power for FY08.

4.50 The Commission, thus, requisitioned the details of actual surplus power sold and revenue realised by NDMC in FY08 (till January, 2008) from SLDC. Based on the information submitted by SLDC, the Commission has observed that between April 2007 and January 2008 the Petitioner has sold 936.84 MU of surplus power available with it (both inter-state and intra-state) and the revenue realised from the sale of such surplus power is Rs 351.91 Cr at the average rate of Rs. 3.76 per unit till January, 2008 contrary to the Petitioner's submission of Rs. 190 Cr for FY08.

4.51 The Commission has also observed that the Petitioner has sold the surplus power to inter-state and intra-state in the ratio of 72:28 (till January 2008) at an average rate of Rs. 4.16 and Rs. 2.75 per unit respectively. The Commission has assumed the ratio of sale of surplus power to inter-state and intra-state would change to 75:25 by March 2008 for FY08. Since the total power available to NDMC from FY09 onwards has been considered as 297.5 MW as against to the power available to NDMC in FY08 as 350 MW, the Commission has assumed that the ratio of surplus sale of power to inter-state and intra-state will be 50:50 from FY09 onwards. The Commission has considered sale of surplus energy available at Rs 2.75 per unit for intra-state sale and Rs 4.00 for inter-state sale.

Energy Balance

4.52 The following table shows the energy balance considering the sales projections, AT&C loss levels, transmission losses, power purchase and sale of surplus power for the Control Period as approved by the Commission.

Table 24 : Energy Balance for NDMC

Particular	FY 08			FY 09			FY 10			FY 11		
	MU	Rs Cr	Avg Cost*	MU	Rs Cr	Avg Cost	MU	Rs Cr	Avg Cost	MU	Rs Cr	Avg Cost
Power Purchase from Dadri TPS	-	-		813.49	190.02	2.34	813.49	194.39	2.39	813.49	198.89	2.44
PGCIL losses	-	-		28.47			28.47			28.47		
Power purchase from Delhi Stations	2,295.96	650.86	2.83	1274.80	319.91	2.51	1274.80	325.00	2.55	1274.80	331.29	2.60
Power Available at Delhi Periphery	2,295.96			2,059.82			2,059.82			2,059.82		
DTL loss	21.81			19.84			19.84			19.84		
Power available to DISCOM	2,274.15			2,039.98			2,039.98			2,039.98		
Sales	1047.38			1082.98			1119.87			1226.08		
Distribution loss	11.13%			10.75%			10.38%			10.00%		
Required Power	1,178.48	240.39	2.04	1213.43	230.96	1.90	1249.51	252.60	2.02	1362.32	301.47	2.21
Surplus/ (Deficit) Power available for sale at DISCOM Boundary	1,095.67	410.47	3.75	826.55	278.96	3.38	790.47	266.79	3.38	677.66	228.71	3.38

** Rs./ unit*

Operation and Maintenance Expenses

4.53 The Petitioner has submitted individual projections of its Employee Expenses, Repairs and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses to arrive at the O&M expenses for the Control Period.

4.54 The Petitioner has submitted the total Operations and Maintenance (O&M) Expenses for the base year (FY07) as Rs 76.52 Cr and projected the values for the four years of the Control Period as Rs 98.76 Cr, Rs 105.80 Cr, Rs 116.92 Cr and Rs 132.51 Cr respectively.

4.55 The Commission observes that the Petitioner has deviated from the approach proposed in the MYT Regulations, 2007 for determination of employee expenses and A&G expenses for the Control Period. In view of the above, the Commission has decided to determine the applicable O&M expenses for each year of the Control Period de novo.

4.56 As per the MYT Regulations, 2007 for determination of distribution tariff, employee and A&G expenses for the Control Period shall be determined using the following methodology:

$$EMP_n + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1})$$

4.57 The inflation factor for the n^{th} year ($INDX_n$) is determined using a combination of Consumer Price Index (CPI) and Wholesale Price Index (WPI) for the n^{th} year as shown below:

$$INDX_n = 0.55*CPI_n + 0.45*WPI_n$$

Determination of Inflation Factor

4.58 The inflation factor used for indexing the employee expenses and A&G expenses is determined using a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding five years.

4.59 Since, the CPI component is primarily considered to contribute towards employee expenses; the Commission has considered the CPI (overall) for Industrial Workers published by the Labour Bureau. The WPI component is linked to A&G costs and hence has been taken from the WPI (overall) published by the Central Statistical Organisation.

Table 25: Actual CPI and WPI

Year	CPI (Overall)	% Growth YoY	WPI (Overall)	% Growth YoY
2000-01	444.17		155.59	
2001-02	463.33	4.3%	161.34	3.7%

Year	CPI (Overall)	% Growth YoY	WPI (Overall)	% Growth YoY
2002-03	481.75	4.0%	166.85	3.4%
2003-04	500.33	3.9%	175.90	5.4%
2004-05	519.50	3.8%	187.23	6.4%
2005-06	540.00	3.9%	195.60	4.5%

4.60 Based on these values, the Commission has calculated the annual growth in values of CPI (overall) for Industrial Workers and WPI (overall) for A&G expenses for the period FY01 – FY06 and has considered the same for determination of indices during the Control Period as given in the tables below.

Table 26: Projected CPI and WPI during the Control Period

Year	Projected Growth in CPI	CPI (Overall)	Projected Growth in WPI	WPI (Overall)
2006-07		568.54		209.75
2007-08	4.0%	591.19	4.7%	219.59
2008-09	4.0%	614.75	4.7%	229.88
2009-10	4.0%	639.25	4.7%	240.66
2010-11	4.0%	664.72	4.7%	251.95

4.61 The Commission has determined the inflation factor for the n^{th} year ($INDX_n$) using a weighted average of CPI and WPI as specified in the MYT Regulations, 2007. The inflation factor is then used to calculate the escalation factor for each year ($INDX_n$/ $INDX_{n-1}$) which is used for projections of Employee and A&G expenses in each year of the Control Period, as shown in the table below.

Table 27: Escalation Factor for the Control Period

Year	Index (Consolidated)	Escalation Factor
2006-07	407.08	
2007-08	423.97	1.0415
2008-09	441.56	1.0415
2009-10	459.88	1.0415
2010-11	478.97	1.0415

Employee Expenses

Petitioner's Submission

4.62 The Petitioner has submitted net employee expenses as Rs. 68.94 Cr, Rs. 71.81 Cr, Rs. 74.80 Cr and Rs. 79.81 Cr for the for FY08, FY09, FY10, and FY11 respectively.

4.63 Considering the present situation of the electricity business not as a separate business and the NDMC Accounts for FY 2006-07 are yet to be finalized, the Petitioner has submitted that the estimates for FY07 are kept at the same level as has been approved by the Commission in the last Tariff order for FY07 and the projections for various expenses for the Control Period are based on the methodology given in the MYT Regulations, 2007 as issued by the Commission as on May 2007. The Petitioner has calculated escalation factor used for indexing using the next five year projections of CPI (Consumer Price Index) and WPI (Wholesale price index) and applying the formula mentioned in the regulations.

4.64 The Petitioner has estimated the inflation factor at 4.16%, which has been used for the escalating Employee Cost.

4.65 In addition, the Petitioner has made further submissions with regard to employee expense claimed for the Control Period

(a) The Petitioner submits that the salary component (provisional) of the employee expense for FY 06-07 has been escalated by 40% taking into consideration the likely impact due to 6th Pay Commission. The sixth Pay commission has already been set up and the Report is expected shortly. The expected revision of 40% has been worked out on the basis of average increase during the last 5th Pay Commission. The actual impact shall be known once the recommendations of the Central Pay Commission are out and implemented. The difference between provision and actuals shall be intimated to the Commission at the time of truing up for the respective years.

(b) The Petitioner further submits that the estimations of Pension & Terminal Benefits are done for the Control Period in the proportion of the basis salary (12% of the salary & allowances) during FY06 and FY07. The ratio of the pension and terminal benefits to the basic salary for FY06 and FY07 is estimated at 22%.

(c) In case of LTC allowances, the Petitioner has estimated the same for the Control Period on the basis of standard HR practice and Government's Fundamental Rules for HR practice assuming 40% of the employees take LTC once in 4 years, 40% of the employees take LTC twice in 4 years and 20% take LTC once in a year. The total LTC estimated to be paid during the Control Period is further divided equally for each of the year of the Control Period.

(d) NDMC has further proposed 10% capitalization of employee cost involved and associated with capital expenditure in respect of transmission and distribution network.

4.66 The following table shows the estimates and projections for employee expenses allocated to the electricity business of NDMC for the Control Period.

Table 28: Proposed Employee Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Total Employee Expenses	76.61	79.79	83.11	88.68
Less: Capitalisation	7.66	7.98	8.31	8.87
Net Employee Expenses	**68.94**	**71.81**	**74.80**	**79.81**

Commission's Analysis

4.67 The Commission has determined the employee expenses of the Petitioner for the Control Period using the methodology detailed in the MYT Regulations, 2007. Hence, the employee expenses for the nth year of the Control Period (EMPn) shall be determined using the employee expenses for the (n-1)th year (EMPn-1) and the escalation factor as determined in Table 27.

4.68 For the purpose of calculation of employee expenses for the Control Period the Commission has considered the trued-up employee expenses of FY07 as the base employee expenses for the Control Period i.e. Rs 54.13 Cr.

4.69 The Commission has recognised the uncontrollable nature of the 6th Pay Commission recommendations in determination of employee expenses during the Control Period. Since the revision in pay, if any, may be applicable from January 1, 2006, the Commission has considered an increase of 10% in total employee expenses for the values in FY06 (3 months) and FY07 due to the same.

4.70 Since the arrears on account of revision of employee costs are expected to be paid only in FY09, the Commission has considered the payment of arrears in tariff of FY09. Similarly, the increase in salaries has been considered for each year, but the impact of such increase has only been taken from FY09 onwards. The Commission shall true-up the impact on account of 6th Pay Commission recommendations based on the actual impact of the same.

4.71 The summary of the revised employee expenses considering the effect of 6th Pay Commission recommendations is provided below.

Table 29: Revised Employee Expenses for FY06 & FY07 (Rs Cr)

Particulars	FY06	FY07
Employee Cost Approved in True up	51.55	54.13
10% escalation due to Pay Commission recommendations	1.29	5.41
Revised Employee Cost	**52.84**	**59.54**

4.72 For the calculation of the employee cost for the Control Period the Commission has considered the following:

(a) Revised employee cost for the base year has been escalated as per the escalation factors mentioned in Table 27.

(b) All arrears due to the impact of the 6th Pay Commission recommendations would be payable in FY09.

4.73 The approved employee expenses of the Petitioner for each year of the Control Period are as shown below.

Table 30: Approved Employee Expenses for the Control Period (Rs Cr)

Particulars	FY06	FY07	FY08	FY09	FY10	FY11
Index(n)/ Index (n-1)			1.0415	1.0415	1.0415	1.0415
Employee Cost with revised base	52.84	59.54	62.01	64.58	67.26	70.05
Arrears	(1.29)	(5.41)	(5.64)	12.34		
Total Employee Cost approved	**51.55**	**54.13**	**56.37**	**76.92**	**67.26**	**70.05**
Less: Capitalisation	5.16	5.41	7.66	7.98	8.31	8.87
Net Employee Cost approved	**46.39**	**48.71**	**48.71**	**68.94**	**58.95**	**61.19**

Administration & General Expenses

Petitioner's Submission

4.74 The Petitioner has submitted that the A & G Expenses during the Control Period have been projected on the basis of the methodology as per DERC's MYT Regulations, 2007. The Petitioner has estimated A & G Expenses for FY07 (base year) at Rs. 11.46 Cr. The Petitioner has calculated escalation factor as 4.16% and for escalating base A&G Expense during the Control Period.

4.75 The Petitioner has submitted that computerization expenses are expected to increase during the Control Period. Even though the actual expenditure on account of computerization for FY06 was only Rs. 5.28 Lakhs, The Petitioner estimates to invest Rs. 5.28 Lakhs and Rs. 30 Lakhs in the FY07 and FY08 respectively. For the rest of the Control Period, the Petitioner has proposed the investments on account of computerization as Rs. 10 Lakhs per annum.

4.76 With respect to other major sub components of A & G Expenses excluding Legal & Consultancy charges, the Petitioner has proposed 4.16% escalation on the estimates of the FY08 as per the NDMC budget for FY08.

4.77 With Respect to Rent Rates and Taxes, the Petitioner has submitted that there are no separate buildings for NDMC's electricity business therefore the asset value of these buildings is not included in the value of assets relating to electricity supply. However, the rent for such accommodation would have to be included in the expenses of the electricity function of NDMC to determine the true cost of electricity supply to the consumers. The Petitioner has submitted that with the implementation of the new

Accounting Manual of NDMC, the electricity department would be required to pay rent for the electricity offices/substations/service stations located in NDMC building and same would be shown as expense of the electricity department in NDMC's budget and books of account. Pending the implementation of the new Accounting Manual, Rent Rates and Taxes are estimated at Rs. 39.49 Cr for FY08 and then escalated at 4.16% for rest of the Control Period. The Petitioner later revised the expense towards Rent Rates and Taxes as Rs. 10 Cr for FY07 and has escalated the same at 4.16% for the Control Period.

4.78 The Petitioner has submitted that Legal Charges/DERC Fee/Consultancy Fees are proposed on the basis of actual expenses envisaged during the Control Period. Further an escalation of 4% per year is proposed on account of the provision for bad and doubtful debts on the basis of the sales projection during the Control Period.

4.79 Administrative and General Expenses as proposed by the Petitioner are summarised below in the table.

Table 31: Proposed A&G Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Computerization	0.30	0.10	0.10	0.10
Telephone	0.60	0.62	0.65	0.68
Security & Others	0.16	0.17	0.17	0.18
Rent, Rates and Taxes	10.41	10.84	11.30	11.77
Legal Charges/ DERC Fee/ Consultancy Fee	0.50	0.30	0.20	0.20
Consumer Forum	0.10	0.10	0.11	0.11
Running of Ombudsman Office	0.03	0.03	0.03	0.03
Provision for bad/doubtful debts	0.58	0.58	0.58	0.58
Implementation of RIMS	0.00	0.00	0.00	0.00
Net A&G Expenses	**12.68**	**12.75**	**13.14**	**13.65**

Commission's Analysis

4.80 The Commission has calculated A&G expenses for the Control Period by considering the revised A&G Expenses of the base year i.e. Rs. 11.46 Cr and has escalated the same as per the escalation factor mentioned in Table 27. The summary of A&G Expenses as approved by the Commission is given in the table below.

4.81 The approved employee expenses of the Petitioner for each year of the Control Period are as shown below.

Table 32: Approved A&G Expenses for the Control Period (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Index(n)/ Index (n-1)		1.0415	1.0415	1.0415	1.0415
Net A&G Expenses	**11.46**	**11.93**	**12.43**	**12.95**	**13.48**

R & M Expenses

4.82 As per the MYT Regulation, 2007, the Repairs and Maintenance (R&M) Expenses of the Petitioner for the Control Period has to be determined based on the following formula:

$$R\&M_n = K * GFA_{n-1}$$

Where, 'K' is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) for the nth year.

Petitioner's Submission

4.83 The Petitioner has submitted that as NDMC's accounts for FY07 are yet to be finalized, R&M Expenses are estimated at Rs. 16.35 Cr for FY07 as per the Commission's approved levels, representing an increase of approximately 3% over the FY06.

4.84 The Petitioner has submitted that R&M expenses have been worked out by applying the formula as per MYT Regulations given by the Commission. Considering the FY 2006-07 as a base year, the value of 'K' factor by considering FY07 as base year the value of K is calculated by considering the R&M expenses as per Commission's Tariff Order for FY07 and estimated opening level of GFA for FY07 i.e. 4.99%.

4.85 R&M expenses as proposed by the Petitioner for the Control Period are as follows

Table 33: Proposed R&M Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
R&M Expenses	17.13	21.23	28.98	39.05

Commission's Analysis

4.86 The Commission has considered the approved values of R&M Expenses and opening GFA approved after truing up of expenses for FY07 to calculate the of 'K factor' for the determination of R&M expenses for the Control Period. Unlike the methodology followed by the Commission for the other DISCOMs by considering the average K factor for last 5 years, in case of NDMC the Commission has considered the K factor of one year (i.e. FY07) since the data of R&M expenses and GFA is not available. Thus, the K factor considered by the Commission for the Control Period is 4.99% by considering the R&M expenses of Rs. 16.35 Cr and opening GFA of Rs 327.57 Cr.

4.87 The Commission has determined the R&M Expenses for each year of the Control Period, considering the opening level of GFA as approved by the Commission. The summary of R&M Expenses approved by the Commission for the Control Period is as shown below.

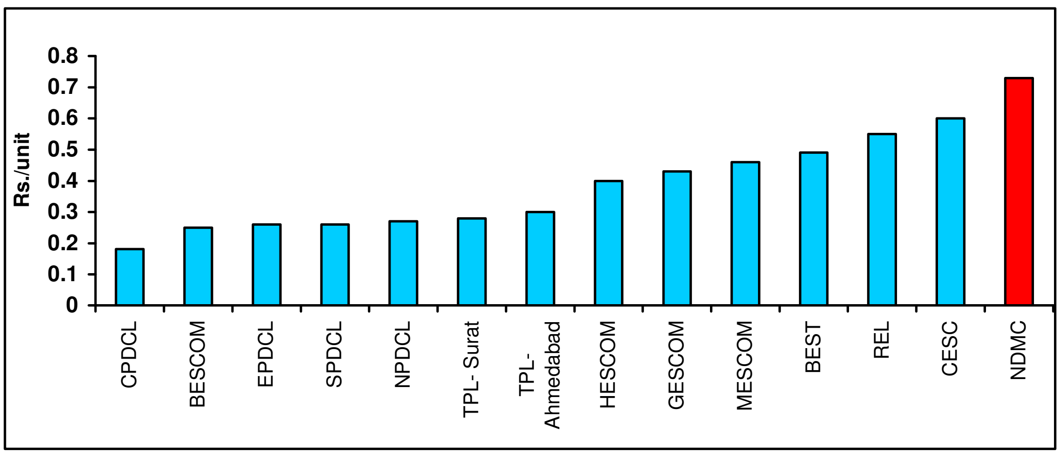
Table 34: Approved R&M Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Opening GFA	343.14	406.51	561.63	763.39
'K' Factor (%)	4.99%	4.99%	4.99%	4.99%
R&M Expenses	**17.13**	**21.23**	**28.98**	**39.05**

Efficiency Factor

4.88 The Commission is of the view that O&M expenses trajectory for the Control Period shall be decided considering an expected annual efficiency improvement factor. The Commission has observed that the O&M cost of NDMC is on the higher side as compared to similar urban distribution companies in other states, thus, representing the inefficiencies in the system. The summary of the relative comparison of O&M cost of NDMC with respect to other utilities is shown below.

Figure 1: O&M Expenses per unit of sales (FY08)



* Source: Approved values of O&M expenses (FY08) in the Tariff Order for the respective utilities and NDMC proposal on O&M expenses for FY08

4.89 Thus in consideration of the above, the Commission is of the view that Petitioner should try to bring efficiency into the system, thereby, reducing the burden of inefficiencies on to the consumers of Delhi. The Commission also direct the Petitioner to carry out a proper cost benefit analysis before taking up any new initiatives and submit the same for the approval to the Commission.

4.90 The Commission expects the Petitioner to improve its performance considering the repetitive nature of O&M works and introduction of new technologies. Hence, the Commission has determined the efficiency improvement factor as 2%, 3% and 4% for FY09, FY10 and FY11 respectively.

4.91 The summary of total O&M Expenses approved by the Commission for the Control Period is provided in the table below.

Table 35: Approved O&M Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Employee Cost	48.71	68.94	58.95	61.19
R&M Expenses	17.13	21.23	28.98	39.05
A&G Expenses	11.93	12.43	12.95	13.48
Total O&M Expenses	**77.77**	**102.61**	**100.87**	**113.71**
Efficiency Improvement		2%	3%	4%
Net O&M Expenses	77.77	100.55	97.85	109.17

Administrative Deptt. and Civil Engineering Deptt. Expenses

Petitioner's Submission

4.92 The Petitioner has submitted that NDMC has a separate Administration department consisting of NDMC Board, Finance Department, General Administration, Law Department, Public Relations, Staff and Labour welfare, Vigilance department, Auto workshop, Information & Technology, Engineer-in-Chief etc. Also, there is a separate Civil Engineering Department and the services of the department are utilized for the civil portion of electrical works. Thus, the services of the Administration & Civil Engineering Department are common to all the functions carried out by the Petitioner and the expenditure pertaining to these departments should be allocated to all functions of the Petitioner.

4.93 The Petitioner has submitted that pending the implementation of double entry accounting system, NDMC proposes proposes an escalation of 4.16% as per the MYT regulations over the Commission's approved figure for FY07 under Administrative & Civil Engineering Department expenses during the Control Period as summarised in the table below.

Table 36: Proposed Admin. & Civil Engg. Deptt. Expenses for the Control Period (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Total Expenses allocated	45.37	47.26	49.22	51.27	53.40

Commission's Analysis

4.94 The Petitioner submitted that it has decided to adopt the National Municipal Accounting Manual and NDMC's Accounts Manual is being modified by customising the Municipal Accounting Manual to the requirements of NDMC. The adoption of Accounting Manual will involve the implementation of the double entry accounting system and separate booking of the cost of works carried out by Civil Engineering Department for Electricity Department. The Petitioner would provide the complete details of expenditure relating to common departments to the electricity supply once the National Municipal Accounting Manual and double entry accounting system is implemented within NDMC.

4.95 The Commission had in its Tariff Order dated November 2, 2005, already elaborated in detail the justification for allocating the cost of Civil Engineering Department to the Electricity Department. As the exact details of the cost of the works carried out by the Civil Engineering Department for Electricity Department were not available, the Commission, for the purpose of determination of ARR for FY06, has considered a lump sum amount of Rs. 10.00 Cr on provisional basis towards this expenditure. As the details of cost of works carried out by the Civil Engineering Department for electricity are still not available, the Commission has considered the same amount for the Control Period towards this expense. The Commission will consider the actual cost of works carried out by Civil Engineering Department for electricity appropriately during the truing up process at the end of the year after prudent checks.

4.96 ***The Commission directs the Petitioner to separately book the cost of works carried out by civil engineering department for electricity department and provide the complete details of such works and associated costs at the end of the year bringing out clearly the percentage expenditure of Civil Engineering Department booked to electricity department vis-à-vis all the other departments.***

4.97 The Commission had in its Tariff Order dated November 2, 2005 elaborated in detail the justification for allocating the Administrative Department expenses to the Electricity Department. With respect to allocation of the Administrative Department expenses, the Commission re-iterates its opinion that the Administrative Department of NDMC is a common department, which serves the requirement of all the departments of NDMC. The Commission is of the opinion that the electricity business cannot subsidise any other business of NDMC. This view of the Commission was also identical to the views of the Appellate Tribunal for Electricity in the matter of MERC vs. BEST (Appeal No 61 of 2006 dated 18 August, 2006) that –

"In the considered view of this Tribunal, the appellant may continue to carry on the transport business in addition to the distribution of electricity as a local authority engaged in such businesses. Yet that will ***not enable the appellant or authorize electricity business to subsidise the transport business nor it could support the said transport business or any other business carried by the appellant.*** *If the contention advanced on behalf of the appellant is to be sustained, it would result in excluding the entire distribution of the Appellant Corporation from the provisions of The Electricity Act, 2003, which is not the intendment of the Legislature. The interpretation advanced on behalf of the appellant cannot be sustained………*

………However, there is no legal impediment for the Appellant Corporation utilizing the profits or surplus income from the electricity distribution business for the purpose of Corporation or for the purpose of any one or more its business including the transport business, which it has been carrying on like any other entrepreneur or a corporate body. It is also not in dispute under the Mumbai City Municipal Corporation Act, the transport business and the electricity business has been considered as one unit for all purposes of finance and management. Hence, any profit or surplus income which the Appellant Corporation could derive from its electricity

business could very well be used for transport business. ***We make it clear that there could be no consolidation of the revenues of electricity business with the transport business and separate accounts have to be maintained for the two businesses"***

4.98 Therefore, the expenses of Administrative Department need to be shared by all the departments of NDMC. As the total cost incurred on administrative department is not available, the Commission proposes to consider Rs 35.37 Cr towards administrative expenses allocated to electricity department for each year of the Control Period, same as approved for FY07 in previous Tariff Order.

4.99 The Commission shall also consider the actual cost of works carried out by Civil Engineering Department for electricity appropriately during the truing up process at the end of the year after prudent checks.

4.100 The summary of Administrative and Civil Engineering Department expenses allocated to electricity department as considered by the Commission for the Control Period is given in Table below:

Table 37: Approved Admin & Civil Engg. Deptt. Expenses for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Civil Engineering Department	10.00	10.00	10.00	10.00
Administrative Department	35.37	35.37	35.37	35.37
Total Expenses allocated	45.37	45.37	45.37	45.37

Capital Investment

Petitioner's Submission

4.101 The Petitioner submitted its five year investment plan on Sep 18, 2007 vide letter no. A.O. (Comml.)/D-1130 to the Commission and a copy of the same has been submitted along the petition

4.102 The Petitioner has submitted that it has a vintage and weak distribution network, which warrants a higher degree of maintenance to ensure reasonable availability, reliability and quality of supply. In view of the above, the Petitioner has proposed investments for meeting the load growth requirements, augmentation of transformers, Feeder capacities, replacement of switchgears and other equipments at all levels viz. 66 KV level, 33 KV level and 11 KV/LT level. More than 50% of the total investments are attributed to 11 KV/LT works.

4.103 The Petitioner submitted that it has made capital investment of Rs. 13.02 Cr (in the initial petition) which was later revised to Rs. 18.15 Cr (in the submission dated 5 March, 2008) for the base year FY07, and has proposed capital investment during the Control Period as Rs. 81.60 Cr., Rs.228.64 Cr., Rs. 174.88 Cr. and Rs. 109.82 Cr. in

FY08, FY09, FY10 and FY11 respectively. The summary of the investment plan proposed by NDMC has been provided in the tables below.

Table 38: Proposed Capital Expenditure Plan (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
66 KV EHV Works				
66 KV New Grid S/S at B.D.Marg, State Guest House, and Bapu Marg	5.14	30.84	15.42	0
66 KV New Feeder (Park Street to School Lane and Park Street to Vidyut Bhawan)	0	17.39	0	0
Repalcement of 66 KV Feeders (G.T. to Vidyut Bhawan-both Feeders)	15.00	5.00	0	0
Installation of Power Transformers (20 MVA at School Lanes)	0	6.75	0	0
Total 66 KV EHV Works	20.14	59.98	15.42	0
33 KV EHV Works				
33 KV New Grid S/S (Church Road, Raja Bazaar, Sanjay Camp and Constitutional Camp, Arjun Camp, Aliganj and Connaught Place)	4.96	29.76	18.60	22.32
33 KV New Feeders (220 KV H.C. Mathur Lane to Connaught Place, Vidyut Bhawan, Nirman Bhawan and New Feeders for the proposed grids)	0	1.25	8.61	6.00
Replacement of 33 KV Feeders (Feeders from I.P Station & Park Street)	0	4.50	7.00	0
Replacement of 33 KV Switchgears (at AIIMS, Nirman Bhawan, Bapu Dham, Baird Lane, Vidyut Bhawan and Electric Lane)	0	18.75	1.875	0
Balance Work at Trauma Circle & Mandi House	0	7.90	0	0
Total 33 KV EHV Works	4.96	62.16	52.96	28.32
11 KV/LT Works				
Augmentation of Transformers and Feeder capacities and Replacement of Switchgears and other equipments	50.00	100.00	100.00	75.00
Total 11 KV/LT Works	50.00	100.00	100.00	75.00
Total Maintenance Works	6.00	6.00	6.00	6.00
Total Metering Equipments Capex	0.50	0.50	0.50	0.50
Total Capex Plan	**81.60**	**228.64**	**174.88**	**109.82**

Commission's Analysis

4.104 The Commission has observed that in the "Comprehensive Investment Plan" submitted by the Petitioner on 13 August, 2007 indicates the capital expenditure of Rs. 66.60 Cr, Rs. 243.64 Cr, Rs. 178.70 Cr and Rs. 109.82 for FY08, FY09, FY10 and FY11 respectively.

4.105 The Commission has further observed that in the petition filed on 1 November, 2007 the capital expenditure plan has been revised to Rs. 81.60 Cr., Rs.228.64 Cr., Rs. 174.88 Cr. and Rs. 109.82 Cr. in FY08, FY09, FY10 and FY11 respectively. The Commission has considered this capital expenditure proposal i.e. total of Rs. 594.94 Cr for the Control Period as the final submission from NDMC.

4.106 The Commission is of the view that NDMC has projected an ambitious investment program of Rs. 594.94 Cr. for the Control Period. Though the annual investments proposed for each year are significantly higher than the actual investments made by the Petitioner in previous years, the Commission believes that future capital investment needs to be considered on the basis of future requirements and not on past performance.

4.107 The Commission has carried out initial scrutiny for the proposed investment. The Commission is of the opinion that the capital investment proposed by the Petitioner needs a review for considering prudent investment in an efficient and economical manner.

4.108 The Commission reiterates the need for an integrated and a coordinated approach between the DTL and the distribution utilities for a pragmatic capital expenditure plan to ensure that the benefits of system improvement are available to the end consumers. Keeping in view the present status of preparedness for the proposed investment and need for integrating the implementation plan, the Commission has approved the investment plan for the Control Period at a normative level considering actual investment made during the past years and assessing system requirement for the ensuing period.

4.109 The Commission provisionally approves the following capital investment for the Control Period.

Table 39: Approved Capital Investment during the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11	Total
Capital Investment*	**81.60**	**228.64**	**174.88**	**109.82**	**594.94**

** Including IDC and Establishment expenses*

4.110 The Commission re-iterates that the consideration of capital investment including capitalization of interest and establishment expenses during the Control Period for the purpose of determination of ARR does not imply the approval of schemes and the

Petitioner has to obtain the scheme wise approval for the capital expenditure to be incurred during each year of the Control Period as per the annual investment plan drawn for the purpose. **The Petitioner is, hereby, directed to file the detailed proposal for various capital expenditure schemes implemented/ to be implemented during Control Period.** The Annual investment plan should be submitted prior to commencement of the respective financial year. The Petitioner is advised to submit the quarterly progress report of actual capital investment in the format prescribed by the Commission within one month of the respective quarter. The Commission would also true-up the capital investment for each year at the end of the Control Period based on the actual capital investment carried out by the Petitioner.

Asset Capitalisation

Petitioner's Submission

4.111 With regard to Original cost of Fixed Assets, the Petitioner has submitted the revised estimates of Gross Fixed Assets as on 31 March, 2007 is estimated at Rs. 327.57 Cr based on the capital expenditure being undertaken in FY07. The Petitioner further mentioned that it has not been able to prepare the details of asset-wise classification of fixed assets in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 as directed by the Commission.

4.112 The Capital expenditure programme during FY07 was proposed as per the NDMC's budget FY08 at Rs. 11.03 Cr excluding the replacement works of Rs. 1.99 Cr. This amount has been later revised to Rs. 18.15 Cr in the submission dated 5 March, 2008. It is expected that entire works in progress and 50% of the capital expenditure for FY07 would be completed and the assets would be put in use during the FY07. Thus an amount of Rs. 15.57 Cr gets transferred to the assets that are in use.

4.113 Adopting the similar methodology, the Petitioner has proposed to capitalize assets worth Rs. 82.29 Cr. in FY08, Rs. 155.12 Cr. in FY09, Rs. 201.76 Cr. in FY10 and Rs. 142.35 Cr. in FY11, as shown in the table below.

Table 40: Proposed CWIP for the Control Period (Rs Cr.)

Particular	FY08	FY09	FY10	FY11
Opening CWIP	38.24	37.55	111.07	84.19
Additions to CWIP	81.60	228.64	174.88	109.82
Capitalisation of Investment	82.29	155.12	201.76	142.35
Closing CWIP	37.55	111.07	84.19	51.66

Commission's Analysis

4.114 The Commission has analysed the available details to consider provisional capitalization for the Control Period and the same would be subjected to true-up at the end of the Control Period. The Petitioner is directed to submit actual details of capitalization for each year of the Control Period by September 30 of the following year to the Commission for scrutiny and year-wise capitalization of assets.

4.115 The Commission hereby directs the Petitioner to organize for scheme-wise completion and consequent capitalization of the assets in consonance with the commissioning/ commercial operation of the respective scheme which would be certified by the Electrical Inspector/ SLDC/ relevant authority and considered as an element of distribution system in operation. The Petitioner is also directed to submit the necessary statutory clearances/ certificates of Electrical Inspector, etc. for all EHV & HV works and certificate of SLDC for commissioning/ commercial operation. The Petitioner is advised to ensure timely completion of the works/ schemes as per the schedule stipulated in the proposals submitted to the Commission for approval.

4.116 Based on the above, the Commission has determined the following capitalisation schedule for the investments proposed during the Control Period. The Commission would like to clarify that capitalisation approved below is provisional and is subjected to true-up on the basis of actual capital investment made and the schemes commissioned by the Petitioner.

Table 41: Approved CWIP for the Control Period (Rs Cr)

Particular	FY08	FY09	FY10	FY11
Opening CWIP	22.56	40.80	114.32	87.44
Additions to CWIP	81.60	228.64	174.88	109.82
Capitalisation of Investment	63.36	155.12	201.76	142.35
Closing CWIP	40.80	114.32	87.44	54.91

Depreciation

Petitioner's Submission

4.117 The Petitioner has submitted that it has not been able to prepare the details of asset-wise classification of fixed assets in accordance with the Appendix II to Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 as directed by the Commission in last two tariff orders. Pending the preparation of assets and asset wise classification, the Petitioner proposes an average rate of depreciation for distribution assets @ 3.60 % for computing depreciation for the Control Period in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2004.

4.118 In the MYT petition, the Petitioner has proposed the following depreciation (inclusive of AAD) for the Control Period.

Table 42: Proposed Depreciation for the Control Period (Rs Cr)

Scheme	FY08	FY09	FY10	FY11
Opening Balance of Fixed Assets	343.14	425.43	580.55	782.31

Scheme	FY08	FY09	FY10	FY11
Addition during the year	82.29	155.12	201.76	142.35
Retirement during the year	0.00	0.00	0.00	0.00
Closing balance of fixed assets	425.43	580.55	782.31	924.66
Avg. fixed assets	384.29	502.99	681.43	853.48
Rate of Depreciation	3.60%	3.60%	3.60%	3.60%
Depreciation	**13.83**	**18.11**	**24.53**	**30.73**

Commission's Analysis

4.119 As the asset-wise break up of assets is still not made available to the Commission by the Petitioner, the Commission has considered an average depreciation rate of 3.6% for the Control Period.

4.120 The Commission may true up depreciation expenses for the Control Period, once the break up of assets and their classification is provided.

4.121 **The Petitioner is hereby directed to submit the break-up of opening block of assets and assets capitalized during the year as per the classification specified in the MYT Regulations, 2007.**

4.122 Based on the asset values during the Control Period and the average rate of depreciation considered by the Commission has approved depreciation as follows

Table 43: Approved Depreciation for the Control Period (Rs Cr)

Scheme	FY08	FY09	FY10	FY11
Opening Balance of Fixed Assets	343.14	406.51	561.63	763.39
Addition during the year	63.36	155.12	201.76	142.35
Retirement during the year	0.00	0.00	0.00	0.00
Closing balance of fixed assets	406.51	561.63	763.39	905.74
Avg. fixed assets	374.82	484.07	662.51	834.56
Rate of Depreciation	3.60%	3.60%	3.60%	3.60%
Depreciation	**13.49**	**17.43**	**23.85**	**30.04**

4.123 As per the MYT Regulations, 2007 Clause 4.16 (b) (ii), Depreciation shall be trued up at the end of the Control Period.

Return on Capital Employed

4.124 The Return on Capital Employed (RoCE) for the Petitioner shall be determined as specified in the MYT Regulations. The RoCE can be determined only after determination of the Regulatory Rate Base (RRB) for any particular year, and the Weighted Average Cost of Capital (WACC) for the year.

Regulated Rate Base

Petitioner's Submission

4.125 The Petitioner has estimated its Regulated Rate Base (RRB) for each year of the Control Period based on the formula specified in the MYT Regulations, as shown in the table below.

Table 44: Proposed RRB for the Control Period (Rs Cr.)

Particulars	FY 07	FY 08	FY 09	FY 10	FY 11
Opening Balance of OCFA	327.57				
Opening Balance of Working Capital	61.35				
Opening Balance of Accumulated Depreciation	239.25				
Investments in capital expenditure during the year		82.29	155.12	201.76	142.35
Depreciation for the year		13.83	18.11	24.53	30.73
Consumer Contribution, Grants, etc for the year		25.43	26.56	27.75	28.99
Change in Working Capital		73.17	5.05	5.53	6.03
RRB - for each year	**63.98**	**158.66**	**218.94**	**299.21**	**346.56**

4.126 The Petitioner also submitted the revised RRB for the Control Period vide letter dated 19 February, 2008. The Petitioner has RRB as Rs. 72.65 Cr, Rs. 131.69 Cr, Rs. 210.81 Cr and Rs. 257.13 Cr for FY08, FY09, FY10 and FY11 respectively.

Commission's Analysis

4.127 The Commission has approved RRB as per the MYT regulations. The Commission has observed that the Petitioner has considered consumer security deposits as consumer contribution and has reduced the same from the capital investment for the Control Period. The summary of RRB approved by the Commission for the Control Period is provided in the table below.

Table 45: Approved RRB for the Control Period (Rs Cr)

	Particulars	**FY07**	**FY08**	**FY09**	**FY10**	**FY11**
A	OCFA	343.14				
B	Opening Balance of Working Capital	8.18				
C	Accumulated Depreciation	239.25				
D	RRB (opening)		112.07	179.21	327.86	509.98
E = F-G-H-I	Δ **AB**		49.87	137.69	177.91	112.31
F	Investments capitalized		63.36	155.12	201.76	142.35
G	Depreciation		13.49	17.43	23.85	30.04
H	Consumer Contribution		0.00	0.00	0.00	0.00
I	Change in WC		17.27	10.96	4.20	11.00

	Particulars	FY07	FY08	FY09	FY10	FY11
J = D+E+I	RRB (Closing)	112.07	179.21	327.86	509.98	633.29
K = D+E/2+I	**RRB(i)**		**154.28**	**259.02**	**421.02**	**577.13**

Working Capital Requirement

Petitioner's Submission

4.128 The Petitioner has submitted that Working Capital requirement estimates are done as per the MYT regulations and has considered the following components for calculating its working capital requirements:

(a) Receivables for two months towards tariffs & charges; and

(b) Operation and Maintenance expenses for one month.

(c) Less Power Purchase Expenses for one month

Table 46: Proposed Working Capital for the Control Period (Rs Cr.)

Particulars	FY07	FY08	FY09	FY10	FY11
O&M Expenses	76.52	127.83	136.08	148.46	165.37
1/12th of Total O&M Expenses	6.38	10.65	11.34	12.37	13.78
Receivables					
Annual revenues from Tariffs and Charges	499.68	530.47	543.37	570.14	598.59
Receivables equivalent to 2 months average billing	83.28	88.41	90.56	95.02	99.77
Power Purchase expenses	329.23	353.76	390.60	431.92	478.33
Less: 1/12th of power purchase expenses	27.44	29.48	32.55	35.99	39.86
Less: Consumer Security Deposit	24.34	25.43	26.56	27.75	28.99
Total Working Capital	**37.88**	**44.16**	**42.79**	**43.65**	**44.70**

Commission's Analysis

4.129 Based on the approved O&M Expenses, expected receivables and the expected Power purchase cost, the Commission approves the working capital requirement for the Control Period provided in the table below.

Table 47: Approved Working Capital for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
O&M Expenses	77.77	100.55	97.85	109.17
1/12th of Total O&M Expenses	6.48	8.38	8.15	9.10
Receivables	386.57	443.04	487.55	579.78
Receivables equivalent to 2 months average billing	64.43	73.84	81.26	96.63
Power Purchase expenses	240.39	230.96	252.60	301.47
Less: 1/12th of power purchase expenses	20.03	19.25	21.05	25.12
Less: Consumer Security Deposits	25.43	26.56	27.75	28.99
Total Working Capital	**25.45**	**36.41**	**40.61**	**51.62**

Means of Finance

Petitioner's Submission

4.130 The Petitioner has submitted that NDMC does not have any debt in its books and proposes no debt financing in future for its capital expenditure plan also. "**The Petitioner has proposed to finance entire capital expenditure for the Control Period through internal funds from other departments which would be treated as debt and interest would be paid on it"**. However, the Petitioner while calculating the RoCE has considered normative debt – equity ratio of 70:30.

Commission's Analysis

4.131 The Commission has observed that the funding of capital works in NDMC is done either through budgetary allocation or through internal funds from various departments. The Petitioner in its submission to the Commission on 23 November, 2007 has also mentioned that the entire funding of the capital expenditure as proposed is done through the internal accruals of NDMC and this would be strictly treated as debt on which interest would be paid by NDMC electricity department. Since there is no equity funding the Commission has considered the funding of capital investment entirely through debt.

Determination of WACC and RoCE

Petitioner's Submission

4.132 The Petitioner has submitted that it does not have any debt in its books and no debt financing is proposed in future also. Therefore, the Petitioner has proposed to consider a notional loan at 70% of the total capital employed. Hence the D/E ratio taken to calculate WACC is considered as 70:30. The Petitioner has considered the cost of equity at 14% and the cost of debt at 11.50%.The WACC calculated using these figures comes out to be 12.25%.

4.133 The Petitioner has calculated the return on capital employed considering the RRB and the WACC for the respective years. The summary of the WACC and RoCE calculations, submitted by the Petitioner is provided in the table below.

Table 48: Proposed RoCE for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
RRB_i	72.66	131.69	210.81	257.13
Rate of Return on Equity	14.0%	14.0%	14.0%	14.0%
Rate of Return on Debt	11.5%	11.5%	11.5%	11.5%
WACC	12.25%	12.25%	12.25%	12.25%
RoCE	**8.90**	**16.13**	**25.82**	**31.50**

Commission's Analysis

4.134 The Commission observed that the Petitioner has applied the normative debt-equity ratio of 70:30 on the opening balance of the regulated rate base and the average value of all investments during the Control Period to obtain the closing balance of debt and equity in any year of the Control Period.

4.135 The Commission has however, considered the entire 100% financing of capital investment through debt.

4.136 The Commission has thereby calculated the RoCE for the Control Period based on the WACC derived and the Regulated Rate Base approved for the Control Period, as explained above. As discussed in the Para 4.5, the Wheeling and Retail Supply business of the Petitioner is not segregated, the Commission has considered 16% return on equity as the Petitioner would not be applicable for the Supply Margin for the Control Period. The table below summarises the RoCE approved by the Commission for the Control Period.

Table 49: Approved RoCE for the Control Period (Rs Cr.)

Particulars	FY08	FY09	FY10	FY11
RRB_i	154.28	259.02	421.02	577.13
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%
Rate of Return on Debt	11.50%	11.50%	11.50%	11.50%
WACC	11.50%	11.50%	11.50%	11.50%
RoCE	**17.74**	**29.79**	**48.42**	**66.37**

4.137 Since all elements of RoCE are subject to true-up, the Commission shall also true-up the RoCE approved above at the end of the Control Period.

Non Tariff Income

Petitioner's Submission

4.138 The Petitioner has submitted the details of Non Tariff Income (NTI) for the Control Period. The Petitioner has submitted that it has billed Rs. 43.18 Lakhs as late payment surcharges and Rs. 362.43 Lakhs as mis-use charges to various consumers during FY07. The same has been duly taken into account while determining non-tariff income. The Petitioner has projected non tariff income as per the revised budget for FY08 and further escalated for rest of the Control Period at the projected sales growth rate of 4%.

4.139 The Non-Tariff Income of NDMC has been estimated at Rs 3.10 Cr, Rs 3.22 Cr, Rs 3.35 Cr and Rs 3.48 Cr in FY08, FY09, FY10 and FY11 respectively by the Petitioner, as depicted in table below.

Table 50: Proposed Non-Tariff Income for the Control Period (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Meter Rent	1.42	1.20	1.25	1.30	1.35
Service Connection Fees	0.15	0.38	0.40	0.41	0.43
Recovery of Departmental Charges	2.07	0.31	0.32	0.34	0.35
Recovery of Storage Charges	0.24	0.30	0.31	0.32	0.34
Other Receipts	0.86	0.47	0.49	0.51	0.53
Late payment surcharge	0.43	0.43	0.45	0.47	0.49
Mis-use charges	3.62	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00	0.00
Total	**8.80**	**3.09**	**3.22**	**3.35**	**3.48**

Commission's Analysis

4.140 The Commission has analysed the submission made by the Petitioner in detail and approves the NTI for the Control Period as provided in the table below.

Table 51: Approved Non-Tariff Income for the Control Period (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Meter Rent	1.42	1.20	1.25	1.30	1.35
Service Connection Fees	0.15	0.38	0.40	0.41	0.43
Recovery of Departmental Charges	2.07	0.31	0.32	0.34	0.35
Recovery of Storage Charges	0.24	0.30	0.31	0.32	0.34

Particulars	FY07	FY08	FY09	FY10	FY11
Other Receipts	0.86	0.47	0.49	0.51	0.53
Late payment surcharge	0.43	0.43	0.45	0.47	0.49
Mis-use charges	3.62	0.00	0.00	0.00	0.00
Others	0.00	0.00	0.00	0.00	0.00
Total	**8.80**	**3.09**	**3.22**	**3.35**	**3.48**

4.141 The Commission shall true-up the NTI based on the actual values at the end of the Control Period.

Aggregate Revenue Requirement

Petitioner's Submission

4.142 The table given below provides a summary view of the Aggregate Revenue Requirement (ARR) as proposed by the Petitioner for the Control Period.

Table 52: Proposed ARR for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
A. EXPENSES				
Power Purchase Expenses	622.98	638.15	653.92	670.33
SLDC and STU Charges	15.87	15.87	15.87	15.87
Employee Cost	68.94	71.81	74.80	79.81
R & M Expenses	17.13	21.23	28.98	39.05
Administration & General Expenses	12.68	12.76	13.15	13.66
Admissible Expenses	0.00	0.00	0.00	0.00
Depreciation	13.83	18.11	24.53	30.73
Interest & Finance Charges	0.00	0.00	0.00	0.00
Administrative Deptt.& Civil Engg. Deptt	47.26	49.22	51.27	53.40
Total Expenses	798.70	827.15	862.52	902.84
B. RoCE	8.90	16.13	25.82	31.50
C. NON TARIFF INCOME	3.09	3.22	3.35	3.48
Total Revenue Requirement (A+B-C)	**804.51**	**840.06**	**884.99**	**930.85**
Sale of Surplus Power	190.00	189.25	187.64	184.97
Net Revenue Requirement	**614.51**	**650.81**	**697.35**	**745.88**

Commission's Analysis

4.143 The table given below provides a summary view of the Revenue Requirement as approved by the Commission for the Control Period. Detailed analysis of each expense head has already been provided in the above sections.

Table 53: Approved ARR for the Control Period (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
Net Cost of Power Purchase	240.39	230.96	252.60	301.47
Inter-State Transmission charges	0.00	7.85	7.85	7.85
Intra-state Transmission charges	16.15	13.67	14.36	22.56
SLDC fees and charges	0.64	0.63	0.60	0.43
Operation & Maintenance Costs	77.77	100.55	97.85	109.17
Depreciation	13.49	17.43	23.85	30.04
Admin & Civil Engg. Dept Expenses	45.37	45.37	45.37	45.37
Return on Capital Employed	17.74	29.79	48.42	66.37
Less: Non Tariff Income	3.09	3.22	3.35	3.48
Aggregate Revenue Requirement	**408.46**	**443.04**	**487.55**	**579.78**

A5: TARIFF DESIGN

Introduction

5.1 The concept behind the Multi Year Tariff framework is to provide predictability and reduce regulatory risk. Under the MYT Framework, the Commission determines the Aggregate Revenue Requirement (ARR) of the Licensee for the entire Control Period at the beginning and set long term performance targets for Licensee. Simultaneously, the Commission segregated costs into two categories; first which are expected to be easily controlled by the Licensee and a second category over which the Licensee does not have significant control. The uncontrollable parameters include Power Purchase Cost and Sales, which may require year to year revision. Since the Power purchase cost represents approximately 70% of the ARR, to take care of any variations in uncontrollable parameter, the Commission has fixed the tariff till 31 March, 2009.

5.2 This Section focuses on the revenue at existing tariffs, revenue gap and tariff philosophy of the Commission.

Revenue (Gap)/Surplus at Existing Tariffs

Petitioner's Submission

5.3 The Petitioner has estimated revenues from sale of power during the first Control Period based on the energy sales estimate (Table 12) and category wise billing rate for FY07.

5.4 The following table shows the category wise revenue during the Control Period at the existing billing tariff of FY07.

Table 54: Proposed Revenue Realisation at Existing tariff for Control Period (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Domestic					
Single Delivery Point	20.44	22.17	24.05	26.09	28.30
Separate Delivery Point	31.34	31.86	32.39	32.92	33.47
Domestic Power	7.59	7.29	7.00.	6.72.	6.46
Total	59.37	61.32	63.44	65.74	68.24
Non Domestic					
Single Phase	24.48	24.71	24.94	25.17	25.41
Three Phase	94.39	100.92	107.90	115.37	123.36
Total	118.89	125.63	132.84	140.54	148.76
Mixed Load					
Supply at 11 KV (HT)	195.14	207.81	221.31	235.68	250.98
Supply on LT where supply is given from NDMC sub station	4.36	4.25	4.14	4.03	3.93

Particulars	FY07	FY08	FY09	FY10	FY11
Supply on LT where applicant provides built up space for sub station	118.10	120.70	123.35	126.06	128.84
Total	317.60	332.76	348.80	365.78	383.75
Small Industrial Power	0.14	0.14	0.15	0.16	0.16
Public Lighting	2.89	2.95	3.01	3.08	3.14
Others	0.81	0.84	0.84	0.84	0.84
Total	499.68	523.65	549.09	576.14	604.89
Revenue from sale of power	499.68*	523.65**	549.09	576.14	604.89

* Net of 4% Electricity Tax

** Net of 4.5% Electricity Tax. For Rest of the Control Period, Electricity Tax is assumed at 5%.

5.5 Based on the Annual Revenue Requirement estimated for the Control Period and the Revenue realization at the existing tariff, the Petitioner has projected Revenue Gap /(Surplus) for the Control Period as summarized in the table below.

Table 55: Proposed Revenue (Gap)/ Surplus (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
ARR	466.38	804.51	840.06	884.99	930.85
Revenue at Existing Tariff	494.48	553.22	580.13	608.74	639.16
Revenue from sale of Surplus Power	-	190.00	189.25	187.64	184.97
Revenue (Gap)/Surplus	28.10	(61.29)	(70.68)	(88.61)	(106.72)

Commissions Analysis

5.6 The Commission has determined the aggregate revenue requirement of the Petitioner for the Control Period, as mentioned in Chapter 4 of this Order. The summary of the approved ARR is shown below.

Table 56: Approved ARR for NDMC (Rs Cr)

Particulars	FY08	FY09	FY10	FY11
ARR for the Control Period	408.46	443.04	487.55	579.78
Surplus of FY07	21.89			
Net Revenue Requirement	**386.57**	**443.04**	**487.55**	**579.78**

5.7 The Commission has analyzed past sales trends for NDMC and has forecasted slab-wise sales for each consumer category for the Control Period to project revenue from existing tariff as it is required to be estimated to assess whether the annual revenue requirement is met with the existing tariff at the approved sales. If a revenue gap exists, the same needs to be bridged by means such as increase in tariff support from the Government etc.

5.8 The Commission's estimate of the revenues from sale of power for FY08 and FY09 at existing tariffs is tabulated below.

Table 57: Revenue (Gap)/Surplus at existing tariffs for FY08 and FY09 (Rs Cr)

Particulars	FY08	FY09
Aggregate Revenue Requirement	386.57	443.04
Revenue at existing tariffs	500.06	516.28
Revenue (gap)/ Surplus	**113.49**	**73.24**

Treatment of Revenue (Gap)/Surplus

Petitioner's Submission

5.9 The Petitioner has projected revenue surplus of Rs 28.10 Cr for FY07 and revenue gap of Rs 61.29 Cr, Rs 70.68 Cr, Rs 88.61 Cr and Rs 106.72 Cr for FY08, FY09 and FY10 and FY11 respectively and proposed to cover revenue gap through Additional Revenue from proposed tariff revision in FY08, FY09, FY10 and FY11.

Table 58: Proposed Revenue Gap/ (Surplus) (Rs Cr)

Particulars	FY07	FY08	FY09	FY10	FY11
Revenue Gap/(Surplus)	(28.10)	61.29	70.68	88.61	106.72
Cumulative Revenue Gap		327.3			
Additional Revenue @ Proposed Tariff		38.73	84.06	136.99	198.65

5.10 To bridge the revenue gap during the Control Period the Petitioner has proposed to increase the tariff by 7% year on year across all categories for the Control Period. The Tariff Proposal submitted by the Petitioner for various consumer categories in its area is given below in the table.

Table 59: Proposed Category wise Tariff for the Control Period (Rs/kWh)

	Existing	Proposed			
Particulars	FY07	FY08	FY09	FY10	FY11
Domestic					
Single Delivery Point	3.20	3.42	3.66	3.92	4.19
Separate Delivery Point	2.47	2.64	2.83	3.03	3.24
Domestic Power	3.59	3.84	4.11	4.40	4.71
Non Domestic					
Single Phase	5.00	5.35	5.72	6.13	6.55
Three Phase	5.42	5.80	6.21	6.64	7.10
Mixed Load					
Supply at 11 KV (HT)	6.06	6.48	6.94	7.42	7.94

	Existing	Proposed			
Particulars	FY07	FY08	FY09	FY10	FY11
Supply on LT where supply is given from NDMC sub station	7.26	7.77	8.31	8.89	9.52
Supply on LT where applicant provides built up space for sub station	6.13	6.56	7.02	7.51	8.04
Small Industrial Power	4.10	4.39	4.69	5.02	5.37
Public Lighting	3.59	3.84	4.11	4.40	4.71
Others	3.59	3.84	4.11	4.40	4.71

Commission's Analysis

5.11 The Commission has analysed revenue realized at the existing tariffs as well as net revenue requirement for the Petitioner and has observed that the Petitioner would be revenue surplus in FY08 and FY09 at existing tariffs i.e. there is no requirement for increase in existing tariff as the Petitioner would be able to recover its net revenue requirement for FY08 and FY09 through existing tariff.

5.12 In view of the above, the Commission has retained tariffs for the Energy Charges to be charged by the Petitioner in the FY08 and FY09 at the existing tariff levels for all the categories.

5.13 Further, the Commission has observed that as per the current tariff schedule there are no fixed charges levied on the consumers under the NDMC area. Several stakeholders during the Public Hearing of BRPL, BYPL and NDPL have also raised objections about fixed charges being not levied in the NDMC area, whereas, consumers of the other DISCOMs are liable to pay fixed charges.

5.14 The Commission also notes that the current practice of levying Monthly Minimum Charges (MMC) could lead to under-recovery of fixed cost in cases where the consumption exceeded certain minimum levels, as only energy charges would be levied in such cases.

5.15 Secondly, whenever a consumer is connected to the system, the utility has to provide/allocate certain capacity of the distribution system to serve the consumer. In addition to this, some expenses such as meter reading, billing, bill delivery, maintenance etc. are fixed in nature and independent of energy consumption. Ideally, the fixed charges levied on the consumer should reflect the cost of such capacity requirements of the consumer after considering the fixed cost of such system and diversity of load in the system.

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

5.17 The Commission had already introduced fixed charges for most of the categories to recover certain component of the fixed costs for other distribution licensees namely BRPL, BYPL and NDPL.

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

5.19 Thus, as a part of the Tariff rationalization measure the Commission has proposed to replace Monthly Minimum Charges (MMC) with Fixed Charges from 1 April 2008 onwards for all categories.

5.20 The Commission is of the opinion that the best method of levying fixed charges is on the basis of the sanctioned load, as other options do not representatively reflect the cost of providing the capacity requirements of the consumer.

5.21 Given the constraints of lack of accurate data about sanctioned load of different consumer categories slab-wise, the Commission is unable to project the revenue that can be generated by levying the fixed charges on the consumers in the NDMC area. Thus, the Commission has proposed to levy Fixed Charges at nominal rate of Rs 2/kW/Month on Domestic, Non-Domestic, SIP and Others category.

5.22 Mixed load category, however, would be levied Demand Charges as per existing tariff schedule.

5.23 **The Commission hereby directs the Petitioner to record revenue collected on account of fixed charges and energy charges separately and submit the same along with slab-wise number of consumers and sanctioned load within six months of issue of this Order, so that the Commission can take appropriate steps to rationalise tariff structure for NDMC consumers in the subsequent Tariff Orders.**

5.24 **The Commission further directs the Petitioner that the estimated surplus revenue realised in FY08 and FY09 of Rs. 113.49 Cr and Rs. 73.24 Cr respectively to be transferred to MYT Contingency reserve.** The Petitioner is directed to maintain separate accounts in their books and reflect the balance in the

Contingency Reserve Account in the balance sheet. There shall be yearly additions and drawls to/from these Contingency Reserve accounts based on the annual review and performance of the Petitioner. Funds under the MYT Contingency Reserve shall be kept in a separate bank account and shall be effectively invested and managed to earn returns based on market conditions ensuring adequate liquidity. This fund shall not be utilized for speculative purposes. The use of these funds in any other manner shall be only with the prior approval of the Commission.

Tariff Schedule

	Category	Fixed/Demand Charges [1]	Energy Charges
1	**Domestic Lighting & Fan and Power on**		
1.1	**Single Delivery Point [2]**		
	LifeLine up to 50 units	2 Rs /kW/month	125 Paise/kWh
	0-100 units	2 Rs /kW/month	150 Paise/kWh
	101-200 units	2 Rs /kW/month	210 Paise/kWh
	201-400 units	2 Rs /kW/month	300 Paise/kWh
	Above 400units	2 Rs /kW/month	360 Paise/kWh
1.2	**Separate Delivery Points/Meters**		
a	Lighting/Fan	2 Rs /kW/month	Same as in 1.1
b	Power	2 Rs /kW/month	360 Paise/kWh
2	**Non Domestic**		
2.1	**Non Domestic (Low Tension)**		
a	Single Phase (<= 5kW)	2 Rs /kW/month	440 Paise/kWh
b	Three Phase (>= 5kW)	2 Rs /kW/month	500 Paise/kWh
2.2	**Mixed Load (High Tension) – Sanctioned Load >100 kW**		
a	Supply at 11 kV (HT)	150 Rs/kVA/month	390 Paise/kVAh [3]
b	Supply on LT (400 Volt, where supply is given from NDMC sub-station)	200 Rs/kVA/month	465 Paise/kVAh
c	Where applicant provides built up space for sub-station	Tariff for Supply on 11 kV as above plus 10%	
3	**Small Industrial Power [4]**	2 Rs /kW/month	410 Paise/kWh
4	**Public Lighting**	Maintenance Charges @ Rs 60/ month/ Street lighting point	360 Paise/kWh
5	**Railway Traction [5]**		
a	Supply on 11 kV	150 Rs/kVA/month [6]	340 Paise/kVAh
b	Supply on LT (400 volts)	200 Rs/kVA/month [6]	425 Paise/kVAh
6	**Temporary Supply**		
6.1	For a total period of		
A	Less than 16 days	50% of the relevant category	higher by 50% (temporary surcharge) of the relevant category of tariff
B	More than or equal to 16 days	same as that of relevant category	higher by 50% (temporary surcharge) of the relevant category of tariff
6.2	For religious functions of traditional and established characters and cultural activities	Same as 1.1	Same as 1.1 without temporary surcharge
6.3	For major construction projects	Same as that of relevant category	Same as that of relevant category with temporary surcharge of 50%

Notes of Superscripts:

[1] For all categories other than Domestic, Fixed/Demand charges are to be levied on sanctioned load or MDI reading, whichever is higher, on per kW or part thereof basis. Where the MDI reading exceeds contract demand by more than 5%; a surcharge of 30% shall be levied on the fixed/demand plus energy charges for such billing cycle only.

[2] The entitlement of various slabs under domestic category shall be worked out on pro-rata basis depending upon the duration of the billing cycle.

[3] 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 at 220 kV.

[4] For Industrial consumers having valid NDMC licensee

[5] Tariffs for Northern Railways Traction are based on the supply being given through a single delivery and metering point at single voltage. An additional capacity blockage charges are also applicable to be calculated as Rs 1260 x (2.97A + 5) where A is contract/maximum demand, whichever is higher, in MVA subject to a minimum of Rs 25000.

[6] The simultaneous maximum demand, for all metering points, shall be considered for levying demand violation charges.

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.

Surcharges

All surcharges shall be levied on the basic tariff applicable to the category of use or category of sanction, whichever has higher tariff.

Billing in kVAh

Wherever the fixed/ demand/ energy charges are specified in Paisa per kVAh, for the purpose of billing the kVAh as read from the meter shall be used.

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, 2003. This will also apply to temporary connections, where payment of final bill amount after adjustment of consumption deposit, is not made by due date.

The Commission directs the Petitioner, that in case the bill for consumption of electricity is more than Rs. 4,000, payment for the bill shall only be accepted by the Petitioner by means of an Account Payee cheque/DD.

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 the Commission's decision thereon shall be final and binding.

Annexure I

ADMITTANCE ORDER OF NDMC

Delhi Electricity Regulatory Commission

Viniyamak Bhawan. 'C' Block. Shivalik. Malviya Nagar. New Delhi -17

Petition No. 54/2007

In the matter of: Approval of Aggregate Revenue Requirement (ARR) for the Multi Year Tariff 2007-11 and the determination of retail Tariffs to be charged by New Delhi Municipal Council (NDMC) for the electricity.

AND

In the matter of:

New Delhi Municipal Council

Through its: **Secretary**,

Palika Kendra, Sansad Marg,

New Delhi-110 001. **...Petitioner**

Coram:

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

Appearance:

1. Sh. S. M. Ali, Director(Commercial), NDMC;
2. 2. Sh. Vivek Sharma, CRISIL;
3. Sh: Sidharth Mehta, CRISIL.

ORDER

(Date of Hearing: 07.11.2007)

(Date of Order: 08 .11.2007)

1. The New Delhi Municipal Council (NDMC) which is a deemed licensee has filed an Aggregate Revenue Requirement and Multi Year Tariff petition with the Commission on 01.11.2007. The petition No. 54/2007 was listed for admission and hearing on 7.11.07.

2. After going through the submissions and prayers made in the petition and at the time of hearing, the Commission observed that the petition filed by NDMC is incomplete, defective and not prepared in accordance with the Delhi Electricity Regulatory Commission (Terms and Conditions for determination of Wheeling Charges and Retail Supply Tariff) Regulations, 2007. Some of the major deviations/deficiencies which have been observed in the petition are given below: -

a) The petitioner has not estimated the AT&C Loss as per the Commission's MYT Regulations for any of the years during the control period. Instead, the Petitioner has estimated Transmission and Distribution losses at 11 .5% during the control period. The Petitioner has to draw up the petition in the manner prescribed in the Regulations and clearly indicate the AT&C Loss reduction as per the parameters of the Regulations. The AT&C Loss target should indicate some co-relation with the proposed Capital Expenditure and the Business Plan. In the petition, the Petitioner has stated that their Distribution system is fairly efficient and with the added capital expenditure they should be able to incrementally bring down the A T&C Loss Levels from what has been proposed in the said Petition.

b) The Petitioner has not proposed the base line and performance trajectory for all quality parameters as per the Regulations and therefore, directed to include the trajectory in the prescribed format so that the Petitioner is able to meet the performance standards as specified in the Electricity Supply Code of the Commission.

c) The Petitioner has not submitted the details of the Business Plan in accordance with the provisions of Clause 8.3 of the Multi Year Tariff Regulations. The Business Plan, which has been incorporated in the Petition, is very nascent and does not contain any details with regard to the manner in which these plans have been drawn and it is also not associated with the load growth which the Petitioner is expecting over the Control Period. The Commission has already issued instructions to the Petitioner on the subject matter which have not been answered by the Petitioner so far. The Petitioner is directed to take appropriate steps for filing the requisite details with the Commission.

d) After going through the Petition, it has also been observed that the Petitioner has not complied with the instructions and directives issued by the Commission in the previous Tariff Orders and continued with the same deficiencies in this Petition as well.

e) It has also been observed that the Petitioner has neither submitted the audited financial statement for any of the previous years nor there is any provisional statement for the F. Y. 2006-07. Instead, the entire provisions are laid down on the foundation of Commission's Tariff Order for FY 2006-07.

f) Sh. S. M. Ali, Director (Commercial), appearing on behalf of the Petitioner, has submitted that they are in the process of finalising the Double Entry Accounting and they would try to furnish all relevant data and submit the relevant accounts to the Commission shortly. The Commission has expressed its unhappiness and observed that it has been hearing about such commitments from the Petitioner over the last couple of years, but, nothing concrete has been furnished by the Petitioner so far. The Commission would at least like to see the Municipal Accounting Manual based upon which the Petitioner is preparing the financial statement.

g) After going through the various heads of expenses, it has been observed that there are inconsistencies in the manner in which all the expenses have been allocated, especially with regard to the Civil

Engineering Department and Administrative and General expenses. It has been observed that various components of A&G expenses have been incorrectly stated in the written statement and they do not match with the table given in the Petition. It has been further observed that certain expenses which should be capitalised, have been incorporated in Repair & Maintenance Expenses which should be appropriately dealt with.

h) The Petitioner has also not specified the proposed tariff for each consumer category, slab-wise and voltage wise. Since, this Petition is not merely a Petition for Aggregate Revenue Requirement and is also a Petition for seeking tariff from this Commission, the Petitioner is expected to clearly indicate the exact tariff proposed from each category of consumers and the slab which would be given to various consumers. It is also observed that the Petitioner has not made any proposal based upon the cost of service model which would allocate the cost of business to each category of consumers based on voltage wise cost.

i) It is further observed that the petition does not indicate the progressive reduction of cross subsidy and the application is at variance with the Regulations which stipulate that the proposed tariff should progressively reflect the cost of supply to each consumer category.

j) The Commission would also like the Petitioner to segregate their ARR for the Wheeling Business and Retail Supply Business as per the formats under the Regulations.

k) It has also been observed that the various formats which have been submitted alongwith the petition contain a lot of inconsistencies. The formats are not complete in all respects, there is data deficiency and the data given does not correlate with each other. Furthermore, the

Petitioner has not furnished various formats prescribed under Regulations. It is also noticed that the Petitioner has neither prayed for an exemption from furnishing those data nor they have explained the absence of such data. The Petitioner should clearly indicate and furnish the entire data as prescribed in the formats in the Regulations. Wherever data is not available or is not pertinent to the petition, the Petitioner should make a specific mention thereto.

l) The Commission has also observed that the Petition contains a figure of Rs. 33 crore which is indicated as surplus in the Year 2006-07. However, it is observed that this figure has not been adequately reflected in their Petition and tariff figures have not been adjusted. In view of the available surplus, the Petitioner is directed to reconsider the figure in their Tariff calculation and accordingly, Table 22 of the Petition has to be corrected.

m) It has been observed that the Petitioner has proposed calculation based upon market rent of various sub-stations, electricity offices and service stations. The Commission feels that this presumption is not as per the norms which have been practiced in this sector.

n) It has also been observed that UI transactions which have resulted in revenue of approximately Rs. 110 crore till the 27th week of 2007-08, have not been adequately indicated in the Petition as revenue available to the Petitioner. The Petitioner is directed to recalculate these revenues and project the amount accordingly for the control period.

o) It has also been observed that the Petitioner has indicated total capital expenditure of approximately Rs.550 crore without proposing any borrowing during the control period. In case the entire funding is to be given by the Government in the form of equity/ grant / debt etc., treatment of such capital expenditure will have to be reconsidered as per the Regulations.

3. The Petitioner has been heard at some length with regard to the prayers made and it is felt that considering the various data deficiencies, the Petitioner has to revise the prayer clause in accordance with the deficiencies as pointed out in this order. With the above observations the petition for Aggregate Revenue Requirement and Multi Year Tariff Determination is admitted. The Petitioner is directed to submit all requisite information and details as discussed above, within a period of 10 days from the issue of this Order, alongwith a draft public notice.

4. Ordered accordingly.

Sd/-	Sd/-
(K. Venugopal)	(Berjinder Singh)
MEMBER	CHAIRMAN

Annexure II

PUBLIC NOTICE ISSUED BY NDMC IN ENGLISH, HINDI AND URDU NEWSPAPERS ON 12TH DECEMBER 2007 AND 22ND DECEMBER 2007 RESPECTIVELY

Times of India – 12 December, 2007

NEW DELHI MUNICIPAL COUNCIL

Palika Kendra, Sansad Marg, New Delhi-110001

Website: http://www.ndmc.gov.in/home.htm

PUBLIC NOTICE – REQUEST FOR PUBLIC RESPONSE

Petition for Approval of Aggregate Revenue Requirement (ARR) & Determination of Multi Year Tariff for Distribution (Wheeling & Retail Supply Business) for FY 2007-08 to FY 2010-11.

1. New Delhi Municipal Council(hereinafter referred to as "NDMC") had filed the Petition on 31.10.2007 for Aggregate Revenue Requirement (ARR) and Multi Year Tariff for Distribution (Wheeling & Retail Supply) Business for FY2007-08 to FY2010-11 in terms of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 and for truing up of costs and revenue upto end of FY2006-07 before the Delhi Electricity Regulatory Commission for deliberation and Orders under the provisions of the Electricity Act, 2003 and the Delhi Electricity Reform Act, 2000 to the extent applicable. The Commission after having sought some information and clarification through first hearing has admitted the Petition on 08.11.2007.
2. The salient features of the petition are provided below:

	SALIENT FEATURES		Projections in Rs. Lakh				
	Particulars	Unit	2006-07	2007-08	2008-09	2009-10	2010-11
A	Energy Input into the system	MU	1154.22	2297.92	2297.92	2297.92	2297.92
B	Energy Required (including Transco losses)	MU	1154.22	1203.81	1256.66	1312.79	1372.40
C	AT&C Loss Trajectory	%	11.50%	11.25%	11.00%	10.75%	10.50%
D	Energy available for Sale	MU	1013.01	1059.83	1109.48	1162.29	1218.46
E	Surplus Power	MU	0.00	1094.11	1041.26	985.13	925.52
F	Expenditure other than Power Purchase Cost	Rs. Lakh	13396.53	16892.09	20341.52	22426.62	24949.52
G	Average Power Purchase Cost	Rs./Kwh	2.57**	2.71	2.84	2.97	3.12
H	Power Purchase Cost at Average Power Purchase Cost	Rs. Lakh	32923.42	63885.31	66789.65	69916.47	73282.81
I	Total Expenditure (F+H)	Rs. Lakh	46319.95	82777.39	87131.18	92343.09	98232.32
J	ROCE + Supply Margin including interest	Rs. Lakh	1197.64	2177.62	3004.89	4106.61	4756.51
K	Non-Tariff Income	Rs. Lakh	580.02	309.48	321.86	334.74	348.13
L	Aggregate Revenue Requirement (I+J-K)	Rs. Lakh	46837.57	84645.54	89814.20	96114.96	102640.70
M	Estimated Revenue Billed (excluding E Tax)	Rs. Lakh	49447.64	55321.95	58012.45	60874.34	63915.68
N	Estimated Revenue Realization based on existing Retail Supply tariff	Rs. Lakh	49447.64	55321.95	58012.45	60874.34	63915.66
O	Revenue from UI Transactions			19000.00	18925.14	18763.62	18456.69
P	Surplus /(Gap) at Existing Tariff (N+O-L)	Rs. Lakh	2,810.06	(10,323.59)	(12,875.61)	(16,476.99)	(20,228.32)
Q	Net Revenue Gap (P)	Rs. Lakh	2,810.06	(10,323.59)	(12,875.61)	(16,476.99)	(20,228.32)
R	Cumulative Revenue Gap	Rs. Lakh	2,810.06	(7,513.53)	(20,389.14)	(36,866.13)	(57,094.45)

**Rate is in Rs/Kwh

In the petition, NDMC has made a few deviations from the Delhi Electricity Regulatory Commission (Terms and Conditions for determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 and requested the Commission for relaxations. A major deviation is the inability to meet prescribed AT&C loss reduction target in the Regulations. NDMC has proposed to achieve AT&C loss level of 10.50% at the end of FY 2011 as against 10% prescribed AT & C loss level by the Commission.

Performance of New Delhi Municipal Council during FY 2006-07

- NDMC incurred a capital expenditure of Rs. 1103.30 Lakh including the ongoing works of Rs 8.36 Lakh. New investments were to the tune of Rs. 108.30 Lakh and other miscellaneous works to the amount of Rs. 157 Lakh on a provisional basis.
- The standard of electricity supply was maintained in NDMC area during FY 2006-07 with the overall Reliability index more than 99%.
- The current peak demand of NDMC area is 295 MW which is likely to enhance upto 450 MW by the year 2010. In order to meet the projected peak demand in future, extensive augmentation works at all voltage levels will be required.
- NDMC submits that during the FY 2006-07, category wise load shedding was almost nil and proposes the same in the future.
- NDMC submits that during the FY 2006-07, number of overloaded feeders at 33 KV as well as 11 KV was almost nil and proposes the same in the future.

Proposals by NDMC

- NDMC is proposing a capital expenditure to the tune of Rs. 550 Crore during the next five years for system improvement in terms of reliable power supply, reduction of AT&C losses, system augmentation, metering arrangements, Repair and Maintenance works etc.
- NDMC proposes two substations with aggregate transformation capacity of 540 MVA at Harish Chandra Mathur Lane and Trauma Centre, primarily for meeting the load demand. Three 66 KV substations are proposed to be established at B.D. Marg, State Guest House and Bapu Dham. Two new 66 KV grid feeder, one from Park Street to School Lane and other from Park Street to Vidyut Bhawan would be laid on urgent basis. Besides these work, 20 MVA and 50 MVA Power Transformers are required to be installed at Vidyut Bhawan and one 20 MVA at School Lane.
- NDMC proposes new grid substations at Church Gate, Raja Bazaar, Sanjay camp and Constitutional Club upto 2009-10. Thereafter, additional 33 KV grid substations at Arjun Camp, Aliganj and Connaught Place shall be installed. Old 33 KV feeders from IP station and Park Street are also proposed to be replaced besides replacement of 33 KV switchgears at some of the grid sub stations.
- NDMC proposes major augmentation works to be executed at 11 KV and LT level to bring the system to reliable and safe operating conditions.
- NDMC proposes to continue the present Consumer categories and the slabs without any change for the control period.

- NDMC proposes to continue the present Consumer categories and the slabs without any change for the control period.
- NDMC proposes the following tariff during the control period.

S.No.	Category wise Tariff (Rs/kwh)	Existing	% Annual escalation*	Proposed Tariff			
		2006-07	proposed	2007-08	2008-09	2009-10	2010-11
1	Domestic Lighting & Fan & Power On						
1.1	*Single Delivery Point*						
	Life line up to 50 units	1.25	7%	1.34	1.43	1.53	1.64
	0-100	1.50	7%	1.61	1.72	1.84	1.97
	101-200	2.10	7%	2.25	2.40	2.57	2.75
	201-400	3.00	7%	3.21	3.43	3.68	3.93
	Above 400	3.60	7%	3.85	4.12	4.41	4.72
1.2	*Separate Delivery Point / Meters*						
	Lighting / Fan	Same rate as in 1.1	7%	Same rate as propose in 1.1			
	Power	3.60	7%	3.85	4.12	4.41	4.72
2	Non Domestic (Low Tension)						
2.1	Single Phase (<= 5KW)	4.40	7%	4.71	5.04	5.39	5.77
	Three Phase (> 5KW)	5.00	7%	5.35	5.72	6.13	6.55
2.2	*Mixed Load (High Tension)*						
	Supply at 11 KV (HT)	3.90	7%	4.17	4.47	4.78	5.11
	Supply on LT where supply is given from NDMC sub Station	4.65	7%	4.98	5.32	5.70	6.10
	Supply on LT where applicant provides built up space for sub station	1.65	7%	1.77	1.89	2.02	2.16
3	Small Industrial Power	4.10	7%	4.39	4.69	5.02	5.37
4	Public Lighting	3.60	7%	3.85	4.12	4.41	4.72
5	Railway Traction						
	Supply on 11 KV	3.40	7%	3.64	3.89	4.17	4.46
	Supply on LT (400 volts)	4.25	7%	4.55	4.87	5.21	5.57
6	Temporary Supply						
6.1	Less than 16 days More than or equal to 16 days	Higher by 50% of the relevant category of tariff	Accordingly	Higher by 50% of the relevant category of tariff			
6.2	For religious functions	Same as 1.1 without temporary surcharge	Accordingly	Same as 1.1 without temporary surcharge			
6.3	For major construction projects	Same as that of relevant category with temporary surcharge	Accordingly	Same as that of relevant category with temporary surchare			

NDMC has proposed a 7% year to year increase in the tariff for each year of the MYT control period from FY 08 to FY11.

In accordance with the provisions of the Delhi Electricity Regulatory Commission Comprehensive (Conduct of Business) Regulations, 2001 notified by the Commission, the consumers and stake holders are requested to submit the response on the above petition. Responses in triplicate may be sent to the Secretary of the Commission at the following address by 20.12.2007. The responses may be submitted personally or by post to the Commission. The responses can also be e-mailed to the Secretary, DERC at the e-mail address mentioned below.

Delhi Electricity Regulatory Commission,
Vinayamak Bhawan, C-Block, Shivalik,
Malviya Nagar, New Delhi-110017
Email id: secyderc@nic.in

2. The Commission would hold public hearing with the responding stakeholders subsequently. The date of the public hearings shall be notified separately by the Commission.
3. A copy of the Petition could be purchased from the office of Accounts Officer (Commercial), Room No. 1905, Palika Kendra, Sansad Marg, New Delhi-110001 on any working day from 12.12.2007 to 18.12.2007 between 11:00 am to 2:00 pm on payment of Rs 25/- either by cash or by Demand Draft/Pay order in favour of NDMC payable at New Delhi.

Address of the Head Office of the Petitioner
NEW DELHI MUNICIPAL COUNCIL
PALIKA KENDRA, SANSAD MARG, NEW DELHI-110001

4. The Complete Petition and subsequent clarifications submitted to the DERC are available on our website as well as the website of the Commission (http://www.derc.gov.in). Copy of the Petition is also available for inspection at our Head Office as well as at the Commission's office at the addresses provided herewith, on any working day between 11:00 am to 4:00 pm.

SECRETARY

Navbharat Times – 12 December, 2007

सार्वजनिक सूचना – जन प्रतिक्रिया हेतु अनुरोध

वित्त वर्ष 2007–08 से वित्त वर्ष 2010–11 तक के लिए वितरण

(व्हीलिंग [illegible] रिटेल सप्लाई व्यवसाय) हेतु बहुवर्षीय शुल्क–दर के निर्धारण तथा समग्र राजस्व अपेक्षा

(एआरआर) की स्वीकृति हेतु याचिका

[illegible]

Milap – 12 December, 2007

نئی دلی میونسپل کونسل

پالیکا کیندر، سنسد مارگ، نئی دلی 110001

http://www.ndmc.gov.in/home.htm

اطلاع عام ۔ عوام کے ردعمل کیلئے درخواست

مالی سال 08-2007 سے مالی سال 11-2010 کے دوران تقسیم (وھیلنگ اور خوردہ سپلائی) کاروبار کیلئے

وسطا مالیہ ضروریات (اے آر آر) کی توثیق کیلئے عرضی

	تفصیلات	یونٹ	2006-07	2007-08	2008-09	2009-10	2010-11
A	[illegible]	MU	1154.20	2297.52	2297.52	2297.92	[illegible]
B	[illegible]	MU	1154.20	1203.81	1256.60	1312.79	[illegible]
C	[illegible]	%	11.63%	11.26%	11.09%	10.76%	[illegible]
D	[illegible]	MU	1013.01	1055.63	1109.45	1162.29	[illegible]
E	[illegible]	MU	3.06	1094.11	1041.20	865.13	[illegible]
F	[illegible]	[illegible]	13395.59	16852.69	20341.52	22626.62	[illegible]
G	[illegible]	[illegible]	2.67	2.71	2.84	2.97	[illegible]
H	[illegible]	[illegible]	32923.47	53846.21	66783.61	69910.47	[illegible]
I	[illegible]	[illegible]	46319.55	57777.39	67131.10	92343.09	[illegible]
J	[illegible]	[illegible]	1197.68	2177.20	3004.65	4156.63	[illegible]
K	[illegible]	[illegible]	660.00	[illegible]	321.61	334.74	[illegible]
L	(H+J-K)	[illegible]	46637.97	54643.54	69614.20	96114.96	[illegible]
M	[illegible]	[illegible]	49447.64	55321.65	58013.45	60674.34	[illegible]
N	[illegible]	[illegible]	49447.64	55321.65	58013.45	60674.34	[illegible]
O	[illegible]			16030.00	16605.14	18763.62	[illegible]
P	(N+O-L)	[illegible]	2,810.06	(10,323.59)	(12,675.61)	(16,479.89)	[illegible]
Q	[illegible]	[illegible]	2,810.06	(10,323.59)	(12,675.61)	(16,479.89)	[illegible]
R	[illegible]	[illegible]	2,810.06	(7,513.53)	(22,389.14)	(36,866.13)	[illegible]

Times of India – 22 December, 2007

NEW DELHI MUNICIPAL COUNCIL
PALIKA KENDRA: NEW DELHI
DATE EXTENSION NOTICE

Sub: Public Notice - request for public response.
Petition for approval of Aggregate Revenue Requirement (ARR) and determination of Multi Year Tariff for distribution (Wheeling and Retail Supply Business for FY 2007-08 to 2010-11.

Public response was invited upto 20.12.07 for the subject, cited above. Now as per directions of DERC the date for receipt of Public Response is extended for another 15 days i.e. upto 7.01.08. A copy of the petition could also be purchased from the office of Accounts Officer (Comml.), Room No. 1905, Palika Kendra, Sansad Marg, New Delhi on any working day from 24.12.2007 to 7.01.2008 between 11.00 a.m. and 2.00 p.m. on payment of Rs. 25/- either by cash or by Demand Draft / Pay Order in favour of Secretary, NDMC, New Delhi.
The other matter shall remain unchanged.

22/12/07

Sd/- Secretary
NDMC, Palika Kendra
Sansad Marg, New Delhi

Navbharat Times – 22 December, 2007

नई दिल्ली नगरपालिका परिषद्
पालिका केन्द्र : नई दिल्ली

तिथि बढ़ाने की सूचना

विषय : सार्वजनिक सूचना- जनप्रतिक्रिया हेतु अनुरोध

वित्त वर्ष 2007-08 से वित्त वर्ष 2010-11 तक के लिए वितरण (व्हीलिंग एवं रिटेल सप्लाई व्यवसाय) हेतु बहु वर्षीय शुल्क दर के निर्धारण तथा समग्र राजस्व अपेक्षा (एआरआर) की स्वीकृति हेतु याचिका

उपरोक्त उल्लेखित विषय हेतु 20.12.07 तक जनप्रतिक्रिया आमंत्रित की गई थी। अब, डीईआरसी के निर्देशानुसार, जनप्रतिक्रिया प्राप्ति की तिथि 15 दिनों यथा 7.01.08 तक के लिए बढ़ाई जा रही है। याचिका की प्रतिलिपि सचिव, न.दि.न.प., नई दिल्ली के पक्ष में देय डिमांड ड्राफ्ट/पे आर्डर द्वारा अथवा नकद रु. 25/- के भुगतान पर लेखा अधिकारी (कार्मि.) कमरा नं. 1905, पालिका केन्द्र, संसद मार्ग, नई दिल्ली के कार्यालय से किसी भी कार्य दिवस पर 24.12.07 से 07.01.08 तक, पूर्वा. 11.00 बजे से अप. 2.00 बजे के बीच क्रय की जा सकती है।

अन्य विषय वस्तु यथावत रहेंगी।

हस्ता./-
सचिव
न.दि.न.प., पालिका केन्द्र
संसद मार्ग, नई दिल्ली

22/12/07
Navbharat
Times

Milap – 22 December, 2007

نئی دلی میونسپل کونسل

پالیکا کیندر: نئی دلی

تاریخ میں توسیع بارے اطلاع

موضوع: پبلک نوٹس، عوامی ردعمل کیلئے درخواست۔

مالی سال 2007-08 سے 2010-11 تک کیلئے، وھیلنگ اینڈ ریٹیل سپلائی

بزنس؛ تقسیم کیلئے کثیر ساله ٹیرف کے تعین اور اوسط مالیہ ضرورت

(اے آر آر) کی منظوری کیلئے پٹیشن

[illegible] 20-12-2007 [illegible]

[illegible] 15 [illegible] 7-01-2008 [illegible]

[illegible] 1905 [illegible]

[illegible] 24-12-2007 [illegible] 7-01-2008 [illegible] 11.00 [illegible] 2.00 [illegible]

[illegible] 25/- [illegible]

[illegible]

[illegible]

سکریٹری، این ڈی ایم سی، پالیکا کیندر

سنسد مارگ، نئی دلی