

**BEFORE**

**THE**

**DELHI ELECTRICITY REGULATORY COMMISSION, DELHI**

**VOLUME – I**

**MAIN TEXT**

**PETITION**

**FOR**

**APPROVAL**

**OF**

**TRUE-UP FOR FY 2010-11,**

**ANNUAL PERFORMANCE REVIEW FOR FY 2011-12**

**AND**

**NEXT MULTI YEAR TARIFF PETITION (MYT) FOR FY 2013-15**

**Filed By**



**NEW DELHI MUNICIPAL COUNCIL**  
Palika Kendra, New Delhi-01

**FEBRAURY 2012**



**BEFORE THE DELHI ELECTRICITY REGULATORY COMMISSION**

Filing No: .....

Case No. : .....

IN THE MATTER OF      Petition/Application for Truing up of Expenses for FY 2010-11 read with Section 4.2 (f), Section 4.11, Section 4.16, Section 5.42 & Section 5.44 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 (hereinafter referred to as “**MYT Regulations,2007**”), Annual Performance Review of FY 2011-12 read with Section 8.4, Section 8.5, Section 8.7, Section 8.8, Section 8.9, Section 11.1, Section 11.2, Section 11.3, Section 11.4 and Section 13.4 of the **MYT Regulations,2007** and Aggregate Revenue Requirement for the MYT Period i.e. FY 2012-13 to FY 2014-15 (hereinafter referred to as “**Second Control Period**”) under Section 62 of the Electricity Act 2003 (hereinafter referred to as “**Act**”), Regulations 7.4 to 7.9, Regulations 10.1 to, 10.4, Regulation 11.1 and Regulation 12.4 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 (hereinafter referred to as “**MYT Regulations,2011**”).

AND

IN THE MATTER OF      New Delhi Municipal Council  
Palika Kendra, Sansad Marg,  
New Delhi - 110001  
(“THE PETITIONER”)



***The Petitioner respectfully submits as under:***

1. The present Petition is filed for:
  - a. Truing up of Expenses for FY 2010-11 as per the MYT Regulations, 2007,
  - b. Annual Performance Review of FY 2011-12 as per the MYT Regulations, 2007;  
and
  - c. Aggregate Revenue Requirement for the Second Control Period (FY 2012-13 to  
FY 2014-15) as per MYT Regulations, 2011.

In compliance with the MYT regulations applicable for the concerned years mentioned above.

2. **That the Petitioner is submitting the compliance to the directives issued by the Hon'ble Commission in its previous orders to the petitioner as a separate submission for consideration by the Hon'ble Commission.**
3. That the Petitioner (hereinafter referred to as "NDMC" or "Petitioner") 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.
4. That NDMC has the powers and obligations of a Licensee under the Indian Electricity Act 1910 in respect of the New Delhi area.
5. That under Section 200 of the New Delhi Municipal Council Act 1994, NDMC has the power 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.
6. That the Govt. of India notified the Electricity Act, 2003 on 10<sup>th</sup> June, 2003 repealing the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the E.R.C. Act, 1998. Among the tariff related provisions, the State Electricity Regulatory Commission (SERC) has to be guided by National Electricity Policy and National Tariff Policy. The generation, transmission and distribution tariff have to be determined separately. The Delhi Electricity Regulatory Commission (DERC) has framed Regulations specifying the terms



and conditions for determination of tariff. With the expiry of Policy direction period (2002-2007), the Delhi Electricity Regulatory Commission (hereinafter referred as “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.**

7. The First Control period of the MYT framework expired by the end of the FY 11. In the light of this, the Hon’ble Commission has convened a meeting with all the electricity distribution utilities in the National Capital Territory of Delhi on February 22, 2011 for extension of first MYT Control year for further one year, i.e. upto FY 12. The Honourable Commission subsequently issued a letter no. *F.3 (312)/Tariff/DERC/2011-12/4481 dated 24.02.2011*, intimating all the distribution utilities in Delhi for filing of ARR petition for the FY 12 and true up for the FY 10 as per the terms and conditions for determination of tariff for distribution of electricity under the first Multi Year Tariff (MYT) framework.
8. Accordingly the petitioner had filed its Petition before the Commission on March 10, 2011 for True Up of uncontrollable expenses for FY 2009-10 and for approval of Aggregate Revenue Requirement (ARR) and Wheeling and Retail Supply Tariff for all consumer categories for FY 2011-12 under Section 62, 64 and 86 of the Electricity Act, 2003, read with the MYT Regulations, 2007. The Commission took the petition on record on May 4<sup>th</sup> 2011 and issued the tariff order on 26<sup>th</sup> August 2011 for True-up of FY 2008-09, FY 2009-10 and ARR for FY 2011-12.
9. **The Hon’ble Commission has issued (Terms and Conditions for Determination of Wheeling Tariff & Retail Supply Tariff) Regulations, 2011 which shall come into force on April 1, 2012 and unless reviewed earlier or extended by the Commission shall remain in force for a period of three year from the date of commencement. The said regulations will be applicable for second control MYT period commencing from FY 2012-13 to FY 2014-15.**
10. In accordance with the aforesaid MYT Regulations, 2011 issued by the Hon’ble Commission for next control period and previous MYT Regulations, 2007, **NDMC** is submitting this Petition/Application for Truing up of Expenses for FY 2010-11 read with



Section 4.2 (f), Section 4.11, Section 4.16, Section 5.42 & Section 5.44 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2007 (hereinafter referred to as “**MYT Regulations,2007**”), Annual Performance Review of FY 2011-12 read with Section 8.4, Section 8.5, Section 8.7, Section 8.8, Section 8.9, Section 11.1, Section 11.2, Section 11.3, Section 11.4 and Section 13.4 of the **MYT Regulations,2007** and Aggregate Revenue Requirement for the MYT Period i.e. FY 2012-13 to FY 2014-15 (referred to as “**Second Control Period**”) under Section 62 of the Electricity Act 2003 (referred to as “**Act**”), Regulations 7.4 to 7.9, Regulations 10.1 to, 10.4, Regulation 11.1 and Regulation 12.4 of the Delhi Electricity Regulatory Commission (Terms and Conditions for Determination of Wheeling Tariff and Retail Supply Tariff) Regulations, 2011 (referred to as “**MYT Regulations,2011**”).

11. While submitting this Tariff Petition, NDMC has made efforts to adhere to most of the regulations framed by the Hon’ble Commission.

12. That this Petition includes the following documents:

- a. Affidavit verifying the Petition and the Power of Attorney for filing the same (attached in Volume I of this Petition).
- b. Demand Draft No. .... dated ..... drawn on ..... for an amount of Rs. 1,00,000/- towards filing fee.
- c. MYT Formats (Volume II of this petition)
- d. Soft copy of the Petition
- e. Provisional Accounts of New Delhi Municipal Council for FY 2010-11
- f. Budget Book of NDMC for FY 2012-13

13. That NDMC submits that it has completed the process of separation of accounts for the electricity distribution business under double entry regime. Currently the software implemented for segregation of accounts is in testing phase and NDMC envisaged the finalization & submission of separate accounts for FY 2011-12 as soon as the testing phase is completed, the exercise of finalization of accounts of New Delhi Municipal Council for FY 2010-11 has been completed and provisional accounts has been finalized. The same is attached as an Annexure-1 for consideration by Hon’ble Commission along with the copy of NDMC Budget Book containing the actual figures of FY 2010-11, revised



estimates of FY 2011-12 and FY 2012-13. The budget Book contains the details of expenditure and receipts of Electricity Department separately under segment code "81". Apart from the expenses mentioned under Electricity Department, the expense under general cost centers including Administration and Civil Engineering expenses will remain attributable to Electricity Department but the expenses towards the mentioned heads are not accounted in the segment code "81". Petitioner has considered the approved percentage for allocating the expenses incurred by Administration and Civil Engineering Department for computation of ARR. The balance sheet of New Delhi Municipal Council for FY 2010-11 is pending for signatures & audit from the auditor general and audited balance sheet will be available for review only after completion of audit exercise. While NDMC does not envisage any change in the provisional accounts. NDMC is submitting the petition on the basis of actuals of FY 2010-11 and nine months actuals of FY 2011-12.

14. NDMC requests the Hon'ble Commission to approve this Aggregate Revenue Requirement for FY 2013-15 under Multi-Year tariff regime, Review & Provisionally true up the expenses & revenue for FY 11-12 and True Up for FY 2010-11.

**PRAYER TO THE HON'BLE COMMISSION:**

- 15. The Petitioner 'New Delhi Municipal Council' prays that the Hon'ble Commission may be pleased to:**

- a. Admit and allow the Petition for the Aggregate Revenue Requirement for the MYT Period i.e. FY 2013-FY 2015, Truing Up of expenses for FY 2010-11 and Annual Performance Review of FY 2011-12 as submitted herewith.
- b. Approve Aggregate Revenue Requirement for the Second Control Period i.e. FY 2012-13 to 2014-2015.
- c. True up the expenses for FY 2010-11 and Review the performance of NDMC for FY 2011-12 under the MYT Regime (in terms of the MYT Regulations, 2007) on account of uncontrollable factors such as power purchase costs, energy sales, and other costs before the Hon'ble Commission.



- d. Take into account the latest Tariff orders, if any, issued by Appropriate Commission for the Generating and Transmission Companies from which the Petitioner draws power, while determining the power purchase and transmission costs of the Petitioner.
- e. To take a prudent view on the estimates of aggregate revenue requirement for FY 2012-13 to 2014-2015
- f. To approve the revision of tariff as proposed for different categories of consumers to recover the uncovered gap of NDMC.
- g. To grant any other relief as the Hon'ble Commission may consider appropriate.
- h. To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.
- i. To condone any error/ omission and to give opportunity to rectify the same.
- j. To permit the Petitioner to make further submissions, addition and alteration to this Petition as may be necessary from time to time.

Deponent

Secretary  
New Delhi Municipal Council  
Palika Kendra

**February 21, 2012**  
**New Delhi**



### Glossary of Terms

AAD	:	Advance Against Depreciation
A&G	:	Administration & General Expenses
ARR	:	Aggregate Revenue Requirement
AS	:	Accounting Standard
ASC	:	Additional Supply Charge
ATE/APTEL	:	Appellate Tribunal of Electricity
AT & C	:	Aggregate Technical and Commercial
CAGR	:	Compound Annual Growth rate
Capex	:	Capital Expenditure
CEA	:	Central Electricity Authority
CERC	:	Central Electricity Regulatory Commission
CGS	:	Central Generating Station
COD	:	Commercial Operation Date
Commission/DERC	:	Delhi Electricity Regulatory Commission
CPI	:	Consumer Price Index
DISCOM/NDMC	:	Distribution Utility
DS	:	Domestic Supply
EA 2003	:	Electricity Act, 2003
E-Tax	:	Electricity Tax
FY	:	Financial Year
GFA	:	Gross Fixed Assets
GoD	:	Government of Delhi
HT	:	High Tension
KVA	:	Kilo Volt Ampere
LPS	:	Late Payment Surcharge
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff



NDS	:	Non Domestic Supply
NTPC	:	National Thermal Power Corporation
O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PSL	:	Public Street Lighting
RoE	:	Return on Equity
RPO	:	Renewable Power Obligation
R&M	:	Repairs & Maintenance
SCL	:	Sanctioned Connected Load
SIP	:	Small Industrial Power
SLDC	:	State Load Dispatch Centre
T&D	:	Transmission & Distribution
UI	:	Unscheduled Interchange
VAR	:	Volt Ampere Reactive



### Annexures

Annexure – 1	:	Provisional Accounts of New Delhi Municipal Council for FY 2010-11
Annexure – 2	:	MYT Formats (Volume II of this petition)
Annexure – 3	:	Budget Book of NDMC for FY 2012-13
Annexure – 4	:	Soft copy of the Petition

#### Notes:

In this Petition:

- All currency figures used in this Petition, unless specifically stated otherwise, are in Rs Crores and energy figures are in Million Units (MUs).
- This petition contains the Main Text of the Petition, Formats and Annexures.
- Financial Year 2010- 2011 referred to as FY 11 or FY 10-11
- Financial Year 2011- 2012 referred to as FY 12 or FY 11-12
- Financial Year 2012- 2013 referred to as FY 13 or FY 12-13
- Financial Year 2013- 2014 referred to as FY 14 or FY 13-14
- Financial Year 2014- 2015 referred to as FY 15 or FY 14-15
- As the Hon'ble Commission did not issued any tariff order for FY 2010-11, therefore the petitioner has considered the petitioner's submission in its MYT petition for the first control period for comparison of approved figures of MYT petition vis-à-vis submitted by the petitioner.
- The figures mentioned herein for FY 2011-12 are estimated figures and figures mentioned for FY 13, FY 14 & FY 15 are projections based on the actuals of FY 2010-11 and nine months actuals of FY 2011-12.
- For the purpose of presentation, figures given in the table are shown as rounded off. However for calculation purpose, actual figures have been considered.



## 1. EXECUTIVE SUMMARY

### 1.1 Background

The Hon'ble Commission has issued the MYT Regulations, 2011 dated 02<sup>nd</sup> December 2011, which shall come into force on April 1, 2012 and unless reviewed earlier or extended by the Commission shall remain in force for a period of three years from the date of commencement. The said regulations will be applicable for second control MYT period commencing from FY 2012-13 to FY 2014-15. In accordance with the aforesaid MYT Regulations, 2011 issued by the Hon'ble Commission for next control period and previous MYT Regulations, 2007, **NDMC** is submitting this application for Truing up of Expenses for FY 2010-11 read with Section 4.2 (f), Section 4.11, Section 4.16, Section 5.42 & Section 5.44 of **MYT Regulations,2007**, Annual Performance Review of FY 2011-12 read with Section 8.4, Section 8.5, Section 8.7, Section 8.8, Section 8.9, Section 11.1, Section 11.2, Section 11.3, Section 11.4 and Section 13.4 of **MYT Regulations,2007** and Aggregate Revenue Requirement for the MYT Period i.e. FY 2012-13 to FY 2014-15 (**Second Control Period**) under Section 62 of the Electricity Act 2003, Regulations 7.4 to 7.9, Regulations 10.1 to 10.4, Regulation 11.1 and Regulation 12.4 of **MYT Regulations,2011**.

Complying with the Tariff Regulations, NDMC is submitting the following data for the review and determination of ARR for MYT for second control period:-

- a. True-up of expenses and revenue for the year FY 2010-11 based on the actuals of FY 2010-11.
- b. Comparison of the revenue, expenses and performance of NDMC for FY 2011-12 based on the provisional figures with those approved by the DERC in the ARR order dated 26th August 2011.
- c. Determination of Aggregate Revenue Requirement for the MYT Period i.e. FY 2012-13 to FY 2014-15

### 1.2 True up for FY 2010-11

Based on the actuals of NDMC the Aggregate Revenue Requirement (ARR) for FY 2010-11 is determined as Rs. 831.28 Crores. Power Purchase, R&M Expenses, A&G Expenses and Employee Costs in certain areas where true up amount has varied are compared to the amount approved by the Hon'ble Commission. True up for FY 2010-11 and the variation in actual expenditure vis-à-vis the approval from the Commission in tariff order is summarized



below. Considering the actual revenue billed there is still a huge commutative gap of Rs. 211.05 Crores. The petitioner would like to highlight that the petitioner had envisaged a revenue gap of Rs. 106.73 Crores in its MYT petition whereas actually there is a revenue gap of Rs 211.05 Crores considering the figures of revenue billed for FY 2010-11 which needs to be trued up as per actuals. Based on the above actual expense incurred by NDMC in FY 2010-11, the true up for FY 2010-11 is as given below:

**Table 1.2-1 : Computation of Aggregate Revenue Requirement for FY 2010-11(Rs. Crores)**

S.N.	Particulars	As per MYT petition 2007	Approved in the MYT Order	Actuals
1.	Cost of Power Purchase	485.36	301.47	507.26
2.	Inter-State Transmission Charges		7.85	18.55
3.	Intra-State Transmission (Delhi Transco) Charges	15.87	0.43	0.87
4.	Wheeling Charges payable to other distribution licensee		22.56	22.30
5.	O&M Expenses			
a.	Repair & Maintenance Expenditure	39.05	37.49	36.87
b.	Employee Cost and Provisions	79.81	58.74	68.57
c.	Administration & General Expenses	13.65	12.94	1.09
6.	Depreciation	30.73	30.04	30.43
7.	Allocated of Admin and Civil Engg Department Exp. of NDMC	53.40	45.37	82.75
8.	RoCE	31.50	66.37	81.20
9.	Truing Up Expense	0.00	0.00	-0.59
10.	<b>TOTAL</b>	<b>749.37</b>	<b>583.26</b>	<b>849.32</b>
11.	Less : Non-Tariff Income	3.48	3.48	18.04
12.	<b>Aggregate Revenue Requirement</b>	<b>745.89</b>	<b>579.78</b>	<b>831.28</b>
13.	<b>Revenue at Existing Tariff</b>	<b>639.16</b>	<b>0.00</b>	<b>620.23</b>
14.	<b>Revenue (Gap)/Surplus</b>	<b>(106.73)</b>	<b>0.00</b>	<b>(211.05)</b>

The petitioner respectfully submits that the revenue gap of Rs. 211 Crores in the financial year 2010-11 may please allowed to be recovered along with carrying costs as part of Regulatory Asset Recovery during the Second control period FY 2012-13 to FY 2014-15.



### 1.3 Provisional Truing up for FY 2011-12

Provisional truing up requirement for FY 2011-12 has been estimated after considering the provisional O&M expenses, Power Purchase Expenses, Sales and Capex related expenses which are yet to be finalised and audited. The expenses for FY 2011-12 are estimated on the basis of nine months actuals for FY 2011-12.

Power Purchase, Employee expenses, O&M Expenses, & Return on Capital Employed are major expenditure heads where considerable truing-up is estimated. Provisional Truing up requirement for FY 2011-12 and the variation in provisional expenditure and revenue vis-à-vis the approval of the Commission in its tariff order is summarized below. Based on the provisional expense for FY 2011-12, the estimated revenue gap for FY 2011-12 is as given below:

**Table 1.3-1 : Provisional True up for FY 2011-12 (Rs. Crores)**

S.N.	Particulars	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
1.	Cost of Power Purchase		493.21	558.71
2.	Inter-State Transmission Charges		18.68	25.04
3.	Intra-state Transmission (Delhi Transco) Charges	477.90	118.76	0.39
4.	Wheeling Charges payable to other distribution licensee			118.76
5.	O&M Expenses			
a.	Repair & Maintenance Expenditure	45.21	43.40	43.40
b.	Employee Cost and Provisions	130.89	69.42	69.42
c.	Administration & General Expenses	14.39	13.81	13.81
6.	Depreciation	33.87	34.63	35.59
7.	Allocated Administrative and Civil Engineering Dept Exp of NDMC	82.03	45.37	86.61



S.N.	Particulars	Petitioner's Erstwhile	Approved in Tariff Order	Petitioner's Revised
8.	RoCE	79.24	80.41	94.41
9.	Truing Up Expense	0.00	0.00	80.34
10.	<b>TOTAL</b>	863.53	917.69	1126.49
11.	Less : Non-Tariff Income	10.13	10.13	19.42
12.	<b>Aggregate Revenue Requirement</b>	<b>853.40</b>	<b>907.56</b>	<b>1107.06</b>
13.	<b>Revenue at Existing Tariff</b>	<b>608.68</b>	<b>619.54</b>	<b>645.47</b>
14.	<b>Revenue (Gap)/Surplus</b>	<b>(244.72)</b>	<b>(288.02)</b>	<b>(461.59)</b>

#### 1.4 Projections for Second MYT Control Period from FY 2012-13 to FY 2014-15

Based on the provisional figures of FY 2011-12, actuals of FY 2010-11 and on the basis of CAGR & past trends of last years, the petitioner has projected the Aggregate Revenue Requirement (ARR) for second control period as under:

**Table 1.4-1 : Projections for Second MYT Control Period from FY 2012-13 to FY 2014-15 (Rs. Crores)**

S.N.	Particulars	Projections		
		FY13	FY14	FY15
1.	Cost of Power Purchase	665.71	729.40	791.32
2.	Inter-State Transmission Charges	20.25	21.26	22.32
3.	Intra-State Transmission (Delhi Transco) charges	0.41	0.43	0.45
4.	Wheeling Charges payable to other distribution licensee	124.70	130.93	137.48
5.	O&M Expenses			
a.	Repair & Maintenance Expenditure	52.40	55.82	57.40
b.	Employee Cost and Provisions	81.82	88.73	96.22



S.N.	Particulars	Projections		
		FY13	FY14	FY15
c.	Administration & General Expenses	15.30	16.59	18.00
6.	Depreciation	39.04	40.84	41.68
7.	Allocated Administrative and Civil Engineering Dept Exp of NDMC	93.92	101.85	110.45
8.	RoCE	106.48	108.29	106.42
9.	<b>TOTAL</b>	<b>1200.02</b>	<b>1294.16</b>	<b>1381.74</b>
10.	Less : Non-Tariff Income	20.39	21.41	22.48
11.	<b>Aggregate Revenue Requirement</b>	<b>1179.63</b>	<b>1272.75</b>	<b>1359.26</b>
12.	<b>Revenue at Existing Tariff</b>	<b>731.46</b>	<b>763.79</b>	<b>798.47</b>
13.	<b>Revenue (Gap)/Surplus</b>	<b>(448.17)</b>	<b>(508.96)</b>	<b>(560.78)</b>



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## 2. TRUING UP OF FY 2010-11

### 2.1 Sales

In terms of the Section 4.2(f) and Section 4.11 of the MYT Regulations, 2007, the variation in revenue/ costs on account of uncontrollable factors like Sales and Power Purchase would be trued up annually. The open access transactions shall not form part of sales. The category wise energy sales to the consumers in the licensed area of the petitioner during the year FY 2010-11 is tabulated below:

**Table 2.1-1 : Category Wise Energy Sales**

S.No.	Category	FY 10-11 (Actuals)		
		No. of Connections	Load	Sales
		(as on 31.03.2011)	in MW	in MUs
1	Domestic	42352.00	115.43	239.13
	<i>Single Delivery Point</i>	6225.00	57.99	84.02
	<i>Multiple Delivery Point</i>	33649.00	47.27	136.10
	<i>Power</i>	2478.00	10.18	19.01
2	Non-Domestic	20012.00	129.30	250.84
	Single phase (upto <5 KW)	13673.00	19.22	50.85
	Three phase (upto >5 KW to 100 KW)	6339.00	110.09	199.98
3	Mixed Load	528.00	301.01	693.58
	Supply on 11 KV	191.00	185.18	483.06
	Supply on LT (400V) where supply is given from NDMC sub-station	13.00	1.74	4.24
	Where the applicant provides built up space for sub-station	324.00	114.08	206.28
4	Small Industrial Power-SIP	8.00	0.12	0.32
5	Public Lighting (including lights)	52.00	1.59	8.37
6	DMRC (at 66 KV and 33 KV)	0.00	0.00	0.00
7	Others (including NDMC employees)	2583.00	3.36	7.46
8	JJ Clusters (flat rate consumers)	1675.00	0.00	2.04
	Total	67210.00	550.81	1201.73



As the Hon'ble Commission did not issued any tariff order for FY 2010-11, therefore the petitioner has considered the petitioner's submission in its MYT petition for the first control period for comparison of approved vis-à-vis submitted by the petitioner.

**Table 2.1-2 : Energy Sales - Approved vis-à-vis submitted and Actuals for FY 2010-11**

S.No.	Category	Sales FY 10-11		
		Approved in MYT order	Petitioner's submission	Actuals
		in MUs	in MUs	in MUs
1	Domestic	223.56	237.51	239.13
	Single Delivery Point	65.65	87.48	84.02
	Multiple Delivery Point	134.67	132.21	136.10
	Power	23.24	17.82	19.01
2	Non-Domestic	278.62	297.12	250.84
	Single phase (upto <5 KW)	65.25	56.82	50.85
	Three phase (upto >5 KW to 100 KW)	213.37	240.30	199.98
3	Mixed Load	642.86	671.09	693.58
	Supply on 11 KV	403.21	443.41	483.06
	Supply on LT (400V) where supply is given from NDMC sub-station	7.95	5.71	4.24
	Where the applicant provides built up space for sub-station	231.70	221.97	206.28
4	Small Industrial Power-SIP	0.36	0.39	0.32
5	Public Lighting (including lights)	8.49	8.65	8.37
6	DMRC (at 66 KV and 33 KV)	68.00	0.00	0.00
7	Others (including NDMC employees)			7.46
8	JJ Clusters (flat rate consumers)	4.20	3.94	2.04
	Total	1226.09	1218.70	1201.73

NDMC caters to a small consumer mix constituting of domestic, non- domestic, mixed load and public lighting and small industrial power etc. The Power Factor for each tariff slab where the tariff is specified in kVA/ kVAh terms has been considered at the same level as considered by the Hon'ble Commission in its Tariff Order for FY 11-12.



## 2.2 Revenue Billed

The category wise billed revenue as per the actual information available for FY 2010-11 with NDMC is tabulated below:

**Table 2.2-1 : Actual Revenue Billed category wise**

Category	FY 10-11 (Actuals) (Rs. Crores)			
	Fixed Cost	Variable Cost	E-Tax	Total
Domestic	0.30	72.57	3.63	76.50
Single Delivery Point	0.13	28.72	1.44	30.28
Multiple Delivery Point	0.14	36.66	1.83	38.64
Power	0.02	7.19	0.36	7.58
Non-Domestic	0.33	130.02	6.50	136.85
Single phase (upto <5 KW)	0.06	23.67	1.18	24.92
Three phase (upto >5 KW to 100 KW)	0.27	106.35	5.32	111.93
Mixed Load	51.99	322.47	16.12	390.58
Supply on 11 KV	32.03	222.56	11.13	265.72
Supply on LT (400V) where supply is given from NDMC sub-station	0.50	2.20	0.11	2.81
Where the applicant provides built up space for sub-station	19.46	97.70	4.89	122.05
Small Industrial Power-SIP	0.00	0.13	0.01	0.14
Public Lighting (including lights)	0.00	3.17	0.16	3.33
DMRC (at 66 KV and 33 KV)	0.00	0.00	0.00	0.00
Others (including NDMC employees and JJ clusters)	0.01	1.07	0.00	1.13
JJ Clusters (flat rate consumers)				
LT Surcharge				11.71
<b>Total</b>	<b>52.63</b>	<b>529.43</b>	<b>26.42</b>	<b>620.23</b>

Besides Fixed Cost and Variable Cost, NDMC bills E-Tax and LT surcharge over the sales accounted by the billing department. The LT surcharge and E-tax has been shown separately and it has been included in the total revenue billed for FY 2010-11.

## 2.3 Amount Collected

The total revenue collected is Rs. 608.16 Crores as per the actual information available for FY 2010-11 with NDMC is tabulated below:



**Table 2.3-1 : Amount Collected**

S.No.	Category	FY 10-11 (Actuals) (Rs. Crores)
		Total
1	Tariff Revenue realized	472.46
2	E-Tax realized	22.93
3	Demand Charges realized	50.63
4	LT surcharge collected	11.13
	Total	557.15
5	Arrears collected	31.01
6	Transfer Entry from NDMC for usage of electricity by NDMC buildings	20.00
7	Total Tariff Revenue Collected	608.16
8	Revenue Billed	620.23
9	Collection Efficiency	98.05%

The petitioner submits that the aforesaid total collected amount finds mention in the budget book submitted by NDMC for FY 2012-13. The above mentioned collected amount includes arrears collected during FY 2010-11 apart from E-Tax and LT surcharge shown separately above. The petitioner does not have the category wise break up of revenue collected for FY 2010-11 though the petitioner has been compiling the collection month wise. NDMC is in the process of implementing the billing & collection software and it is currently in testing phase. The petitioner will be able to submit the category wise break up of collection after the testing phase for future submissions.

The petitioner has recorded the collection efficiency of 98.05% for FY 2010-11.

#### **2.4 AT&C Loss**

As per the approved levels of distribution losses of 10.00% in the MYT order and estimates submitted in its MYT petition of 10.50%, the petitioner has achieved the distribution losses of 10.20% for FY 2010-11. Though collection efficiency is almost 1.95% lesser than the approved targets.

The AT&C losses achieved by NDMC during FY 2010-11 is 11.94%, whereas those approved in MYT order is 10% and as per the revised estimates of petition it is 11.15%.



As the Hon'ble Commission did not issued any tariff order for FY 2010-11, therefore the petitioner has considered the petitioner's submission in its MYT petition for the first control period for comparison of approved vis-à-vis submitted by the petitioner.

**Table 2.4-1 : AT&C Loss Achievement vis-à-vis Target**

S.No.	Particulars	AT&C losses (in %age)		
		Approved in MYT order	Petitioner's submission	Actuals
1	Distribution Loss (%)	10.00%	10.50%	10.20%
2	Collection Efficiency (%)	100.00%	100.00%	98.05%
3	AT&C losses (%)	10.00%	10.50%	11.94%

**Table 2.4-2 : Calculation of AT&C Losses for FY 2010-11**

S.No.	Particulars	Calculation of AT&C Losses
		Actuals for FY 2010-11
1	Units Input at DISCOM Periphery (in MUs)	1,338.15
2	Units billed by NDMC (in MUs)	1,201.73
3	Distribution Loss (%) (1-2/1)	10.20%
4	Revenue Billed (in Rs. Crs)	620.23
5	Revenue Realized (in Rs. Crs)	608.16
6	Collection Efficiency (%) (5/4)	98.05%
7	AT&C Losses (%age)	11.94%

## 2.5 Power Purchase Quantum and Cost

The Commission vide its order dated 7 March, 2008 has 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 Government of NCT of Delhi (GoNCTD). Further the Commission also had then clarified 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. The petitioner would like to request



the Hon'ble Commission to review the rider put on the 15% allocation in its MYT order dated 07.03.2008 and power may be revert back to the petitioner.

As the Hon'ble Commission did not issued any tariff order for FY 2010-11, therefore the petitioner has considered the petitioner's submission in its MYT petition for the first control period for comparison of approved vis-à-vis submitted by the petitioner.

The Petitioner had submitted its power purchase requirement for FY 2010-11 after considering the expected sales for the year. The basis of projecting power purchase quantum were as under:

- Availability from Dadri TPS, BTPS and Pragati Station had been considered as approved by the Commission in their respective tariff order.
- Auxiliary consumption at Dadri TPS, BTPS and Pragati Station were assumed at 9%, 11% and 3% respectively
- Further only the firm allocation from Dadri TPS, BTPS and Pragati Station were considered for projecting power purchase requirement for FY 2010-11 assuming that the unallocated power may /may not be available to the Petitioner in the ensuing year.
- The Petitioner had also not envisaged purchase of power from the other discoms in the State.
- The Petitioner had then considered the sale of surplus power to intra-state sales and bilateral sales in the ratio of 50:50.

The actual power purchase quantum for FY 2010-11 is compared with the figures approved by the Commission in its MYT Order in the table below.

**Table 2.5-1 : Comparison of Approved vis-à-vis Actual Power Purchase Quantum in FY 2010-11**

Description	Petitioner's Submission	Approved in the MYT Order	Actuals
	Power Purchase in MU's		



Description	Petitioner's Submission	Approved in the MYT Order	Actuals
	Power Purchase in MU's		
Dadri TPS	813.49	813.49	746.82
Badarpur TPS	696.99	696.99	626.92
Pragati Power I	577.81	577.81	587.17
IPGCL – GTS	0.00	0.00	3.62
IPGCL – Rajghat	0.00	0.00	1.71
Gross Power Purchase Quantum	2088.29	2088.29	1966.24
Intra state - discom sales	331.54	677.66	142.37
Bilateral sales	331.54		328.84
UI net purchase/(sale)	-	-	82.53
PGCIL Transmission losses*	32.95	28.47	49.56
DTL Transmission losses	30.83	19.84	24.80
Energy Available NDMC periphery for retail Sale	1361.43	1362.32	1338.15

\* Actuals includes additional Inter/intra state transmission losses of 21.68 MU's on account of for Interdiscom/Bilateral/IEX purchases.

The basis of projecting power purchase cost were as under

- For the purpose of projecting the cost from various sources, the Petitioner had considered the cost considered by the Commission from such sources in the tariff order for 2009-10 as the base cost.
- An escalation of 6% had been considered to project the power purchase cost in the FY 2010-11.

The actual power purchase costs for FY 2010-11 are compared with the figures approved by the Commission in its MYT Order in the table below.

**Table 2.5-2 : Comparison of Approved vis-à-vis Actual Power Purchase Cost in FY 2010-11**

Description	Petitioner's Submission	Approved in the MYT Order	Actuals
	Power Purchase in Rs. Crores		
Dadri TPS	225.99	198.89	247.38
Badarpur TPS	131.44	211.77	246.53
Pragati Power I	210.21	119.52	160.94
IPGCL – GTS	0.00	0.00	1.39
IPGCL - Rajghat	0.00	0.00	0.59



Description	Petitioner's Submission	Approved in the MYT Order	Actuals
	Power Purchase in Rs. Crores		
Total Power Purchase Cost	567.64	530.18	656.84

Petitioner's power purchase quantum is fairly consistent with the earlier projection/approval, however power purchase cost have been higher than the estimate on account of higher procurement cost vis-a vis rise in fuel cost at Generation company end. The Petitioner humbly requests the Hon'ble Commission to approve the actual power purchase cost as submitted in the true-up petition.

## 2.6 Transmission Losses and Charges

The Petitioner had considered PGCIL losses in the Northern Region at around 4.04% based on the average losses in the NR as per publication by Northern Regional Load Despatch Center (NRLDC) and losses in DTL network at 1.50% as considered by the Commission in the tariff order for 2009-10 for the Petitioner. Actual losses for 2010-11 in PGCIL network and DTL network averaged at 3.37% and 1.29% respectively. Petitioner would like to bring at Commission's kind notice that it has suffered additional inter/intra state transmission losses of 21.68 MU's on account of Interdiscom/Bilateral/IEX purchases.

For the purpose of projecting the PGCIL transmission charges the base charges (as approved by the Commission in the tariff order for 2009-10 for the Petitioner) had been then escalated at around 4% for estimating such charges for 2010-11. DTL charges as were approved by the Commission in the MYT order 2007 for DTL were considered by the Petitioner on prorata basis at 7.98%.

The actual inter/intra state transmission losses and the costs for FY 2010-11 are compared with the figures approved by the Commission in its MYT Order in the table below.

**Table 2.5-3 : Comparison of Approved vis-à-vis Actual Transmission Losses and Cost in FY 2010-11**

Description	Petitioner's Submission	Approved in the MYT Order	Actuals
Transmission Losses ( MU's)			
Inter-state transmission*	32.95	28.47	49.56
Intra-state transmission	30.83	19.84	24.80
Total Transmission Losses ( MU's)	63.78	48.31	74.35
Transmission Charges (Rs Cr)			
Inter-state transmission	14.35	7.85	18.55



Description	Petitioner's Submission	Approved in the MYT Order	Actuals
Intra-state transmission	31.79	22.56	21.27
Total Transmission Charges (Rs Cr)	46.14	30.41	39.82

\* Actuals includes additional Inter/intra state transmission losses of 21.68 MU's on account of Interdiscom/Bilateral/IEX purchases.

## 2.7 Sale of Surplus Power

The Petitioner had projected sale of surplus power of 675 MU's to intra-state sales and bilateral sales in the ratio of 50:50 at a rate of Rs. 3.75 per unit for intra state sales and Rs 5 per unit for bilateral sales. The actual revenue from sale of surplus power for FY 2010-11 is compared with the figures approved by the Commission in its MYT Order in the table below.

**Table 2.5-4 : Comparison of Approved vis-à-vis Actual Sale of Surplus Power in FY 2010-11**

Description	Petitioner's Submission	Approved in the MYT Order	Actuals
Sale of Surplus Power ( MU)			
Intra state - discom sales	331.54	677.66	142.37
Bilateral sales	331.54		328.84
UI net purchase/(sale)	-	-	82.53
Total	663.08	677.66	553.74
Sale of Surplus Power (Rs Cr)			
Intra state - discom sales	124.33	228.71	55.13
Bilateral sales	165.77		64.96
UI net purchase/(sale)	-	-	29.49
Total	290.10	228.71	149.58

## 2.8 Energy Balance

The following table shows the energy balance arrived at for FY 2010-11 after considering the sales projections, AT&C loss levels, transmission losses, power purchase and sale of surplus power and the actual energy balance for the corresponding period.

**Table 2.5-5 : Comparison of Approved vis-à-vis Actual Energy Balance in FY 2010-11**

Description	Petitioner's Submission			Approved in the MYT Order			Actuals		
	MU	Amt. Rs. Crs	Avg. Cost (Rs)	MU	Amt. Rs. Crs	Avg. Cost (Rs)	MU	Amt. Rs. Crs	Avg Cost (Rs)
Dadri TPS	813.49	225.99	2.78	813.49	198.89	2.44	746.82	247.38	3.31
Badarpur TPS	696.99	131.44	1.89	696.99	211.77	3.04	626.92	246.53	3.93



Description	Petitioner's Submission			Approved in the MYT Order			Actuals		
	MU	Amt. Rs. Crs	Avg. Cost (Rs)	MU	Amt. Rs. Crs	Avg. Cost (Rs)	MU	Amt. Rs. Crs	Avg Cost (Rs)
Pragati Power I	577.81	210.21	3.64	577.81	119.52	2.07	587.17	160.94	2.74
IPGCL – GTS	-	-	-	-	-	-	3.62	1.39	3.84
IPGCL – Rajghat	-	-	-	-	-	-	1.71	0.59	3.43
Gross Power Purchase	2088.29	567.64	2.72	2088.29	530.18	2.54	1966.24	656.84	3.34
Inter-state transmission*	32.95	-	-	28.47	-	-	49.56	-	-
Intra-state transmission	30.83	-	-	19.84	-	-	24.80	-	-
Power Available to NDMC	2024.51	567.64	2.80	2039.98	530.18	2.60	1891.89	656.84	3.47
Sale of Surplus Power	663.08	290.10	4.38	677.66	228.71	3.38	553.74	149.58	2.70
Energy Required for Retail Sale	1361.43	277.54	2.04	1362.32	301.47	2.21	1338.15	507.26	3.79
Distribution loss (%)	10.50%	-	-	10.00%	-	-	10.20%	-	-
Distribution loss (MU)	142.95	-	-	136.23	-	-	136.43	-	-
Sale of Retail Power	1218.48	-	-	1226.09	-	-	1201.73	-	-

\* Actuals includes additional Inter/intra state transmission losses of 21.68 MU's on account of for Interdiscom/Bilateral/IEX purchases.

## 2.9 Other Controllable Expenses

The Administrative and General Expenses, Repair & Maintenance Costs have been submitted for true-up on actual basis for FY 2010-11 after factoring 4% efficiency improvement as approved by the commission in the last MYT order. Same methodology as previously approved by the commission has been followed to arrive at the Depreciation and allocation of Total Administration and Civil Engineering Department expenses (which have been calculated on actual basis) to Electricity Distribution Business. Even though the methodology of computation of RoCE is same as approved by the Commission, there is variance in the RoCE approved and that submitted for true-up due to adoption of normative debt – equity ratio of 70:30, change in working capital requirement and capitalized expenses (which are computed on actual basis). The Non-Tariff Income has been computed as per actual for FY 2010-11.

## 2.10 ARR and Revenue (Gap)/Surplus during FY 2010-11

The Hon'ble Commission had approved the ARR of Rs 579.78 Crores while there is an actual requirement of revenue to the tune of Rs 831.28 Crores. The increase in ARR is mainly due



to increase in net power purchase cost followed by Administration and Civil Engineering Department expenses.

Considering the actual revenue billed there is still a huge commutative gap of Rs. 211.05.39 Crores. The petitioner would like to highlight that the petitioner had envisaged a revenue gap of Rs. 106.73 Crores in its MYT petition whereas actually there is a revenue gap of Rs 211.05 Crores considering the figures of revenue billed for FY 2010-11 which needs to be trued up as per actuals. Based on the above actual expense incurred by NDMC in FY 2010-11, the true up for FY 2010-11 is as given below:

**Table 2.10-1 : Computation of Aggregate Revenue Requirement for FY 2010-11(Rs. Crores)**

S.N.	Particulars	As per MYT petition 2007	Approved in the MYT Order	Actuals
1.	Cost of Power Purchase	485.36	301.47	507.26
2.	Inter-State Transmission Charges		7.85	18.55
3.	Intra-State Transmission (Delhi Transco) Charges	15.87	0.43	0.87
4.	Wheeling charges payable to other distribution licensee		22.56	22.30
5.	O&M Expenses			
a.	Repair & Maintenance Expenditure	39.05	37.49	36.87
b.	Employee Cost and Provisions	79.81	58.74	68.57
c.	Administration & General Expenses	13.65	12.94	1.09
6.	Depreciation	30.73	30.04	30.43
7.	Allocated of Admin and Civil Engg. Department Exp. of NDMC	53.40	45.37	82.75
8.	RoCE	31.50	66.37	81.20
9.	Truing Up Expense	0.00	0.00	-0.59
10.	Total	749.37	583.26	849.32
11.	Less : Non-Tariff Income	3.48	3.48	18.04
12.	<b>Aggregate Revenue Requirement</b>	<b>745.89</b>	<b>579.78</b>	<b>831.28</b>
13.	<b>Revenue at Existing Tariff</b>	<b>639.16</b>	<b>0.00</b>	<b>620.23</b>
14.	<b>Revenue (Gap)/Surplus</b>	<b>(106.73)</b>	<b>0.00</b>	<b>(211.05)</b>



The petitioner respectfully submits that the revenue gap of Rs. 211.05 Crores in the financial year 2010-11 may please be allowed to be recovered along with carrying costs as part of Regulatory Asset Recovery during the Second control period from FY 2012-13 to FY 2014-15.



### 3. ANNUAL PERFORMANCE REVIEW OF FY 2011-12

#### 3.1 Background

In terms of Section 11.1 of the MYT Regulations, 2007, the Hon'ble Commission in order to address any unexpected outcomes may undertake a periodic review. The relevant portion of the MYT Regulation is reproduced below:

*"11.1 To ensure smooth implementation of the Multi Year Tariff (MYT) Framework, the Commission may undertake periodic reviews of Licensees' performance during the Control Period, to address any practical issues, concerns or unexpected outcomes that may arise.*

*11.2 The Distribution Licensee shall submit information as part of annual review on actual performance to assess the performance vis-à-vis the targets approved by the Commission at the beginning of the Control Period. This shall include annual statements of its performance and accounts including latest available audited/actual accounts and the tariff worked out in accordance with these Regulations."*

It is submitted that the Hon'ble Commission has estimated the expenditure for FY 2011-12 based on the actual information available for FY 2009-10 and available figures for FY 2010-11. Based on the actual figures upto December 2011, it is explicitly clear that there is a wide variation in the uncontrollable expenses, more particularly related to power purchase expenses.

#### 3.2 Sales

The petitioner has estimated the category wise Sales for FY 2011-12 based on the following assumptions:

- Average of actual figures for the first 9 months of FY 2011-12 and FY 2010-11, has been considered for projecting sales for remaining three months to complete the estimations for full year of FY 2011-12.
- Past trends of slab wise consumption for domestic category during january, february and march of FY 2009-10 have been considered to estimate the slab wise sales for january, february and march of FY 2011-12 on domestic category including single delivery point and multiple delivery points.
- Higher growth has been estimated in public street lighting category. Its estimate is based on the actuals of nine months of FY 2011-12.



Based on the above assumptions the category wise energy sales for FY 2011-12 are tabulated below:

**Table 3.2-1 : category wise energy sales**

S.No.	Category	FY 11-12 (Estimated)		
		No. of Connections	Load	Sales
		(as on 30.09.2011)	in MW	in MUs
1	Domestic	42723.00	118.72	223.01
	<i>Single Delivery Point</i>	6600.00	59.51	80.35
	<i>Multiple Delivery Point</i>	33751.00	49.45	127.08
	<i>Power</i>	2372.00	9.76	15.58
2	Non-Domestic	19846.00	131.13	216.54
	Single phase (upto <5 KW)	13583.00	19.18	42.81
	Three phase (upto >5 KW to 100 KW)	6263.00	111.95	173.73
3	Mixed Load	542.00	317.21	710.65
	Supply on 11 KV	202.00	200.09	507.10
	Supply on LT (400V) where supply is given from NDMC sub-station	14.00	2.02	3.97
	Where the applicant provides built up space for sub-station	326.00	115.10	199.58
4	Small Industrial Power-SIP	8.00	0.12	0.31
5	Public Lighting (including lights)	67.00	1.59	14.36
6	DMRC (at 66 KV and 33 KV)	1.00	8.50	22.38
7	Others (including NDMC employees)	2445.00	3.30	6.10
8	JJ Clusters (flat rate consumers)	1696.00	0.00	2.04
	Total	67328.00	580.57	1195.38

### 3.3 Revenue Billed

The petitioner has estimated the revenue billed (fixed and energy charges) as per the tariff for each tariff slab approved by the Hon'ble Commission in its tariff order dated 26.08.2011.

The power factor for each tariff slab where the tariff is specified in kVA/ kVAh terms has been considered at the same level as considered by the Hon'ble Commission in its tariff order for FY 11-12.

Based on the units calculated from the methodology described above, the petitioner has projected the total revenue billed for FY 2011-12 to be Rs. 645.47 Crores inclusive of E-Tax, LT surcharge. The LT surcharge has not been considered from the billing month of September 2011 as the same has been abolished by DERC in its tariff order dated



26.08.2011. For estimation purpose for the month of January, February and March 2012, the petitioner has considered E-tax at the rate of 5% on the variable charges billed during the same period as Revenue billed under the E-Tax. The impact of tariff increase was accorded from the billing month of September 2011 on all categories of consumers of NDMC. The category wise revenue billed for FY 2011-12 is tabulated below:

**Table 3.3-1 : Category wise Revenue Billed**

S.No.	Category	FY 11-12 (Estimated) (Rs. Crores)			
		Fixed Cost	Variable Cost	E-Tax	Total
1	Domestic	0.75	68.89	3.44	73.08
	Single Delivery Point	0.37	28.01	1.42	29.80
	Multiple Delivery Point	0.33	35.00	1.73	37.06
	Power	0.06	5.88	0.29	6.22
2	Non-Domestic	0.77	113.29	5.61	119.67
	Single phase (upto <5 KW)	0.12	20.08	0.99	21.19
	Three phase (upto >5 KW to 100 KW)	0.64	93.21	4.62	98.48
3	Mixed Load	55.50	350.99	17.77	424.26
	Supply on 11 KV	34.04	247.68	12.56	294.29
	Supply on LT (400V) where supply is given from NDMC sub-station	0.44	2.24	0.11	2.79
	Where the applicant provides built up space for sub-station	21.02	101.07	5.09	127.18
4	Small Industrial Power-SIP	0.00	0.13	0.01	0.14
5	Public Lighting (including lights)	0.00	7.15	0.35	7.51
6	DMRC (at 66 KV and 33 KV)	0.72	9.13	0.46	10.31
7	Others (including NDMC employees and JJ clusters)	0.02	3.90	0.00	4.11
8	JJ Clusters (flat rate consumers)				
	LT Surcharge				6.40
	<b>Total</b>	<b>57.76</b>	<b>553.48</b>	<b>27.63</b>	<b>645.47</b>



### 3.4 Amount Collected

The total revenue estimated to be collected is Rs. 645.47 Crores for FY 2011-12. The estimates of total collected revenue includes LT surcharge collected upto the month of october 2011, arrears collected upto the month of december 2011. The collection of tariff revenue, demand charges and E-Tax for the month of january, february and march 2012 has been estimated based on the past trends of similar quarters of previous years. However arrears have not been considered during the said quarter in the collection estimated for FY 2011-12. The details of collection are tabulated below:

**Table 3.4-1 : Amount Collected**

S.No.	Category	FY 11-12 (Estimated) (Rs. Crores)
		Total
1	Tariff Revenue realized	524.56
2	E-Tax realized	27.83
3	Demand Charges realized	51.66
4	LT surcharge collected	6.10
	Total	610.15
5	Arrears	35.32
6	Transfer Entry from NDMC for usage of electricity by NDMC buildings	0.00*
7	Total Tariff Revenue Collected	645.47
8	Revenue Billed	645.47
9	Collection Efficiency	100%

\*Transfer entry will be reflected in the books of NDMC after the closure of financial year of FY 2011-12 and will be considered later on as per the actuals.

### 3.5 AT&C Loss

The petitioner has derived AT&C losses on the basis of estimated distribution losses and collection efficiency for the fourth quarter of FY 2011-12 and actuals of nine months of FY 2011-12.

**Table 3.5-1 : AT&C Loss Achievement vis-à-vis Target**

S.No.	Particulars	AT&C losses (in %age)		
		Approved	Petitioner's submission	Estimated
1	Distribution Loss (%)	9.60%	10.00%	9.60%
2	Collection Efficiency (%)	100.00%	99.50%	100.00%



S.No.	Particulars	AT&C losses (in %age)		
		Approved	Petitioner's submission	Estimated
3	AT&C losses (%)	9.60%	10.90%	9.60%

### 3.6 Energy Availability

The energy requirement for the Petitioner is met from various sources namely:

- Power Purchase from Dadri Power Station
- Power Purchase from plants located in Delhi.
- Bilateral Power Purchase.
- Inter Discom Purchase.

The Petitioner allocation from various power stations from which it sources of power is given in the table below.

**Table 3.5-2 : Capacity Allocation**

Description	NDMC Share (MW)	Firm Allocation (85%) (MW)	Share from Unallocated Power (MW)	Total Share (MW)	%age Share
NTPC - Dadri TPS	125	106.25	2.06	108.31	12.894%
NTPC - Badarpur TPS	125	106.25	1.78	108.03	15.323%
IPGCL - Gas Turbine*	0	0.00	0.73	0.73	0.270%
IPGCL – Rajghat*	0	0.00	0.36	0.36	0.267%
Pragati Power Corp	100	85.00	0.9	85.9	26.030%

\*The allocation from IPGCL-Gas Turbine and Rajghat is not under firm allocation to NDMC.

For meeting the supply-demand gap during the peak hours, the Petitioner relies upon Bilateral and Inter Discom power purchase. However, if inevitable, Petitioner also resorts to Unscheduled Interchange to meet further gap.

Detailed methodology for projecting the power availability from various sources is detailed below.

### 3.7 Power Purchase Projection for FY 2011-12

For projections of the energy available for FY 11-12, 9 months actual power purchase from Gencom's and 6 months actuals from other sources have been considered.



The Petitioner has considered average PLF of past 21 months of the allocated generating units and auxiliary consumption as per CERC Terms and Conditions of Tariff Regulations 2009-2014 for Dadri TPS and Badarpur TPS and as per DERC Terms and Conditions for Determination of Generation Tariff Regulations, 2011 for Pragati Power Station, IPGCL - Gas Turbine Station and IPGCL – Rajghat Station for projection power purchase for the remainder 3 months of FY 2011-12. A gist of average PLF and auxiliary consumption is given in table below.

**Table 0-1: PLF and Auxiliary Consumption**

	Average PLF %	Auxiliary Consumption %
NTPC - Dadri TPS	87.06%	9.00%
NTPC - Badarpur TPS	74.90%	9.50%
IPGCL - Gas Turbine	57.14%	3.00%
IPGCL - Rajghat	68.16%	11.28%
Pragati Power Corp	79.16%	3.00%

The power availability of 250 MW of PPCL-III is also envisaged to commence supply power from 01 January 2012 onwards. The Commission erstwhile has fixed Petitioner's share at 100 MW from PPCL-III of the 1500 MW total capacity. Accordingly the Petitioner has considered its share of 6.67% in the 250 MW capacity addition and projected power allocation from January to March from the generating unit with 85% PLF and 3% auxiliary consumption.

In FY 11-12, the bilateral and inter discom purchase has been kept at the actual level as per information available for 6 months. Same has been assumed as zero for remainder of FY 11-12 as sufficient energy allocation has been envisaged for the remainder of FY 11-12..

The increase in energy availability in last few years has helped the Petitioner in meeting the growing peak demand from the consumers within its distribution area during the year. Further, these additional capacities have resulted in substantial energy surplus to the Petitioner. Such surplus energy is sold by the Petitioner under bilateral arrangement, IEX, UI and to other discoms in Delhi.

Based on actual available 6 months sales data, the Petitioner estimates 480 MU of energy is available for sale under bilateral arrangement, IEX, and UI to other discoms for the remainder of FY 11-12.



Petitioner submits to the Hon'ble Commission to approve the revised Power Purchase quantum projected for the FY 11-12 in table below.

**Table 0-2 : Revised Power Purchase Quantum for FY 2011-12 vis-à-vis Approved and erstwhile Submission**

Description	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
	Power Purchase in MUs		
Dadri TPS	803.33	830.50	737.75
PGCIL Transmission losses	20.00	33.39	31.06
Power at Delhi periphery from Dadri TPS	783.33	797.11	706.69
Badarpur TPS	664.8	720.03	638.77
Pragati Power I	615.6	585.51	618.66
IPGCL – GTS	0.00	4.38	3.51
IPGCL – Rajghat	0.00	1.98	1.80
PPCL – III	396.69	74.28	30.01
Gross Power Purchase Quantum	2460.42	2183.29	1999.43
DTL Transmission losses	48.35	27.95	24.99
Power at NDMC periphery	2412.07	2155.34	1974.44
Intra state - discom sales	316.74	724.24	237.40
Bilateral sales	739.05		287.07
UI net purchase/(sale)	-		127.68
Energy Available NDMC periphery for retail Sale	1356.28	1431.10	1322.30

### 3.8 Power Purchase Cost Projection for FY 2011-12

The power purchase cost from generating units for the first 9 months is considered on actual basis.

For the remainder of three months the power purchase cost from generating units is projected in two parts providing for fixed capacity charge and variable energy charge.

Fixed capacity charge is derived after considering factors PAFM (last 21 month average), approved annual fixed charges as per the latest tariff orders, approved NAPAF as per tariff regulation for respective generating units for FY 2011-12 and petitioners %age share in the generating units installed capacity.



Variable energy charge is derived based on average per unit energy rate for the first 9 months of the respective generating units for FY 2011-12.

Power purchase cost of PPCL – III has been assumed at Rs 4.07 per unit as per the latest tariff order.

Petitioner requests the Hon'ble Commission to approve the revised power purchase cost as submitted for FY 2011-12 in table below

**Table 0-3 : Revised Power Purchase cost for FY 2011-12 vis-à-vis Approved and erstwhile Submission**

Source	Quantum (MUs)	Fixed Cost (Rs Cr)	Variable Cost (Rs Cr)	Other Cost (Rs Cr)	Total Cost (Rs Cr)	Fixed Cost per unit	Variable Cost per unit	Total Cost per unit
<b>Petitioner's Erstwhile Submission</b>								
Dadri TPS	803.33				256.43			3.19
Badarpur TPS	664.80				264.49			3.98
Pragati Power I	615.60				155.46			2.53
IPGCL - GTS	0.00				0.00			-
IPGCL - Rajghat	0.00				0.00			-
PPCL - III	396.69				119.01			3.00
	2480.42	0.00	0.00	0.00	795.39			3.21
<b>Approved in Tariff Order for FY 2011-12</b>								
Dadri TPS	830.50	60.91	198.70	0.07	259.68	0.73	2.39	3.13
Badarpur TPS	720.03	59.83	227.90	0.00	287.73	0.83	3.17	4.00
Pragati Power I	585.51	64.69	108.79	0.00	173.48	1.10	1.86	2.96
IPGCL - GTS	4.38	0.52	1.33	0.00	1.85	1.19	3.04	4.22
IPGCL - Rajghat	1.98	0.47	0.48	0.00	0.95	2.37	2.42	4.80
PPCL - III	74.28	0.00	30.23	0.00	30.23	0.00	4.07	4.07
	2216.68	186.42	567.43	0.07	753.92	0.84	2.56	3.40
<b>Petitioner's Revised Estimates</b>								
Dadri TPS	737.75	67.08	216.08	0.04	283.21	0.91	2.93	3.84
Badarpur TPS	638.77	61.59	201.53	0.00	263.12	0.96	3.16	4.12
Pragati Power I	618.66	57.60	135.43	14.38	207.40	0.93	2.19	3.35
IPGCL - GTS	3.51	0.43	1.06	0.09	1.58	1.22	3.03	4.50
IPGCL - Rajghat	1.80	0.33	0.48	0.13	0.93	1.82	2.66	5.18
PPCL - III	30.01	0.00	12.21	0.00	12.21	0.00	4.07	4.07
	2030.50	187.02	566.80	14.64	768.46	0.92	2.79	3.78



### 3.9 Transmission Losses and Charges

The Petitioner has considered PGCIL losses in the Northern Region at around 4.21% based average of 6 months actuals through Sept 2011 and losses in DTL network at 1.25% as considered by the Commission in the latest MYT tariff order 2011.

PGCIL transmission charges the for first 9 months are actuals while the next 3 months are projected as per CERC order dated 29/6/2011, for POC (point of contact) rates.

**Table 0-4 Revised Transmission Losses and Cost for FY 2011-12 vis-à-vis Approved and erstwhile Submission**

	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
Transmission Losses ( MU)			
Inter-state transmission	20.00	33.39	31.06
Intra-state transmission	48.35	27.95	24.99
Total Transmission Losses ( MU)	68.35	61.34	56.06
Transmission Charges (Rs. Cr)			
Inter-state transmission	6.41	18.68	25.044
Intra-state transmission	45.62	118.76	119.15
Total Transmission Charges (Rs. Cr)	52.03	137.44	144.19

### 3.10 Sale of Surplus Power

Based on actuals sales data available for 6 (six) months, the Petitioner estimated 480 MU of energy is available for sale under bilateral arrangement, IEX, and UI to other discoms for the remainder of FY 11-12 at a rate of Rs. 3.50 per unit. The revised revenue estimates from sale of surplus power for FY 2011-12 is compared with the figures approved by the Commission in its Tariff Order for FY 2011-12 in the table below.

**Table 0-5 Revised Estimates of Sale of Surplus Power in FY 2011-12 vis-à-vis Approved and erstwhile Submission**

	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
Sale of Surplus Power ( MU)			
Intra state - discom sales	316.74	724.24	237.40
Bilateral sales	739.05		287.07



	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
UI net purchase/(sale)	-		127.68
Total	1055.79	724.24	652.15
Sale of Surplus Power (Rs Cr)			
Intra state - discom sales	110.86	260.73	84.59
Bilateral sales	258.67		83.47
UI net purchase/(sale)	-	-	41.69
Total	369.53	260.73	209.74

### 3.11 Energy Balance

The following table shows the revised energy balance arrived at for FY 2011-12 after considering the actual and projected sales, AT&C loss levels, transmission losses, power purchase and sale of surplus power and a comparison with that approved Tariff Order for FY 2011-12 and Petitioner's erstwhile submission.

**Table 0-6 Revised Energy Balance for FY 2011-12 vis-à-vis Approved and erstwhile Submission**

Description	Petitioner's Erstwhile Submission			Approved in Tariff Order for FY 2011-12			Petitioner's Revised Estimates		
	MU	Amt Rs.Crs	Avg Cost (Rs)	MU	Amt Rs. Crs	Avg Cost (Rs)	MU	Amt Rs.Crs	Avg Cost (Rs)
Dadri TPS	803.33	256.43	3.19	830.50	259.68	3.13	737.75	283.21	3.84
PGCIL Transmission losses	20.00	-		33.39			31.06		
Power at Delhi periphery from Dadri TPS	783.33	256.43	3.27	797.11	259.68	3.26	706.69	283.21	4.01
Badarpur TPS	664.8	264.49	3.98	720.03	287.73	4.00	638.77	263.12	4.12
Pragati Power I	615.6	155.46	2.53	585.51	173.48	2.96	618.66	207.40	3.35
IPGCL – GTS	0	0.00	-	4.38	1.85	4.22	3.51	1.58	4.50
IPGCL – Rajghat	0	0.00	-	1.98	0.95	4.80	1.80	0.93	5.18
PPCL – III	396.69	119.01	3.00	74.28	30.23	4.07	30.01	12.21	4.07
Gross Power Purchase	2460.42	795.39	3.23	2183.29	753.92	3.45	1999.43	768.46	3.84
DTL Transmission losses	48.35	-	-	27.95		-	24.99		-
Power at NDMC periphery	2412.07	795.39	3.30	2155.34	753.92	3.50	1974.44	768.41	3.89
Sale of Surplus Power	1055.79	369.53	3.50	724.24	260.73	3.60	652.15	209.74	3.22
Energy Required for Retail Sale	1356.28	425.86	3.14	1431.10	493.19	3.45	1322.30	558.71	4.23
Distribution loss (%)	10.00%		-	9.60%		-	9.60%		-
Distribution loss (MU)	135.63		-	137.39		-	126.91		-



Description	Petitioner's Erstwhile Submission			Approved in Tariff Order for FY 2011-12			Petitioner's Revised Estimates		
	MU	Amt Rs.Crs	Avg Cost (Rs)	MU	Amt Rs. Crs	Avg Cost (Rs)	MU	Amt Rs.Crs	Avg Cost (Rs)
Sale of Retail Power	1220.65		-	1293.71		-	1195.38		-

### 3.12 Other Controllable Expenses

The Operation and Maintenance Costs comprising of the Employee cost, Administration & General expenses, Repair & maintenance costs have been retained as the same as approved by the Commission in the tariff order for FY 2011-12. The petitioner would like bring to the kind notice of the Commission that in the tariff order for FY 2011-12, the Commission has capitalized employee expenses twice to the tune of Rs. 10.01 crores (please refer tables 81, 86 and 102 of the tariff order for FY 2011-12), the petitioner request the commission to rectify the error.

In principle same methodology for calculating depreciation and allocated share of total Administration and Civil Engineering Department expenses has been adopted as has been followed in previous tariff orders, however there is variance in the allocated share of Administration and Civil Engineering Department expenses as the petitioner as taken 2010-11 actuals as base and estimated for the remainder year on the basis of 9 months actuals.

Even though the methodology of computation of RoCE is same as approved by the Commission, there is variance in the RoCE approved and that submitted for true-up due to adoption of normative debt – equity ratio of 70:30, change in working capital requirement and capitalized expenses (which are computed on actual basis). During the FY 2011-12 the petitioner has received revised power purchase bills of Rs. 80.34 crores which pertains to energy purchased during FY 2009-10, and has been paid same. The Petitioner has submitted the said power purchase cost for truing up during FY 2011 – 12 on accrual based accounting.

### 3.13 ARR and Revenue (Gap)/Surplus during FY 2011-12

Provisional truing up requirement for FY 2011-12 has been estimated after considering the provisional O&M expenses, Power Purchase Expenses, Sales and Capex related expenses which are yet to be finalised and audited. The expenses for FY 2011-12 are estimated on the basis of nine months actuals for FY 2011-12.



Power Purchase, Employee expenses, O&M Expenses & Return on Capital Employed are major expenditure heads where considerable truing-up is estimated. Provisional Truing up requirement for FY 2011-12 and the variation in provisional expenditure and revenue vis-à-vis the approval of the Commission in its tariff order is summarized below. Based on the provisional expense for FY 2011-12, the estimated revenue gap for FY 2011-12 is as given below:

**Table 3.13-1 : Computation of Aggregate Revenue Requirement (Rs. Crores)**

S.N.	Particulars	Petitioner's Erstwhile Submission	Approved in Tariff Order for FY 2011-12	Petitioner's Revised Estimates
1.	Cost of power purchase	477.90	493.21	558.71
2.	Inter-State Transmission charges		18.68	25.04
3.	Intra-state Transmission (Delhi Transco) charges		118.76	0.39
4.	Wheeling charges payable to other distribution licensee			118.76
5.	O&M Expenses			
a.	Repair & Maintenance Expenditure	45.21	43.40	43.40
b.	Employee Cost and Provisions	130.89	69.42	69.42
c.	Administration & General Expenses	14.39	13.81	13.81
6.	Depreciation	33.87	34.63	35.59
7.	Allocated Administrative and Civil Engineering Dept Exp. of NDMC	82.03	45.37	86.61
8.	RoCE	79.24	80.41	94.41
9.	Truing Up Expense	0.00	0.00	80.34
10.		863.53	917.69	1126.49
11.	Less : Non-Tariff Income	10.13	10.13	19.42
12.	Aggregate Revenue Requirement	<b>853.40</b>	<b>907.56</b>	<b>1107.06</b>
13.	Revenue at Existing Tariff	<b>608.68</b>	<b>619.54</b>	<b>645.47</b>
14.	Revenue (Gap)/Surplus	<b>(244.72)</b>	<b>(288.02)</b>	<b>(461.59)</b>

It is evident from the table mentioned above that the Revenue Gap during FY 2011-12 is primarily on account of absence of a mechanism for uncontrollable element of Power



Purchase Cost Adjustment on a monthly basis. Further the petitioner would like to highlight that the Aggregate Revenue Requirement calculated by the Hon'ble Commission has included the component of employee expenses capitalised during the year twice in their calculations. The same expenses had already been considered and netted of from employee expenses in table no. 81 but it was again included in the table 102 which is showing in the ARR calculation.

### Revenue Gap/Surplus during the control period

Pursuant to the "variations highlighted for the Opening Figure for FY 07-08 in the tariff order" as mentioned in the Review Report submitted to NDMC. The opening figure of surplus for FY 07-08 has been taken as Rs. 113 crores which is not correct as per the true up order of FY 2006-07. The closing figure of surplus is hereby calculated as Rs. 21.8 crore. So thereby considering the later figure as the opening figure for surplus of FY 2007-08, the net impact on the closing surplus for FY 2007-08 after this correction will be Rs. 91.62 crore.

**Table 3.13-2 : Revised Calculation of Revenue (Gap)/Surplus for FY 2007-08 (Rs. Crores)**

S.N.	Particulars	FY 2007-08
1.	Opening (Gap)/surplus( In Rs Cr)	21.8
2.	Revenue (Gap)/ surplus for FY 2007-08 approved in Tariff Order dated June 18, 2009( In Rs Cr)	183.93
3.	Increase in A&G Expenses on account of revision of inflation index( In Rs Cr)	-0.06
4.	Increase in Employee Expenses on account of revision of inflation index( In Rs Cr)	-0.28
5.	Decrease in Employee Expenses due to Increase in Employee Expense Capitalization( In Rs Cr)	0.82
6.	Total Revenue (Gap) surplus( In Rs Cr)	206.21
7.	Carrying Cost (in %)	9.50%
8.	Carrying Cost ( In Rs Cr)	19.59
9.	Closing Revenue (Gap)/ surplus for FY 2007-08( In Rs Cr)	225.80
10.	Net Impact on Closing surplus for FY 2007-08( In Rs Cr)	91.62



**Table 3.13-3 : Computation of Revenue (Gap)/Surplus during the first control period (Rs. Crores)**

S.No.	Particulars	Revenue Gap/Surplus				
		FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
1	Opening (Gap)/surplus( In Rs Cr)	21.80	225.80	552.94	471.95	285.69
2	Revenue (Gap)/ surplus for FY 2007-08 approved in Tariff Order dated June 18, 2009( In Rs Cr)	183.93	0.00	0.00	0.00	0.00
3	Revenue Requirement for the current year	0.46	240.50	641.70	831.28	1107.06
4	Revenue at existing tariff including impact of revised tariff during FY 2011-12 from september month		519.67	519.76	620.23	645.47
5	Surplus/Gap for the year		279.17	(121.94)	(211.05)	(461.59)
6	Additional Surplus/ (Gap) for the year on account of Hon`ble ATE orders	0.46	0.00			
7	Closing Revenue (Gap)/ surplus	206.21	504.97	431.00	260.90	(175.91)
8	Carrying Cost (%age)	9.50%	9.50%	9.50%	9.50%	9.50%
9	Carrying Cost for the year	19.59	47.97	40.95	24.79	0.00
10	Closing Revenue (Gap)/ surplus	225.80	552.94	471.95	285.69	0.00
11	Ammortisation of Regulatory Asset	0.00	0.00	0.00	0.00	0.00
12	Net Revenue (Gap)/Surplus	225.80	552.94	471.95	285.69	0.00

For calculation of revenue (gap)/surplus for FY 2011-12, the petitioner has considered the revenue billed at the revised tariff from the billing month of September 2011. As can be observed, the petitioner has a revenue gap till 31<sup>st</sup> March 2012 of Rs. 175.91 Crores based on the estimated figures of fourth quarter of FY 2011-12.



#### 4. PROJECTIONS FOR SECOND MYT CONTROL PERIOD FROM FY 2012-13 to FY 2014-15

##### 4.1 Sales

The petitioner has forecasted sales to each consumer category and sub-categories for each year of the Control Period based on the following assumptions:

- The petitioner is of the view that factors affecting the actual consumption of electricity are numerous and often beyond the control of the distribution utility including factors such as government policy, economic climate, weather conditions and force majeure events like natural disasters, etc., Therefore for projecting energy sales for various category and sub categories for the control period, past trends have been used. The petitioner has calculated the CAGR of last 3 years and 5 years considering FY 2010-11 as a base year and decided to project the sales based on modified CAGR of last 5 years. It seems to be the realistic estimate. The CAGR of last 3 years and 5 years is tabulated in the table mentioned below:
- For projecting sales of DMRC category, average of energy sales for the last 5 months has been considered. Further no growth has been considered in this category during the second control period.
- Inter-slab allocation of units is projected as per actuals of FY 2009-10 for first 9 months and estimations of fourth quarter on the basis of estimates of fourth quarter of FY 2011-12.
- For a realistic estimate of connected load, last 5 years and 3 years CAGR is having an average of 2.18% every year. Further no. of consumers has been projected based on the last 3 years CAGR.

**Table 4.1-1 : CAGR for estimating sales**

S.No.	Category	CAGR for Projecting Sales : Base year FY 2010-11				
		last	Modified	last	modified	rate
		5 years	5 years	3 years	3 years	adopted
1	Domestic					
	<i>Single Delivery Point</i>	5.87%	5.87%	6.68%	6.68%	5.87%
	<i>Multiple Delivery Point</i>	1.92%	1.92%	4.13%	4.13%	1.92%
	<i>Power</i>	-1.93%	0.00%	-0.41%	0.00%	0.00%
2	Non-Domestic					



S.No.	Category	CAGR for Projecting Sales : Base year FY 2010-11				
		last	Modified	last	modified	rate
		5 years	5 years	3 years	3 years	adopted
	Single phase (upto <5 KW)	-1.48%	0.00%	-0.19%	0.00%	0.00%
	Three phase (upto >5 KW to 100 KW)	1.69%	1.69%	0.05%	0.05%	1.69%
3	Mixed Load					
	Supply on 11 KV	6.99%	6.99%	7.63%	7.63%	6.99%
	Supply on LT (400V) where supply is given from NDMC sub-station	-7.71%	0.00%	-4.19%	0.00%	0.00%
	Where the applicant provides built up space for sub-station	0.27%	0.27%	1.54%	1.54%	0.27%
4	Small Industrial Power-SIP	-0.96%	0.00%	4.69%	4.69%	0.00%
5	Public Lighting (including lights)	0.98%	0.98%	-1.42%	0.00%	0.98%
6	DMRC (at 66 KV and 33 KV)	average of 5 months				2.80
7	Others (including NDMC employees)					
8	JJ Clusters (flat rate consumers)	14.49%	14.49%	4.71%	4.71%	14.49%
	Average Growth Rate	3.48%	3.48%	4.12%	4.12%	2.42%

Based on the above assumptions the category-wise sales for the control Period is tabulated below:

**Table 4.1-2 : Estimated Category wise sales for the control period**

S.No.	Category	Sales (MU) (projections)		
		FY 12-13	FY 13-14	FY 14-15
1	Domestic	240.30	247.97	255.98
	Single Delivery Point	85.07	90.06	95.35
	Multiple Delivery Point	139.65	142.33	145.06
	Power	15.58	15.58	15.58
2	Non-Domestic	219.49	222.48	225.53
	Single phase (upto <5 KW)	42.81	42.81	42.81
	Three phase (upto >5 KW to 100 KW)	176.68	179.67	182.72
3	Mixed Load	746.65	785.13	826.27



S.No.	Category	Sales (MU) (projections)		
		FY 12-13	FY 13-14	FY 14-15
	Supply on 11 KV	542.56	580.49	621.07
	Supply on LT (400V) where supply is given from NDMC sub-station	3.97	3.97	3.97
	Where the applicant provides built up space for sub-station	200.13	200.68	201.23
4	Small Industrial Power-SIP	0.31	0.31	0.31
5	Public Lighting (including lights)	14.50	14.64	14.79
6	DMRC (at 66 KV and 33 KV)	33.56	33.56	33.56
7	Others (including NDMC employees)	6.98	7.99	9.15
8	JJ Clusters (flat rate consumers)	2.04	2.04	2.04
	Total	1263.83	1314.13	1367.62

The category wise numbers of consumers and connected load have been considered using the last 3 and 5 years CAGR

**Table 0-1 : Estimated growth – number of consumers**

S.No.	Category	No. of Consumers (No.s)		
		(projections)		
		FY 12-13	FY 13-14	FY 14-15
1	Domestic	42956	43191	43430
	Single Delivery Point	6738	6878	7021
	Multiple Delivery Point	33846	33941	34037
	Power	2372	2372	2372
2	Non-Domestic	19846	19846	19846
	Single phase (upto <5 KW)	13583	13583	13583
	Three phase (upto >5 KW to 100 KW)	6263	6263	6263
3	Mixed Load	548	555	562
	Supply on 11 KV	208	214	221
	Supply on LT (400V) where supply is given from NDMC sub-station	14	14	15
	Where the applicant provides built up space for sub-station	326	326	326
4	Small Industrial Power-SIP	8	8	8
5	Public Lighting (including lights)	67	67	67
6	DMRC (at 66 KV and 33 KV)	1	1	1



S.No.	Category	No. of Consumers (No.s)		
		(projections)		
		FY 12-13	FY 13-14	FY 14-15
7	Others (including NDMC employees)	2524	2604	2686
8	JJ Clusters (flat rate consumers)	1729	1764	1799
	Total	67679	68036	68399

**Table 0-2 : Estimated growth – Load (in MW)**

S.No.	Category	Connected Load (MW)		
		(projections)		
		FY 12-13	FY 13-14	FY 14-15
1	Domestic	127.72	137.64	148.60
	Single Delivery Point	66.68	74.71	83.70
	Multiple Delivery Point	51.20	53.01	54.89
	Power	9.84	9.93	10.01
2	Non-Domestic	133.54	136.00	138.49
	Single phase (upto <5 KW)	19.46	19.73	20.02
	Three phase (upto >5 KW to 100 KW)	114.09	116.26	118.48
3	Mixed Load	333.20	350.23	368.37
	Supply on 11 KV	214.29	229.51	245.80
	Supply on LT (400V) where supply is given from NDMC sub-station	2.02	2.02	2.02
	Where the applicant provides built up space for sub-station	116.89	118.70	120.54
4	Small Industrial Power-SIP	0.12	0.12	0.12
5	Public Lighting (including lights)	1.60	1.62	1.63
6	DMRC (at 66 KV and 33 KV)	8.50	8.50	8.50
7	Others (including NDMC employees)			
8	JJ Clusters (flat rate consumers)	3.52	3.75	0.00
	Total	608.21	637.86	665.73



## 4.2 Estimated Revenue Billed

The petitioner has estimated the Revenue Billed (fixed and energy charges) as per the tariff for each tariff slab approved by the Hon'ble Commission in its Tariff Order dated 26.08.2011.

The power factor for each tariff slab where the tariff is specified in kVA/ kVAh terms has been considered at the same level as considered by the Hon'ble Commission in its tariff order for FY 11-12.

Based on the units calculated from the methodology described above, the petitioner has projected the total revenue billed for FY 2012-13, FY 2013-2014 and FY 2014-15 to be Rs. 731.46 Crores, Rs. 763.79 and Rs.798.47 Crores respectively. The total revenue billed is exclusive of E-Tax. The category wise revenue billed for the entire control period is tabulated below:

**Table 4.2-1 : Category wise Revenue Billed (Net of E-Tax) during the control period**

S.No.	Category	Revenue Billed (Rs. Crores)					
		(Projections)					
		FY 12-13		FY 13-14		FY 14-15	
		Fixed Cost	Energy Charges	Fixed Cost	Energy Charges	Fixed Cost	Energy Charges
1	Domestic	1.53	83.83	1.65	86.60	1.78	89.51
	Single Delivery Point	0.80	32.81	0.90	34.74	1.00	36.78
	Multiple Delivery Point	0.61	44.24	0.64	45.09	0.66	45.95
	Power	0.12	6.78	0.12	6.78	0.12	6.78
2	Non-Domestic	1.60	130.46	1.63	132.29	1.66	134.15
	Single phase (upto <5 KW)	0.23	22.69	0.24	22.69	0.24	22.69
	Three phase (upto >5 KW to 100 KW)	1.37	107.77	1.40	109.60	1.42	111.46
3	Mixed Load	54.73	409.61	57.47	430.50	60.39	452.83
	Supply on 11 KV	34.20	294.37	36.62	314.94	39.22	336.96
	Supply on LT (400V) where supply is given from NDMC sub-station	0.39	2.41	0.39	2.41	0.39	2.41
	Where the applicant provides built up space for sub-station	20.14	112.84	20.46	113.15	20.77	113.46
4	Small Industrial Power-SIP	0.00	0.16	0.00	0.16	0.00	0.16
5	Public Lighting (including lights)	0.00	8.12	0.00	8.20	0.00	8.28



S.No.	Category	Revenue Billed (Rs. Crores)					
		(Projections)					
		FY 12-13		FY 13-14		FY 14-15	
		Fixed Cost	Energy Charges	Fixed Cost	Energy Charges	Fixed Cost	Energy Charges
6	DMRC (at 66 KV and 33 KV)	1.09	13.57	1.09	13.57	1.09	13.57
7	Others (including NDMC employees)						
8	JJ Clusters (flat rate consumers)	0.04	26.71	0.04	30.59	0.05	35.02
	Total	58.99	672.47	61.88	701.91	64.97	733.51

**Table 4.2-2 : Total Revenue billed for the entire control period**

S.No.	Category	Revenue Billed (Rs. in Crores)		
		(projections)		
		FY 12-13	FY 13-14	FY 14-15
1	Domestic	85.36	88	91
	Single Delivery Point	33.62	35.64	37.78
	Multiple Delivery Point	44.85	45.72	46.61
	Power	6.89	6.90	6.90
2	Non-Domestic	132.06	133.92	135.81
	Single phase (upto <5 KW)	22.92	22.93	22.93
	Three phase (upto >5 KW to 100 KW)	109.14	110.99	112.88
3	Mixed Load	464.34	487.97	513.21
	Supply on 11 KV	328.56	351.57	376.19
	Supply on LT (400V) where supply is given from NDMC sub-station	2.79	2.79	2.79
	Where the applicant provides built up space for sub-station	132.98	133.60	134.23
4	Small Industrial Power-SIP	0.16	0.16	0.16
5	Public Lighting (including lights)	8.12	8.20	8.28
6	DMRC (at 66 KV and 33 KV)	14.65	14.65	14.65
7	Others (including NDMC employees)			
8	JJ Clusters (flat rate consumers)	26.76	30.63	35.07
	Total	731.46	763.79	798.47



### 4.3 Collection Efficiency

As per the MYT Regulations 2011, the Collection Efficiency is defined as follows:

*“Collection efficiency, which shall be measured as ratio of total revenue realised to the total revenue billed in the same year*

*Provided that revenue realisation from electricity duty and late payment surcharge shall not be included for computation of collection efficiency”*

The petitioner has considered 99% collection efficiency for the entire control period and for estimation of AT & C Losses.

**Table 4.3-1 : Collection Efficiency for the entire control period**

S.No.	Category	Collections		
		(Projections)		
		FY 12-13	FY 13-14	FY 14-15
1	Tariff Revenue realized	665.74	694.89	726.17
2	E-Tax realized	0.00	0.00	0.00
3	Demand Charges realized	58.40	61.26	64.32
4	LT surcharge collected	0.00	0.00	0.00
	Total	724.14	756.15	790.49
5	Arrears	0.00	0.00	0.00
6	Transfer Entry from NDMC for usage of electricity by NDMC buildings*	0.00	0.00	0.00
7	Total Tariff Revenue Collected	724.14	756.15	790.49
8	Revenue Billed	731.46	763.79	798.47
9	Collection Efficiency	99%	99%	99%

\*Transfer entry will be reflected in the books of NDMC after the closure of corresponding financial year and will be considered later on as per the actuals in the true up.

### 4.4 Distribution Loss

As per the MYT Regulations 2011, the distribution loss is defined as follows:

*“Distribution losses, which shall be measured as the difference between the net units input into the distribution system for sale to all its consumer and sum of the total energy billed in its Licence area in the same year;”*



The petitioner has envisaged a distribution loss reduction during the second control period considering the impact of the expenditure incurred/incurred towards strengthening of the distribution system of NDMC. The petitioner also envisaged the accounting of the energy consumed by un-metered consumers. Accordingly, the distribution loss reduction trajectory is tabulated below:

**Table 4.4-1 : Distribution Loss for the entire control period**

S.N.	Particulars	FY 2012-13	FY 2013-14	FY 2014-15
1.	Distribution Loss	9.35%	9.10%	8.85%

#### 4.5 AT&C Loss

As per the MYT Regulations, 2011 notified by the Hon'ble Commission, AT&C Loss is defined as follows:

*“AT&C Loss, which shall be measured as the difference between the units input into the distribution system for sale to all its consumer and the units realised wherein the units realised shall be equal to the product of units billed and collection efficiency:*

*Provided that units billed shall include the units realised on account of theft measured on actual basis i.e. number of units against which payment of theft billing has been realised”*

Accordingly, the AT&C Loss for the control period is tabulated below considering 99% collection efficiency of revenue billed during control period.

**Table 4.5-1 : AT&C Loss during the control period**

S.No.	Particulars	AT&C losses (in %age)		
		FY 12-13	FY 13-14	FY 14-15
1	Distribution Loss (%)	9.35%	9.10%	8.85%
2	Collection Efficiency (%)	99.00%	99.00%	99.00%
3	AT&C losses (%)	10.26%	10.01%	9.76%

#### 4.6 Energy Availability

The energy requirement for the Petitioner is projected to be met from various sources namely:

- Power Purchase from Dadri Power Station.



- Power Purchase from plants located in Delhi.
- Bilateral Power Purchase.
- Inter Discom Purchase.

The Petitioner's allocation from various power stations from which it sources the power is given in table below:

**Table 4.5-2 : Capacity Allocation**

	NDMC Share (MW)	Firm Allocation (85%) (MW)	Share from Unallocated Power (MW)	Total Share (MW)	%age Share
NTPC - Dadri TPS	125	106.25	2.06	108.31	12.894%
NTPC - Badarrpur TPS	125	106.25	1.78	108.03	15.323%
IPGCL - Gas Turbine*	0	0.00	0.73	0.73	0.270%
IPGCL – Rajghat*	0	0.00	0.36	0.36	0.267%
Pragati Power Corp I	100.00	85.00	0.90	85.9	26.030%
PPCL III	100.00	100	0.00	100.00	6.67%

\*The allocation from IPGCL-Gas Turbine and Rajghat is not under firm allocation to NDMC.

For meeting the supply-demand gap during the peak hours, the Petitioner projects to rely upon Bilateral and Inter Discom power purchase. However, if inevitable, the Petitioner also plans resorts to Unscheduled Interchange to meet further gap.

Detailed methodology of projecting the power availability from various sources is detailed below.

#### **4.7 Power Purchase Projection for MYT Period 13 – 15**

The Petitioner has considered average PLF of past 21 months from April 2010 to December 2011 of the allocated generating units and auxiliary consumption as per CERC Terms-and-Conditions-of Tariff Regulations 2009-2014 for Dadri TPS and Badarpur TPS and As per DERC Terms and Conditions for Determination of Generation Tariff Regulations, 2011 for Pragati Power Station, IPGCL - Gas Turbine Station and IPGCL – Rajghat Station for projection power purchase quantum for FY 2012-13, 2013-14 and 2014-15.

The Power to the tune of 1500 MW of PPCL-III is also envisaged to commence supply power from 01 May 2012 onwards (of which 750 MW is projected to come from 01 April 2012). The Commission in the tariff order for FY 2011-12 had fixed Petitioner's share at 100 MW from PPCL-III of the 1500 MW total capacity and the same share has been considered



for analysis. PLF of the generating unit is assumed at 85% and auxiliary consumption at 3% for FY 2012-13, 2013-14 and 2014-15.

A gist of average PLF and auxiliary consumption is given in table below:

**Table 0-1 : PLF and Auxiliary consumption**

	Average PLF %	Auxiliary Consumption %
NTPC - Dadri TPS	87.06%	9.00%
NTPC - Badarrpur TPS	74.90%	9.50%
IPGCL - Gas Turbine	57.14%	3.00%
IPGCL - Rajghat	68.16%	11.28%
Pragati Power Corp	79.16%	3.00%
PPCL III	85.00%	3.00%

The increase in energy availability in last few years has helped the Petitioner in meeting the growing peak demand from the consumers within its distribution area during the year. Further, these additional capacities have resulted in substantial energy surplus to the Petitioner. As such for FY 2012-13, 2013-14 and 2014-15 bilateral and inter discom purchase are assumed at zero and surplus energy is sold by the Petitioner under bilateral arrangement, IEX, UI and to other discoms in Delhi.

Petitioner submits to the Hon'ble Commission to approve the revised Power Purchase quantum projected for FY 2012-13, 2013-14 and 2014-15 in table below.

**Table 0-2 : Power purchase Projection for MYT Period 2013-15**

	FY 2012-13	FY 2013-14	FY 2014-15
	Power Purchase in MUs		
Dadri TPS	751.72	751.72	751.72
PGCIL Transmission losses	43.68	43.68	43.68
Power at Delhi periphery from Dadri TPS	708.05	708.05	708.05
Badarpur TPS	641.43	641.43	641.43
Pragati Power I	577.79	577.79	577.79
IPGCL - GTS	3.54	3.54	3.54
IPGCL - Rajghat	1.91	1.91	1.91
PPCL - III	692.58	722.26	722.26
Gross Power Purchase Quantum	2625.30	2654.98	2654.98
DTL Transmission losses	32.82	33.19	33.19



	FY 2012-13	FY 2013-14	FY 2014-15
	Power Purchase in MUs		
Power at NDMC periphery	2592.48	2621.79	2621.79
Intra state - discom sales	1198.30	1176.11	1121.38
Bilateral sales			
UI net purchase/(sale)			
Energy Available NDMC periphery for retail Sale	1394.19	1445.68	1500.41

#### 4.8 Power Purchase Cost Projection for MYT Period 13 – 15

Power purchase cost from generating units is projected in two parts providing for fixed capacity charge and variable energy charge.

Fixed capacity charges is derived after considering factors viz. PAFM (last 21 months average from April 2010 to December 2011), approved annual fixed charges as per the latest tariff orders, approved NAPAF as per tariff regulation for respective generating units and petitioners %age share in the generating units installed capacity.

Based on the approved annual fixed charges for FY 2009 -10 to 2013-14, the petitioner has computed CAGR of 2.91% and 9.39% of Dadri TPS and Badarpur TPS respectively to derive the annual fixed charge for FY 2014-15. In case of Pragati Power I, IPGCL – GTS, IPGCL – Rajghat CAGR is calculated based on approved annual fixed charges for FY 2007 - 08 to 2011-12. The computed CAGR of 2.95%, 16.03% and 26.13% is then applied to derive annual fixed charges of Pragati Power I, IPGCL – GTS, IPGCL – Rajghat respectively for FY 2012-13 to 2014-15.

Variable energy charge of FY 2011-12 of all generating units Dadri TPS, Badarpur TPS , Pragati Power I, IPGCL – GTS, IPGCL – Rajghat is escalated at 5% per annum to derive the variable energy charge through FY 2014-15.

Power purchase cost of PPCL – III has been assumed at Rs 4.07 per unit as per the latest tariff order.

The Petitioner requests the Hon'ble Commission to approve the revised power purchase cost as submitted for FY 2012-13, 2013-14 and 2014-15 in the table below

**Table 0-3 Projections of Power Purchase Cost for MYT Period (FY 2012-13 to FY 2014-15)**

	Quantum (MUs)	Fixed Cost (Rs Cr)	Variable Cost (Rs Cr)	Other Cost (Rs Cr)	Total Cost (Rs Cr)	Fixed Cost per unit	Variable Cost per unit	Total Cost per unit



	Quantum (MUs)	Fixed Cost (Rs Cr)	Variable Cost (Rs Cr)	Other Cost (Rs Cr)	Total Cost (Rs Cr)	Fixed Cost per unit	Variable Cost per unit	Total Cost per unit
<b>FY 2012 - 2013</b>								
Dadri TPS	751.72	71.80	231.99	0.00	303.79	0.96	3.09	4.04
Badarpur TPS	641.43	73.75	212.79	0.00	286.54	1.15	3.32	4.47
Pragati Power I	577.79	67.92	132.81	9.35	210.08	1.18	2.30	3.64
IPGCL - GTS	3.54	0.60	1.13	0.00	1.72	1.68	3.18	4.86
IPGCL - Rajghat	1.91	0.57	0.53	0.00	1.11	3.00	2.80	5.80
PPCL - III	692.58	0.00	281.88	0.00	281.88	0.00	4.07	4.07
	2668.97	214.64	861.12	9.35	1085.11	0.80	3.23	4.07
<b>FY 2013 - 2014</b>								
Dadri TPS	751.72	75.06	243.59	0.00	318.65	1.00	3.24	4.24
Badarpur TPS	641.43	83.12	223.43	0.00	306.55	1.30	3.48	4.78
Pragati Power I	577.79	69.93	139.45	9.35	218.72	1.21	2.41	3.79
IPGCL - GTS	3.54	0.69	1.18	0.00	1.88	1.95	3.34	5.29
IPGCL - Rajghat	1.91	0.72	0.56	0.00	1.28	3.79	2.94	6.72
PPCL - III	722.26	0.00	293.96	0.00	293.96	0.00	4.07	4.07
	2698.65	229.53	902.17	9.35	1141.04	0.85	3.34	4.23
<b>FY 2014 - 2015</b>								
Dadri TPS	751.72	77.25	255.76	0.00	333.01	1.03	3.40	4.43
Badarpur TPS	641.43	90.93	234.60	0.00	325.53	1.42	3.66	5.08
Pragati Power I	577.79	71.99	146.42	9.35	227.76	1.25	2.53	3.94
IPGCL - GTS	3.54	0.80	1.24	0.00	2.05	2.26	3.51	5.77
IPGCL - Rajghat	1.91	0.91	0.59	0.00	1.50	4.78	3.08	7.86
PPCL - III	722.26	0.00	293.96	0.00	293.96	0.00	4.07	4.07
	2698.65	241.88	932.58	9.35	1183.80	0.90	3.46	4.39

#### 4.9 Transmission Losses and Charges

The Petitioner has considered PGCIL losses in the Northern Region at 5.81% and losses in DTL network at 1.25% as considered by the Commission in the latest MYT tariff order 2011.

PGCIL transmission charges for the projection period are projected as per CERC order dated 29/6/2011, for POC (point of contact) rates and escalated at 5% per annum, similarly



base DTL charges of FY 2011-12 are escalated at 5% per annum to derive DTL charges through FY 2014-15 .

**Table 0-4 Projected Transmission Losses and Cost for MYT Period 2013-15**

	FY 2012-13	FY 2013-14	FY 2014-15
Transmission Losses ( MU)			
Inter-state transmission	43.68	43.68	43.68
Intra-state transmission	32.82	33.19	33.19
Total Transmission Losses ( MU)	76.49	76.86	76.86
Transmission Charges (Rs Cr)			
Inter-state transmission	20.25	21.26	22.32
Intra-state transmission	125.11	131.36	137.93
Total Transmission Charges (Rs Cr)	145.35	152.62	160.25

#### 4.10 Sale of Surplus Power

The Petitioner projects sale of surplus energy at Rs. 3.50 unit, the projected revenue from sale of surplus energy for MYT period 2013-15 is given in table below.

**Table 0-5 Projection of Sale of Surplus Power for MYT Period 2013-15**

	FY 2012-13	FY 2013-14	FY 2014-15
Sale of Surplus Power ( MU)			
Intra state - discom sales			
Bilateral sales	1198.30	1176.11	1121.38
UI net purchase/(sale)			
Total	1198.30	1176.11	1121.38
Sale of Surplus Power (Rs Cr)			
Intra state - discom sales			
Bilateral sales	419.40	411.64	392.48
UI net purchase/(sale)			
Total	419.40	411.64	392.48

#### 4.11 Energy Balance

The following table shows the projected energy balance arrived at for MYT period 2013-15 after considering the projected sales, AT&C loss levels, transmission losses, power purchase and sale of surplus power.



**Table 0-6 Projected Energy Balance for MYT Period 2013-15**

	FY 2012 - 13			FY 2013 - 14			FY 2014 - 15		
	MU	Amt Rs.Crs	Avg Cost (Rs)	MU	Amt Rs.Crs	Avg Cost (Rs)	MU	Amt Rs.Crs	Avg Cost (Rs)
Dadri TPS	751.72	303.79	4.04	751.72	318.65	4.24	751.72	333.01	4.43
PGCIL Transmission losses	43.68	-		43.68	-		43.68		
Power at Delhi periphery from Dadri TPS	708.05	303.79	4.29	708.05	318.65	4.50	708.05	333.01	4.70
Badarpur TPS	641.43	286.54	4.47	641.43	306.55	4.78	641.43	325.53	5.08
Pragati Power I	577.79	210.08	3.64	577.79	218.72	3.79	577.79	227.76	3.94
IPGCL – GTS	3.54	1.72	4.86	3.54	1.88	5.29	3.54	2.05	5.77
IPGCL - Rajghat	1.91	1.11	5.80	1.91	1.28	6.72	1.91	1.50	7.86
PPCL – III	692.58	281.88	4.07	722.26	293.96	4.07	722.26	293.96	4.07
Gross Power Purchase	2625.30	1085.11	4.13	2654.98	1141.04	4.30	2654.98	1183.80	4.46
DTL Transmission losses	32.82	-	-	33.19		-	33.19		-
Power at NDMC periphery	2592.48	1085.11	4.19	2621.79	1141.04	4.35	2621.79	1183.80	4.52
Sale of Surplus Power	1198.30	419.40	3.50	1176.11	411.64	3.50	1121.38	392.48	3.50
Energy Required for Retail Sale	1394.19	665.71	4.77	1445.68	729.40	5.05	1500.41	791.32	5.27
Distribution loss (%)	9.35%		-	9.10%		-	8.85%		-
Distribution loss (MU)	130.36		-	131.56		-	132.79		-
Sale of Retail Power	1263.83		-	1314.13		-	1367.62		-

#### 4.12 Operation and Maintenance Expenses

The Petitioner has projected the O&M expenses as per the methodology specified in the MYT Regulations, 2011, However, the petitioner would like to mention here that O&M Expenses are also subjected to uncontrollable factors like wage revision due to impact of Pay Commission Recommendation and general uncontrollable inflationary pressures. The Petitioner submits individual projections of its Employee Expenses, Repairs and Maintenance (R&M) Expenses and Administrative and General (A&G) Expenses based on 9 months actuals of FY 2011-12 and estimations for remainder year of FY 2011-12.



#### 4.12.1 Increase in Inflation Index

As per the MYT Regulations, 2011 for determination of distribution tariff, employee and A&G expenses for the Control Period shall be determined using the following methodology:

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

The inflation factor for the nth year (INDX<sub>n</sub>) is determined using a combination of Consumer Price Index (CPI) and Wholesale Price Index (WPI) for the nth year as shown below:

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

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 5 years. Accordingly the Petitioner has computed the inflation factor of 8.44% as tabulated in the table below:

**Table 4.12.1-1 : Inflation Factor for the Control Period**

Financial Year	CPI	0.55 * CPI	WPI	0.45 * WPI	Overall Index	% increase
FY 06-07	125	68.75	111	50.11	118.86	
FY 07-08	133	73.01	117	52.48	125.49	5.58%
FY 08-09	145	79.66	126	56.71	136.37	8.66%
FY 09-10	163	89.51	131	58.87	148.38	8.81%
FY 10-11	180	98.86	143	64.50	163.36	10.09%
FY 11-12	196	107.96	156	70.22	178.18	9.07%
Escalation Factor for the control period						8.44%

The methodology specified for projecting Repairs and Maintenance (R&M) by the MYT Regulations, 2011 is  $R\&M_n = K * GF_{n-1}$  and the same has been adopted by the petitioner, with the K factor being same as has been prescribed by the Commission in MYT Order 2007 and followed in tariff order dated 26.08.2011 issued by the Commission

The Employee Costs, A&G and R&M expenses component of O&M expenses for the control period are projected below:



**Table 4.12.1-2 : O&M Expenses (Rs. Crores)**

	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Escalation Factor	1.0466	1.0844	1.0844	1.0844
Base A&G Costs (Rs Cr)	14.11			
Projected A&G Costs (Rs Cr)		15.30	16.59	18.00
Base Employee Costs (Rs Cr)	85.46			
Projected Employee Costs (Rs Cr)		92.68	100.50	108.99
K factor	0.0499			
GFA <sub>n-1</sub>		1050.0	1118.7	1150.4
Projected R&M Costs (Rs Cr)		52.40	55.82	57.40
O&M Expenses		160.37	172.92	184.39
Employee expenses capitalized		10.86	11.77	12.77
Net O&M Expenses		149.52	161.15	171.62

#### **4.12.2 Allocation of Administrative Department and Civil Engineering Department Expenses of NDMC**

The Petitioner submits 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 works of works undertaken for electricity substation, lines etc. 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.

The Petitioner proposes an escalation as per the MYT regulations 2007 and 2011 over the actual Administrative & Civil Engineering Department expenses of FY 2010-11.

The Petitioner continues to follow the Hon'ble Commission Order dated 2nd November 2005 for allocation of expenditure relating Administrative Departments to Electricity Supply. In line with the aforesaid Order NDMC has allocated 19% of the employee salaries Administrative Departments (except for the salaries of electricity supply business) to the electricity supply business.



**Table 4.12.2-1 : Administrative and Civil Engineering Expenses (Rs. Crores)**

Administrative and Civil Engineering Expenses	PY	CY	MYT Period		
	FY11	FY12	FY13	FY14	FY15
	Actual				
Escalation Factor		1.0466	1.0844	1.0844	1.0844
Administrative Department expenses	270.25	282.84	306.72	332.63	360.72
Pension liabilities of NDMC	103.34	108.15	117.29	127.19	137.93
<b>Total Salary expenses</b>	<b>373.59</b>	<b>390.99</b>	<b>424.01</b>	<b>459.82</b>	<b>498.65</b>
Allocation of Admin related expenses to Electricity Supply Business of NDMC @19%	70.98	74.29	80.56	87.37	94.74
Cost of Civil Engineering Department	11.77	12.32	13.36	14.49	15.71
<b>Total allocation of Admin and Civil Engineering Department to Electricity Distribution Business</b>	<b>82.75</b>	<b>86.61</b>	<b>93.92</b>	<b>101.85</b>	<b>110.45</b>

#### 4.12.3 Capital Investment

The Petitioner had submitted its investment plan for period FY 2012-13 TO FY 2014-15 to the Commission in July 2011, The summary of the investment plan has been provided in the table below.

**Table 4.12.3-1 : Capital Investment Plan for MYT 13-15 (Rs. Crores)**

Particulars	FY13	FY14	FY15
Capital Investments Plan on new schemes# proposed during FY 2012-13 to FY 2014-15			
AT&C Loss Reduction	13.00	11.00	6.00
System Reliability Improvement Works	6.88	3.00	3.15
Load Growth	2.00	2.38	2.28
Capital Repairs	0.00	0.00	0.00
	21.88	16.38	11.43
Capital Investments Plan on old schemes/ongoing schemes spill over to FY 2011-12 to FY 2014-15			
AT&C Loss Reduction	0.10	0.00	0.00
System Reliability Improvement Works	8.62	0.00	0.00
Load Growth	15.00	1.30	0.00



Particulars	FY13	FY14	FY15
Capital Repairs	0.00	0.00	0.00
	23.72	1.30	0.00
<b>Total</b>	<b>45.60</b>	<b>17.68</b>	<b>11.43</b>

#### Asset Capitalisation

The Petitioner proposed to capitalize assets as per the methodology followed in the previous tariff orders i.e. the entire opening capital works in progress and 50% of the capital expenditure of a financial year is capitalized in the said financial year.

**Table 4.12.3-2 :Proposed Capitalisation for MYT 13-15 (Rs. Crores)**

Particular	FY13	FY14	FY15
Opening CWIP	45.91	22.80	8.84
Additions to CWIP	45.60	17.68	11.43
Capitalization of Investment	68.71	31.64	14.56
Closing CWIP	22.80	8.84	5.72

#### 4.13 Depreciation

The Petitioner submits to apply an average rate of depreciation for distribution assets @ 3.60 % for computing depreciation for the MYT Period in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2004.

**Table 4.13-1 : Depreciation (Rs. Crores)**

Particulars	FY13	FY14	FY15
Opening Balance of Fixed Assets	1050.02	1118.73	1150.37
Addition during the year	68.71	31.64	14.56
Retirement during the year	0.00	0.00	0.00
Closing Balance of Fixed Assets	1118.73	1150.37	1164.92
Avg. fixed assets	1084.37	1134.55	1157.65
Rate of Depreciation (%)	3.60%	3.60%	3.60%
Depreciation	39.04	40.84	41.68



#### 4.14 Return on Capital Employed

The Petitioner submits the computation of the Return on Capital Employed (RoCE) as per the principles laid down by the Hon'ble Commission under Section 5.6 of the MYT Regulations, 2011. For calculating RoCE the Petitioner has adopted of normative debt – equity ratio of 70:30, and calculated WACC considering return on equity at the rate of 16% and cost of debt at 11.50%. Detailed calculation of Regulated Rate Base, Change in Working Capital, WACC leading up to estimation of RoCE is shown in table below.

**Table 4.14-1 : Return (Rs. Crores)**

Particulars		FY12	FY13	FY14	FY15
<b>Regulated Return Base</b>					
CBFA	A	1050.02			
Opening WC	B	30.64			
Accumulated Depreciation	C	360.05			
RB (Opening)	D		<b>720.60</b>	<b>783.82</b>	<b>779.97</b>
<b>Δ AB</b>	E = F-G-H		<b>29.67</b>	<b>-9.20</b>	<b>-27.12</b>
Investments in the Year	F		68.71	31.64	14.56
Depreciation	G		39.04	40.84	41.68
Consumer Contribution	H		0.00	0.00	0.00
Change in WC	I		33.55	5.35	5.65
RB (Closing)	J = D+E+I	720.60	783.82	779.97	758.50
<b>Regulated Rate Base (RRBi)</b>	<b>K = D+(E/2)+I</b>		768.98	784.57	772.06
Debt		451.93	518.87	553.99	570.16
Equity		536.82	565.51	580.57	587.50
Rate of return on Equity			16.00%	16.00%	16.00%
Rate of Return on Debt			11.50%	11.50%	11.50%
<b>WACC</b>			<b>13.8%</b>	<b>13.8%</b>	<b>13.8%</b>
<b>Return on Capital Employed</b>			<b>106.48</b>	<b>108.29</b>	<b>106.42</b>
<b>Working Capital</b>					
<b>O&amp;M expenses</b>		131.91	149.52	161.15	171.62
R&M expenses		45.21	52.40	55.82	57.40
A&G expenses		14.39	15.30	16.59	18.00
Employee expenses		72.31	81.82	88.73	96.22
<b>1/12th of total</b>		<b>10.99</b>	<b>12.46</b>	<b>13.43</b>	<b>14.30</b>



Particulars	FY12	FY13	FY14	FY15
<b>Receivables</b>	645.47	731.46	763.79	798.47
Receivables equivalent to 2 months average billing	107.58	121.91	127.30	133.08
<b>Power Purchase expenses</b>	702.90	811.06	882.02	951.57
1/12th of power purchase expenses	58.58	39.82	39.82	39.82
<b>Consumer Security Deposit</b>	29.36	30.36	31.37	32.37
<b>Total</b>	<b>30.64</b>	<b>64.18</b>	<b>69.53</b>	<b>75.18</b>
Change in WC	-7.88	33.55	5.35	5.65

#### 4.15 Non-Tariff Income

The Petitioner has projected non-tariff income as per actuals for first 9 months and estimates for remainder year for FY 2011-12. The Petitioner has submitted the details of Non-Tariff Income (NTI) for the MYT Period in the table given below.

**Table 4.15-1 : Non-Tariff Income (Rs. Crores)**

Particulars	FY13	FY14	FY15
Miscellaneous receipts	6.72	7.05	7.41
Meter Rent	0.41	0.43	0.45
Recovery from theft of energy	3.59	3.77	3.96
Service Administrative Charges	0.7	0.74	0.78
Sale & Hire charges	0.02	0.02	0.03
Misc. charges from consumers	3.79	3.98	4.18
Delayed payment surcharge from consumers	1.37	1.44	1.51
New connection/re-connection fees	0.27	0.28	0.30
Recovery of cost of burnt meters/metering equipment's	0.04	0.04	0.05
Meter testing charges	0.01	0.01	0.01
Recovery on deposit work	2.10	2.20	2.31
	1.38	1.44	1.52
<b>Total</b>	<b>20.39</b>	<b>21.41</b>	<b>22.48</b>



#### 4.16 Aggregate Revenue Requirement during the control period

The table given below provides a summary of the Aggregate Revenue Requirement (ARR) as proposed by the Petitioner for MYT Period 2013-15.

**Table 4.16-1 : Computation of Aggregate Revenue Requirement (Rs. Crores)**

S.N.	Particulars	Projections		
		FY13	FY14	FY15
1.	Cost of Power Purchase	665.71	729.40	791.32
2.	Inter-State Transmission Charges	20.25	21.26	22.32
3.	Intra-State Transmission (Delhi Transco) charges	0.41	0.43	0.45
4.	Wheeling charges payable to other distribution licensee	124.70	130.93	137.48
5.	O&M Expenses			
6.	Repair & Maintenance Expenditure	52.40	55.82	57.40
7.	Employee Cost and Provisions	81.82	88.73	96.22
8.	Administration & General Expenses	15.30	16.59	18.00
9.	Depreciation	39.04	40.84	41.68
10.	Allocated Administrative and Civil Engineering Dept Exp	93.92	101.85	110.45
11.	RoCE	106.48	108.29	106.42
		1200.02	1294.16	1381.74
12.	Less : Non-Tariff Income	20.39	21.41	22.48
<b>13.</b>	<b>Aggregate Revenue Requirement</b>	<b>1179.63</b>	<b>1272.75</b>	<b>1359.26</b>
<b>14.</b>	<b>Revenue at Existing Tariff</b>	<b>731.46</b>	<b>763.79</b>	<b>798.47</b>
<b>15.</b>	<b>Revenue (Gap)/Surplus</b>	<b>(448.17)</b>	<b>(508.96)</b>	<b>(560.78)</b>



## 5. REVENUE GAP AND TREATMENT OF REVENUE GAP

### 5.1 Revenue Gap

As can be observed from the above, there will be a considerable revenue gap during the entire control period.

**Table 5.1-1 : Revenue Gap during the control period**

S.N.	Particulars	FY13	FY14	FY15
1.	Revenue (Gap)/Surplus	(448.17)	(508.96)	(560.78)

### 5.2 Tariff Proposal

In this section, the Petitioner has attempted to analyze the various components of total Revenue Gap during the Control Period. Based on the analysis of various components of the ARR, it is observed that the major factors attributable to projected revenue gap at existing tariff for the Control Period are as follows:

- a. Revenue Gap during the financial year
- b. Increase in Power Purchase price which is neither predictable and nor controllable.
- c. Recovery of Regulatory Assets/ Past under recovery.

The Petitioner submits that the revenue gap during the financial year, due to the factors other than power purchase price variation is predictable. The power purchase price variation and the creation of regulatory assets/ past under recovery are beyond the control of the Petitioner. Therefore the same is required to be recognized and recovered separately. This will enable the consumers and all stakeholders to identify the payable amount for the predictable items and the payable amount on account of unpredictable and or uncontrollable items such as power purchase price variation and regulatory assets recovery separately in a transparent manner. Further the above mechanism would avoid distortion of the base Retail Supply Tariff during the control period.

In order to recover the entire gap of control period, the tariff hike required would be in the range of 66-67%. Considering the above facts and recent tariff hike in FY 2011-12, the Petitioner proposes a reasonable tariff hike of 27% to recover the revenue gap of current



year FY 2011-12 and some of the revenue gap of the second control period. Accordingly the tariff proposed in the table below:

**Table 5.2-1 : Tariff Proposal**

Category Number	Category	Consumption Slab	Proposed Tariff (in Rs.)	
			Fixed Charges	Variable Charges
<b>A</b>	<b>Domestic</b>		<b>KW/month</b>	<b>/KWh</b>
1	Single Delivery Point	Lifeline (upto 50 units)	12.70	2.54
		0-100 units	12.70	2.54
		100-200 units	12.70	3.43
		200-400 units	12.70	4.57
		above 400 units	12.70	5.52
2	Separate Delivery Points	Lifeline (upto 50 units)	12.70	2.54
16		0-100 units	12.70	2.54
17		100-200 units	12.70	3.43
18		200-400 units	12.70	4.57
19		above 400 units	12.70	5.52
3	Domestic (Power)	NA	12.70	5.52
<b>B</b>	<b>Non - Domestic</b>		<b>KW/month</b>	<b>/KWh</b>
4	Single phase (upto <5 KW)	NA	12.70	6.73
8	Three phase (upto >5 KW to 100 KW)	NA	12.70	7.75
<b>C</b>	<b>Mixed Load</b>		<b>KVA/month</b>	<b>/KVAh</b>
9	Supply on 11 KV	NA	158.75	6.48
20	Supply on LT (400V) where supply is given from NDMC sub-station	NA	190.50	7.24
7	Where the applicant provides built up space for sub-station	NA	171.45	6.73
			<b>KW/month</b>	<b>/KVAh</b>
10	Small Industrial Power-SIP	NA	12.70	6.22
				<b>/KWh</b>
11	Public Lighting (including lights)	NA		7.11
			<b>KVA/month</b>	<b>/KVAh</b>
15	DMRC	NA	127.00	4.83
			<b>KW/month</b>	<b>/KWh</b>
14	Domestic, Lighting/fan and power Single delivery point	Lifeline (upto 50 units)	12.70	2.54
		0-100 units	12.70	2.54



Category Number	Category	Consumption Slab	Proposed Tariff (in Rs.)	
			Fixed Charges	Variable Charges
	(Others)	100-200 units	12.70	3.43
		200-400 units	12.70	4.57
		above 400 units	12.70	5.52
	JJ clusters	flat rate	222.25	Per month

Considering the tariff hike of 27%, NDMC still left with the huge revenue gap for second MYT period. The same has been tabulated as under:

**Table 5.2-2 : Revenue Gap during the second control period**

S.N.	Particulars	FY13	FY14	FY15
1.	Revenue (Gap)/Surplus after tariff hike	(250.68)	(302.74)	(345.20)



## **6. PRAYER**

**The Petitioner 'New Delhi Municipal Council' prays that the Hon'ble Commission may be pleased to:**

- a. Admit and allow the Petition for the Aggregate Revenue Requirement for the MYT Period i.e. FY 2013-FY 2015, Truing Up of expenses for FY 2010-11 and Annual Performance Review of FY 2011-12 as submitted herewith.
- b. Approve Aggregate Revenue Requirement for the Second Control Period i.e. FY 2012-13 to 2014-2015.
- c. True up the expenses for FY 2010-11 and Review the performance of NDMC for FY 2011-12 under the MYT Regime (in terms of the MYT Regulations, 2007) on account of uncontrollable factors such as power purchase costs, energy sales, and other costs before the Hon'ble Commission.
- d. Take into account the latest Tariff orders, if any, issued by Appropriate Commission for the Generating and Transmission Companies from which the Petitioner draws power, while determining the power purchase and transmission costs of the Petitioner.
- e. To take a prudent view on the estimates of aggregate revenue requirement for FY 2012-13 to 2014-2015
- f. To approve the revision of tariff as proposed for different categories of consumers to recover the uncovered gap of NDMC.
- g. To grant any other relief as the Hon'ble Commission may consider appropriate.
- h. To pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.
- i. To condone any error/ omission and to give opportunity to rectify the same.
- j. To permit the Petitioner to make further submissions, addition and alteration to this Petition as may be necessary from time to time.

Deponent

Secretary  
New Delhi Municipal Council  
Palika Kendra

**February 21, 2012  
New Delhi**