GUJARAT ELECTRICITY REGULATORY COMMISSION

Multi-Year Tariff Order:

Annual Performance Review for FY 2010-11,
Aggregate Revenue Requirement for the MYT Period FY 2011-16
and Determination of Tariff for FY 2011-12

For

MPSEZ Utilities Private Limited (MUPL)

Case No. 1070 of 2011

18th August, 2011

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(GERC)

AHMEDABAD

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ABBREVIATIONS

A&G	Administrative and General
APL	Adani Power Limited
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
AT&C Loss	Aggregate Technical and Commercial Loss
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
Crs	Crores
EA 2003	Electricity Act, 2003
F&A	Finance and Accounts
FPPPA	Fuel Price and Power Purchase Adjustment
FY	Financial Year
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Limited
GFA	Gross Fixed Assets
GUVNL	Gujarat Urja Vikas Nigam Limited
HT	High Tension
HTMD	High Tension Maximum Demand
kV	Kilo Volt
kVA	Kilo-Volt Amperes
kW	Kilo-Watt
kWh	Kilo-Watt Hour
LF	Load Factor
LT	Low Tension
MD	Maximum Demand
MPSEZL	Mundra Port and Special Economic Zone Limited
MUPL	MPSEZ Utilities Private Limited
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NFA	Net Fixed Assets
O&M	Operation and Maintenance
PF	Power Factor
PGVCL	Paschim Gujarat Vij Company Limited
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repairs and Maintenance
RoE	Return on Equity
SBI	State Bank of India
SEZ	Special Economic Zone
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange
u.p.f	Unity Power Factor
w.e.f.	With effect from
YoY	Year on Year

Before the Gujarat Electricity Regulatory Commission at Ahmedabad

Case No: 1070/2011

Date of the Order 18.08.2011

CORAM

Dr. P.K. Mishra, Chairman

Shri Pravinbhai Patel, Member

Dr. M.K. Iyer, Member

ORDER

1. Background and Brief History

1.1 Background

The MPSEZ Utilities Private Limited (hereinafter referred to as MUPL or Petitioner), a distribution Licensee, has filed its petition on 25th January, 2011 under Section 62 of the Electricity Act, 2003 read with Gujarat Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2005 and Gujarat Electricity Regulatory Commission (Multi-Year Tariff Framework) Regulations, 2007 for Annual Performance Review for FY 2010-11, determination of ARR for the control period FY 2011-12 to FY 2015-16 and Retail Supply Tariff for FY 2011-12.

The Commission has conducted a preliminary scrutiny and admitted the petition on 12th February, 2011 under Case No. 1070 of 2011.

1.2 MPSEZ Utilities Private Limited (MUPL)

The Petitioner, MPSEZ Utilities Private Ltd (MUPL) is a company incorporated in 2008 under the Companies Act, 1956. Another company, Mundra Port and Special Economic Zone Limited (MPSEZL) is developing a multi-product SEZ at Mundra. The area of MPSEZL is about 6473 hectares.

The MUPL, created to provide infrastructure facilities in the Special Economic Zone, entered into a co-developer agreement with MPSEZL. The Ministry of Commerce and Industry, Government of India has approved MUPL as a co-developer to create infrastructure facilities in MPSEZL.

The MUPL, obtained the status of distribution licensee vide Government of India notification dated 03/03/2010. This was also endorsed by the Gujarat Electricity Regulatory Commission (GERC) vide order No. GERC/Legal 2010/0609 dated 26/04/2010 allowing for distribution of electricity in Mundra SEZ area, Kutch. As such, MUPL is a deemed licensee for distribution of electricity in Mundra SEZ area.

1.3 Commission's Order on the first ARR and Tariff Petition of MUPL

The MUPL had filed its first ARR and Tariff Petition for FY 2010-11 in October 2010 for the period 28th August, 2010 to 31st March 2011 (7 months of its first financial year of operation).

The Commission, in its letter GERC/TECH/MYT 2011-12 to 2015-16/MUPL-0395 dated 5th March, 2011, has informed MUPL that since the period for which the tariff determination was asked for in its prayer was about to end, it was directed to charge its consumers considering the tariff rates prescribed in the tariff schedule of Paschim Gujarat Vij Company Limited (PGVCL) for the FY 2010-11 as ceiling limit.

1.4 Admission of the current petition and the public hearing process

The Petitioner submitted the current petition for (1) Annual Performance Review (APR) for FY 2010-11, (2) determination of Aggregate Revenue Requirement (ARR) for the control period for FY 2011-12 to FY 2015-16 and (3) Retail Supply Tariff for

FY 2011-12 on 25th January, 2011. After preliminary analysis, the Commission admitted the petition as case No. 1070 /2011 dated 12th February, 2011.

In accordance with Section 64 of the Electricity Act, 2003 the Commission directed MUPL to publish its application in an abridged form to ensure public participation. The public notice was issued in the following newspapers on 19th February 2011 inviting objections / suggestions from its stakeholders on the ARR petition filed by it.

Sr. No.	Name of the newspaper	Language	Date of publication
1.	Indian Express	English	19th February, 2011
2.	Kutch Mitra	Gujarati	19th February, 2011
3.	Divya Bhaskar	Gujarati	19th February, 2011

Interested parties / stakeholders were asked to file their objections / suggestions on its petition on or before 20th March, 2011.

The MUPL / Commission have received one objection / suggestion on the petition from the Consumer Education and Research Society, Ahmedabad.

1.5 Approach to this Order

The MUPL has submitted the current petition for Annual Performance Review for the FY 2010-11 (28th August, 2010 to March, 2011) and approval of ARR for the control period for FY 2011-12 to FY 2015-16 and determination of retail supply tariff for FY 2011-12.

The Annual Performance Review submitted by MUPL for the FY 2010-11 (28th August, 2010 to March, 2011) is stated to be based on provisional accounts for FY 2010-11 with actuals up to 31st December, 2010 and estimates from January to March, 2011. The Commission has only noted the data / information submitted by MUPL for the year 2010-11. The 'True up' for the year would be undertaken based on the Audited Annual Accounts for FY 2010-11 along with the Tariff Order for FY 2012-13 with computation of gains and losses, in accordance with the MYT Regulations, 2007.

The petition for approval of ARR for the period FY 2011-12 to FY 2015-16 and determination of Retail Supply Tariff for FY 2011-12 has been considered by the Commission as per GERC (Multi-Year Tariff) Regulations, 2011. The first draft of the GERC (Multi-Year Tariff) Regulations along with the discussion paper was circulated to all the stakeholders on 14th December, 2010. Based on the comments / suggestions received from the stakeholders, the Commission has notified these Regulations as GERC (Multi-Year Tariff) Regulations, 2011 on 22nd March, 2011.

The Regulation 1.4 (a) of the GERC (MYT) Regulations, 2011 reads as under:

"These Regulations shall be applicable for determination of Tariff in all cases covered under these Regulations from 1st April, 2011 and onwards".

1.6 Contents of the Order

This order is divided into six chapters as under:

1. The **first chapter** provides the background regarding the Petitioner, the petition and details of the public hearing process.
2. The **second chapter** outlines the summary of ARR petition of the MUPL for the control period.
3. The **third chapter** provides a brief account of public hearing process including the objections raised by stakeholders, MUPL responses and the Commission's view on the response.
4. The **fourth chapter** deals with the Annual Performance Review for FY 2010-11.
5. The **fifth chapter** deals with the Annual Revenue Requirement of MUPL for the control period FY 2011-12 to FY 2015-16 and Retail Supply Tariff for FY 2011-12 and the fuel price and power purchase adjustment.
6. The **sixth chapter** deals with the directives by the Commission.

2. Summary of the ARR petition for FY 2011-12 to FY 2015-16

2.1 Aggregate Revenue Requirement (ARR) for the control period FY 2011-12 to FY 2015-16

The MPSEZ Utilities Private Limited (MUPL) submitted the petition on 25th January, 2011 seeking approval for Aggregate Revenue Requirement for the control period FY 2011-12 to FY 2015-16 and determination of Retail Supply Tariff for the FY 2011-12.

The MUPL has projected the Aggregate Revenue Requirement of Rs. 67.06 crore for FY 2011-12, Rs. 89.71 crore for FY 2012-13, Rs. 139.59 crore for FY 2013-14, Rs. 231.72 crore for FY 2014-15 and Rs. 379.46 crore for FY 2015-16 as detailed in the Table below:

Table 2.1: Aggregate Revenue Requirement for the control period FY 2011-12 to 2015-16

(Rs. crore)

Particulars	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Power Purchase Expenses	43.47	58.64	101.41	188.41	330.01
O&M Expenses	5.96	7.50	9.13	10.77	12.00
Employee Expenses	1.70	1.87	2.30	3.06	3.37
R& M Expenses	0.57	0.60	0.64	0.74	0.83
A&G Expenses	3.69	5.03	6.19	6.97	7.80
Depreciation	4.12	5.90	7.52	8.36	8.81
Interest on Long Term Loans	8.37	10.24	11.08	9.70	8.56
Interest on Security Deposit	0.31	0.73	1.42	2.74	5.08
Interest on Working Capital	0.94	1.33	2.28	4.21	6.98
Provision for bad debts	0.24	0.29	0.35	0.41	0.50
Contingency Reserve	0.24	0.29	0.35	0.41	0.50
Income Tax	0	0	0	0	0
Revenue Expenditure	**63.65**	**84.91**	**133.54**	**225.01**	**372.43**
Return on Equity @ 14%	3.46	4.86	6.13	6.81	7.15
Less: Non-Tariff Income	0.05	0.06	0.08	0.10	0.13
ARR	**67.06**	**89.71**	**139.59**	**231.72**	**379.46**

2.2 Request of MUPL

The MUPL has requested the Commission:

1. To admit the Aggregate Revenue Requirement (ARR) application for the MYT period as submitted.
2. To condone the delay in filing this ARR petition and to accept this petition and process the same.
3. To pass suitable orders with respect to the APR for FY 2010-11 for the expenses already incurred by MUPL in serving its consumers and approve treatment of the gap in the subsequent years as proposed by MUPL.
4. To pass suitable orders with respect to the ARR for FY 2011-12 to FY 2015-16 as proposed by MUPL in the petition along with the relevant operational and financial parameters as proposed in the petition.
5. To permit the Petitioner to recover the un-recovered gap of FY 2010-11 and the likely gap for FY 2011-12 through the existing provisional tariff being proposed to be made applicable to consumers during the FY 2011-12.
6. To permit to propose suitable changes to ARR and the mechanism of meeting the revenue on further analysis, prior to the final approval by the Commission.
7. To allow any deviations from the estimates and projections as ‘Uncontrollable” and treat the same accordingly during “truing up” exercise.
8. To allow the carrying cost for any deferment in the gap of recovery.
9. To approve all the cost elements to be of “Uncontrollable” nature and also the deviation from projected cost and estimates to be passed on to the consumers.
10. To approve the ARR for wheeling of electricity.
11. To approve the Fuel Price and Power Purchase Adjustment Formula for MUPL business.
12. To allow any other relief, order or direction, which the Commission deems fit to be issued.
13. To condone any inadvertent omissions /errors / shortcomings and permit MUPL to add / change / modify / after this filing and allow it to make further submissions as may be required at a future date.
14. To pass such further order (s), as the Commission may deem fit and appropriate, keeping in view the facts and circumstances of the case.

3. Brief outline of objections raised, response from MUPL and Commission's view

3.1 Public response to the petition

In response to the public notice inviting objections / suggestions from stakeholders on the petition filed by MUPL for Annual Performance Review (APR) for FY 2010-11, approval of Annual Revenue Requirement (ARR) for the control period of FY 2011-12 to FY 2015-16 and determination of Retail Supply Tariff for the FY 2011-12, only one consumer organization viz. the Consumer Education and Research Society, Ahmedabad filed its objections / suggestions in writing.

The Consumer Education and Research Society (CERS) participated in the public hearing held on 18th April, 2011.

The Commission considered the objections / suggestions, the issues presented before the Commission and the response of MUPL on the same.

The details of the submissions made by the objector, response by the Petitioner and the views of the Commission are summarized in the following sections.

Objection 1: Power Purchase

The objector stated that:

(a) The Petitioner has stated that he will initially have two interface points from where power will be purchased i.e. one from Adani Power Limited (APL) and the other through the GETCO Transmission System. The cost of power purchased from its own Adani Power Limited during 2011-12 has been estimated at Rs.4.06/unit which is exorbitant.

(b) The cost of power generated through coal cannot be more than Rs.2.50 kWh. The Petitioner has not explained such a high cost. The Petitioner may be directed to substantiate its claim of such high power cost for FY 2011-12. This is against the revised cost of power purchase for FY 2010-11 at Rs.3.66 / unit.

Response of MUPL

The MUPL would like to state that, as a Distribution licensee, it intends to purchase power through competitive bidding route for short-term or long term purchase.

The MUPL would like to indicate that Adani Power Limited (APL) is a separate legal entity. Initially the quantum of power required was very low and they approached APL for supply of power. Later on, as the demand grew, MUPL identified another source i.e. Phillips Carbon Black Limited by inviting short term bids and also purchased a small quantity of power from Indian Energy Exchange. Based on the power available from the above sources and rates, purchases were made during FY 2010-11.

Power supply for FY 2011-12 for reasons mentioned in the petition is intended to be purchased on short-term basis. Its cost is linked with demand and supply scenario prevailing in the market. The cost of power was considered for FY 2011-12 to estimate on cost basis. It is to state that the Petitioner would endeavour to purchase power at the most competitive rates from the open market. It is noteworthy that though the estimated power purchase cost during the initial period of operation would lead to losses to the Petitioner, the Petitioner has not proposed to recover the cost fully from the customers and burden them.

Commission's view:

The MUPL has been directed to procure power following the competitive bidding route.

Objection 2: Distribution Losses

For a small distribution licensee, serving 26 industrial consumers and handling about 21 MU at 66 kV / 11 kV level, the distribution loss of 8% is not justified and should be rejected.

Response of MUPL

In an entirely new area of supply, it is very difficult to predict distribution loss accurately. MUPL has studied the case of Noida Power Company (NPC) which has a similar sales mix. It has predominately HT consumers, similar to that of MUPL. The distribution loss of NPC is 8% even after having an established demand and saturated load demand of the system. Comparatively, the loading would be very low during control period in the case of MUPL. In the initial years, the distribution loss would be higher due to energizing new power transformers which require time to reach optimum loading.

Commission's View:

The MUPL is directed to conduct Energy Audit to arrive at the accurate figures of losses in the system.

Objection 3: Tariff for Residential Consumers

It is seen from the tariff being charged that the fixed charges to residential consumers are very high compared to other distribution companies of Gujarat. The fixed charges should be approved as per those of Torrent Power Limited which is also a private Generating and Distribution Company.

The energy charges are based on two slabs while other distribution companies have three or four slabs to give relief to the consumers who consume power below 100 units.

Response of MUPL

The license area of MUPL is new and being an SEZ, residential as well as commercial consumer penetration would be almost negligible.

The Petitioner has formulated its entire tariff proposal, without any complexity of slabs. Hence, it cannot be compared with other distribution companies. Nonetheless, the Commission may take an appropriate view regarding the same.

Commission's view:

The Commission has noted the objections raised and the response of MUPL and shall take appropriate decision while determining the tariff.

Objection 4: Tariff for Commercial Consumers

The Petitioner has again made provision of two slabs for energy charges and restricted fixed charges up to single-phase supply only.

The fixed charges for single-phase supply are Rs.100/- per month, which is quite high compared to other distribution companies. Similarly the variable charges are very high compared to other distribution companies as there is no relief for the consumers using below 100 units / month and therefore, should have three slabs.

Response of MUPL

The response is same as under item (3) - Tariff for residential consumers.

Commission's View:

The Commission has considered the objection raised and the response of MUPL and shall take appropriate decision.

Objective 5: Revenue Gap

The Petitioner has shown the revenue gap of Rs.8.71 crore for FY 2010-11 and Rs.20.76 crore for FY 2011-12 making a total of Rs.29.47 crores. The Petitioner has not provided the details of employees but has projected expenses of Rs.1.70 crore for FY 2011-12. The expenses on Administrative and General expenses are also very high amounting to Rs.3.69 crore for FY 2011-12. O&M expenses are Rs.5.96 crore which are quite exorbitant and should be rejected by the Commission.

Response of MUPL

The Petitioner is operating in a new area and it is very difficult to project the operational expenses accurately. Employee expenses have been projected keeping in view the expected number of employees for licensee's operation. MUPL needs to gear up to meet the operational requirements of new consumers. They will require additional manpower for supporting the increasing distribution business with all its related activities.

In projecting administrative and general expenses, estimation of cost under each expense head has been undertaken after giving due consideration to the requirement of administration support in tune with business expenses envisaged in a year. The key components are consulting / technical fees, legal, professional and statutory fees, vehicle expenses, security related charges, corridor charges, training etc.

The license area of MUPL i.e. Mundra SEZ is a new area which is being developed for setting up of new industries by creating necessary infrastructure; as such, the industrial development is likely to take place gradually over a period of time.

The Petitioner would like to submit that the total O&M expenses projected for the license area is Rs.0.63 / unit for the FY 2011-12 which is for the initial period of operation, when the sales volume would be very low.

However, during the later years of the control period O&M expenses are projected as Rs.0.14 / unit which is quite reasonable when compared with other well-established utilities.

Commission's view:

The Commission has taken note of the objection raised and the response and shall regulate the O&M costs as per GERC (MYT) Regulations.

4. Annual Performance Review for FY 2010-11

4.1 Introduction

This chapter deals with Annual Performance Review (APR) for the FY 2010-11 (28th August, 2010 to 31st March, 2011) based on actual figures for four months and estimated figures for three months for comparison of estimated revenue and expenditure. The Commission has analysed the components of ARR for the FY 2010-11 in the following sections.

4.2 Energy sales

The Petitioner has submitted that the sales for FY 2010-11 are only for part of the year as the actual operations during the FY is for seven months w.e.f. 28th August, 2010. The projections for FY 2010-11 include four (4) months actuals and estimated sales for three (3) months up to March 2011. The revised projections submitted and proposed in the ARR and Tariff Petition for FY 2010-11 is as under:

Table 4.1: Energy sales projected for FY 2010-11

(MU)

Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
Sales	15.04	21.00

4.3 Number of consumers

The MUPL has submitted that the consumer categories served by MUPL in MPSEZ area are predominantly industrial and commercial consumers who draw power at high voltages and categorized as HTMD and the contribution from other categories would be negligible.

It is further submitted that based on the input from the interaction with prospective consumers and details of plots allotted so far in MPSEZ area, the number of consumers for FY 2010-11 have been worked out. The numbers of consumers as submitted in the petition for FY 2010-11 and revised estimate are as shown in Table 4.2.

Table 4.2: Number of Consumers for FY 2010-11

Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
Numbers of consumers	18	26

4.4 Distribution Loss

The MUPL has projected the distribution loss of 8.0% during FY 2010-11. The Petitioner has submitted that they have planned to serve the consumers in the SEZ area who are spread over. It is stated that action has been initiated for the process of establishing distribution network for the SEZ area to serve its customers. Higher distribution loss is expected due to energizing of new power transformers which will require time to reach the optimal loading. The network would be underutilized for a period of 3 to 5 years till the demand rises. The Petitioner has requested the Commission to allow distribution loss of 8%.

4.5 Energy Balance

The Petitioner has projected the energy balance for FY 2010-11 based on the energy sales grossed up, factoring the transmission loss of 4.25% of GETCO and distribution of loss of MUPL at 8.0% to arrive at the quantum of power purchase required to meet the demand. The energy balance for the energy sales projected and revised estimates are given below:

Table 4.3: Energy Balance projected for FY 2010-11

(MU)

Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
Energy Sales	15.04	21.00
Distribution loss (%)	8.00%	8.00%
Distribution loss	1.31	1.83
Energy requirement	16.35	22.83
Transmission loss (%)	4.25%	4.25%
Transmission loss	0.73	1.01
Total energy required to be purchased	17.07	23.84

4.6 Capital expenditure plan

The MUPL has submitted that it has planned to establish the distribution network along with the built-in redundancies for ensuring uninterrupted quality power to the consumers in the Mundra SEZ area.

It is stated that MUPL has planned to develop distribution network up to the premises of consumers. The network is proposed to be developed with underground cables up to 33kV and overhead lines beyond 33kV capacity.

The capital expenditure proposed for FY 2010-11 and revised estimates are given in Table below:

Table 4.4: Capital Expenditure projected for FY 2010-11

(Rs. crore)

Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
Capital expenditure	62.85	66.34

4.7 Power Purchase Cost

The MUPL has submitted that it proposes to draw power initially at two different interface points to serve consumers located in different areas of SEZ. One interface point will be directly from 220/66/11kV MRS (Main Receiving Station) of Adani Power Limited (APL) bus via dedicated transmission line of APL and the other interface point is 66/11kV SS connected to GETCO network near 66/11kV SS located in Eastern part of the SEZ area. Later they propose to draw power from single point of supply from APL's 220/66/11kV MRS.

It is submitted that as a distribution licensee MUPL would like to procure power by following the competitive bidding process as laid down in the National Tariff Policy. Since its present scale of operation is small, the mode of procurement based on competitive bidding is not feasible as no generator is likely to participate in the competitive bidding for such a small volume. MUPL has stated that it has approached Adani Power Limited and other sources for meeting its initial requirement. The power purchase costs include the transmission charges to be paid to GETCO. The power purchase cost as submitted by MUPL in the petition for FY 2010-11 and revised estimate submitted are given in the Table below:

Table 4.5: Power Purchase Costs for FY 2010-11

Particulars	As submitted for FY 2010-11 (28th August, 2010 to 31st March, 2011)	Revised estimate for FY 2010-11 (28th August, 2010 to 31st March, 2011)
Total quantity of energy purchased (MU)	17.07	23.84
Total cost (Rs. Crore)	7.00	8.73
Cost per unit (Rs/kWh)	4.10	3.66

4.8 Revenue Expenditure

The MUPL has submitted that being a new area of operation, it is very difficult to project the operational expenses very accurately. It is submitted that O&M expenses are projected based on estimates. Similarly, the depreciation, interest expenses, normative interest on working capital and return on equity are projected based on the proposed capital expenditure in the business, the capitalization schedule and the applicable norm as per GERC Regulations, 2005. The return on equity is claimed at a rate of 14%. The income tax on regulated business has not been considered.

4.9 Summary of the ARR and Revenue gap

The ARR for the FY 2010-11 as submitted by MUPL in the petition for FY 2010-11 and revised estimates are given in the Table below:

Table 4.6: Summary of ARR and Revenue gap estimated for FY 2010-11

(Rs. crore)

Sr. No.	Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
1	Power Purchase Expenses	7.00	8.73
2	O & M Expenses	3.89	2.94
2.1	*Employees expenses*	*0.62*	*0.75*
2.2	*R & M expenses*	*0.34*	*0.34*
2.3	*A & G expenses*	*2.92*	*1.84*
3	Depreciation	1.80	1.87
4	Interest on long term loans	3.27	3.45
5	Interest on security deposit	0.02	0.05
6	Interest on working capital	0.33	0.42
7	Provision for bad debts	0.20	0.20
8	Contingency reserve	0.20	0.20
9	Income tax	0.00	0.00
10	**Revenue expenditure**	**16.71**	**17.86**
11	Return on equity @ 14%	1.32	1.38
12	Less : Non-tariff income	0.01	0.02

Sr. No.	Particulars	As submitted for FY 2010-11 (August 28th 2010 to March 31st, 2011)	Revised estimate for FY 2010-11 (August 28th 2010 to March 31st, 2011)
13	**Annual Revenue Requirement**	**18.02**	**19.22**
14	Revenue from proposed tariffs	7.21	10.51
15	**Revenue gap**	**(10.81)**	**(8.71)**

Commission's Comments

The expenses under various components of APR and the revenue as furnished by MUPL under revenue estimate for FY 2010-11 are noted.

5. Determination of Aggregate Revenue Requirement (ARR) for FY 2011-12 to FY 2015-16 and Retail Supply Tariff for FY 2011-12

5.1 Energy Sales

A realistic estimation of category-wise energy sales for the control period of FY 2011-12 to FY 2015-16 is essential and an important requirement to arrive at the quantum of energy to be purchased and the likely revenue from sale of energy. The category wise energy sales projected by MUPL in its MYT petition for the control period of FY 2011-12 to 2015-16 are discussed in this section.

5.2 Overall Approach to Energy Sales

The MUPL has submitted the methodology followed by it in order to arrive at the sales projection for the control period as under:

- Mundra SEZ is being developed for setting up new industries by creating necessary infrastructure and the industrial development is likely to take place gradually over a period of time. Since it is a new area, it is difficult to carry out projections for number of consumers, the demand, sales projections and power requirement accurately for this area.
- The demand for electricity has been forecasted based on estimates of the quantum and location of load and requirement within the SEZ. SEZ is likely to have mainly industrial and commercial categories of consumers with a negligible contribution from other consumer categories.
- MUPL has considered the requirements given by industrial and commercial customers who are either in the process of setting up their manufacturing facilities or have already set up the same in the area and the requirements are based on their figures.
- The projections for the control period of FY 2011-12 to FY 2015-16 are based on the estimated demand for the existing consumers and projection for future consumers along with existing consumers.

- Based on available feedback the load factor of these consumers may vary between 30% to 40% initially.
- A few industries will require construction power, whose load factor is expected to be around 10 to 20%.
- As per the Regulations of the Commission, energy sales are uncontrollable and any deviation therein will have to be addressed appropriately.

5.3 Consumer Forecast

The MUPL has submitted that for the purpose of projecting the number of installations for the control period, they have considered prospective consumers, market scenario, upcoming projects and expected development plans in the supply area.

The MUPL stated that they have conducted survey of the consumers to track their future plans which will have the impact on the growth of number of consumers. It is further stated that the projections have been based on the end user survey for all the consumers.

The projected number of installations by MUPL is given in the Table below:

Table 5.1: Number of Installations – Forecast

Particulars / Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Residential	0	0	0	0	0
Commercial Non Demand	0	0	0	0	0
Commercial Demand	14	14	13	13	14
Industrial Non Demand	0	0	0	0	0
Industrial Demand	1	1	1	1	1
HTMD-I (Industrial / Commercial)	27	37	44	50	60
HTMD-II (Temp)	2	2	3	3	0
Street light	2	2	2	2	2
LT Temporary	3	2	2	1	0
Total	**49**	**58**	**65**	**70**	**77**

Based on the above assumptions, the MUPL has projected the demand for power and energy sales for the control period as given in the Table below:

Table 5.2: Projected Demand for Power (MVA)

Particulars/Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Gross demand (MVA)	35	53	92	177	266

Table 5.3: Energy Sales (MU) projected by MUPL for FY 2011-12 to 2015-16

Particulars/Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Energy sales (MU)	94.23	129.31	240.24	466.73	853.39

Commission's Analysis

The Commission has examined the forecast of number of installations, demand and energy sales projected by MUPL for the control period. It is observed from what is stated above by MUPL, that the forecast is based on the estimation of number of installations (consumers), likely demand and energy sales.

The MPSEZ is in development stage, some consumers have established industries and some are in the process of doing so. It is submitted by MUPL that the projection of number of installations, the demand and the energy sales for the control period are based on interaction with the prospective developers.

The Commission, therefore, approves the number of installations, the demand and the energy sales projected for the period FY 2011-12 to FY 2015-16 and any variation will be considered during 'truing up'.

The energy sales for the control period of FY 2011-12 to FY 2015-16 are approved as given in the Table below:

Table 5.4: Energy Sales approved by the Commission for FY 2011-12 to FY 2015-16

Particulars/Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Energy sales (MU)	94.23	129.31	240.24	466.73	853.39

5.4 Distribution Loss

The MUPL has projected the distribution loss of 8.0% during 2011-12 with a gradual reduction of 0.25% per annum during the control period as under:

Table 5.5: Distribution loss projected by MUPL for the control period FY 2011-12 to FY 2015-16

Particulars / Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Distribution loss (%)	8.00%	7.75%	7.50%	7.25%	7.00%

The MUPL has stated that it has planned to serve the customers in the SEZ area who are spread over different locations. It has initiated the process of establishing distribution network to serve the customers. The losses will be higher during the initial years as the network would be underutilized.

Commission's Analysis

The network is still being developed to serve the consumers who will set up units in different parts of the SEZ. The network may be underutilized in the initial years. The power transformers etc. would be under-loaded till the load develops. The Commission approves the distribution loss projected for the period FY 2011-12 to FY 2015-16 subject to conducting energy audit and arriving at actual loss. A directive to this effect is being issued separately.

The Commission approves the distribution loss levels as below for FY 2011-12 to FY 2015-16.

Table 5.6: Distribution Loss levels approved for FY 2011-12 to 2015-16

Particulars / Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Distribution loss (%)	8.00%	7.75%	7.50%	7.25%	7.00%

The loss levels will however be reviewed based on the results of Energy Audit conducted by MUPL.

5.5 Energy Requirement

The energy requirement is computed considering the distribution loss and transmission loss in the licensed area.

The energy requirement for the control period as projected by MUPL is given in Table below:

Table 5.7: Energy Balance projected by MUPL for FY 2011-12 to FY 2015-16

(MU)

Particulars / Year	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Energy sales	94.23	129.31	240.24	466.73	853..39
Distribution loss (%)	8.00%	7.75%	7.50%	7.25%	7.00%
Distribution loss	8.19	10.86	19.48	36.48	64.23
Energy requirement after distribution loss	102.42	140.18	259.72	503.21	917.63
Transmission loss (%)	4.25%	4.25%	4.25%	4.25%	4.25%
Transmission Loss	4.55	6.22	11.53	22.34	40.73
Total Energy requirement after T & D Loss	**106.97**	**146.4**	**271.25**	**525.55**	**958.36**

Commission's Analysis

The MUPL has submitted that it would be drawing power initially at two interface points. One interface point will be directly from 220 kV / 66 kV / 11 kV Main Receiving Station (MRS) connected to Adani Power Ltd. (APL) bus via dedicated transmission line of APL. Another interface point is 66 / 11kV substation connected to GETCO network near 66 / 11 kV substation located in Eastern Part of Mundra SEZ area, wherein MUPL will source power through Open Access. This arrangement will be in place till the time a connecting 66 kV line is laid which will be connected from its 220 / 66 / 11 kV MRS substation end to 66 / 11 kV substation in Eastern part. Later on it will be fed from a single point i.e. from 220 / 66 / 11 kV MRS substation.

The loss level of 4.2% is considered for the entire control period. The Commission approves the energy balance as below:

Table 5.8: Energy Balance approved for FY 2011-12 to 2015-16

(MU)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Energy sales	94.23	129.31	240.24	466.73	853.39
2	Distribution loss (%)	8.00	7.75	7.50	7.25	7.00
3	Distribution loss (MU)	8.19	10.86	19.48	36.48	64.23
4	Energy requirement (1+3)	102.42	140.18	259.72	503.21	917.63
5	Transmission loss (%)	4.2	4.2	4.2	4.2	4.2
6	Transmission loss (MU)	4.49	6.14	11.39	22.06	40.23
7	**Energy required to be purchased**	**106.90**	**146.32**	**271.11**	**525.27**	**957.86**

5.6 Unscheduled Interchange

The MUPL has submitted that it would be operating in an area where the development is yet to take place. It would be difficult for MUPL to ensure that there are no UI implications impacting power availability to its consumers. It has requested the Commission to allow to include gain / loss on account of UI mechanism as a part of the power purchase cost.

Commission Analysis

The commission does not approve UI as a source of power purchase. Any drawal under UI will be considered at the time of 'Truing up' for FY 2011-12 based on merits.

5.7 Capital Expenditure Plan

MUPL has proposed capital expenditure of Rs 176.31 crore during the control period as under:

Year	Capital expenditure (Rs. crore)
2010-11	66.34
2011-12	33.36
2012-13	33.45
2013-14	26.63
2014-15	5.87
2015-16	10.67
Total	**176.31**

The MUPL has explained in detail the proposed year-wise transmission and distribution network in its area of operation to meet the demand of consumers coming up in different areas of Mundra SEZ during the control period year wise.

The assumptions made by MUPL for calculation of the capital expenditure are indicated below:

Assumption for CAPEX calculation:

- 220 KV Network would be overhead and 66 KV by U/G & O/H.
- 33 kV, 11kV and LV Network would be laid underground.
- The distribution network will be established as a 'Ready to Serve' Network i.e. the Network is proposed to be established up to the consumer premises.

- Cost of materials is considered as per existing rates (i.e. without any taxes and duties); no escalation factor had been considered.
- The CAPEX is proposed to be funded with a debt equity ratio of 70:30.

Based on the above assumptions, MUPL has given the capital expenditure plan for the control period as below:

Table 5.9: CAPEX Plan projected by MUPL for FY 2011-12 to FY 2015-16

(Rs. lakh)

	Description	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total cost
A	**EHV (220kV & 66kV**							
	EHV Transmission line	1103	496	225	367	-	-	2191
	EHV Transmission cable	255	1878	-	-	-	-	2133
	EHV substation	2547	169	1397	913	-	-	5027
	Land cost	638		17	-	-	-	655
	Civil cost	1046	190	289	337	-	-	1862
	Total	**5589**	**2734**	**1929**	**1618**	**0**	**0**	**11869**
B	**HT (33kV & 11kV) & Network**							
	33 kV HT cable network	-	83	542	209	380	759	1973
	11 kV HT cable network	496	248	130	-	110	220	1203
	33/11 kV substation	-	17	291	501		-	810
	Land cost	-	-	-	-	-	-	-
	Civil cost	-	-	66	-	-	-	66
	Total	**496**	**348**	**1030**	**710**	**490**	**979**	**4052**
C	**Others**							
	Automation & SCADA	67	22	140	136	-	-	364
	Testing and Measuring equipment	46	169	76	27	30	20	368
	Meters & AMR	19	6	22	24	11	11	93
	IT	1	1	1	2	2	2	8
	Miscellaneous	64	55	55	55	55	55	339
	Building & other civil work	352	-	92	92	-		536
	Total	**549**	**254**	**385**	**336**	**97**	**88**	**1709**
	Grand Total	**6634**	**3336**	**3345**	**2663**	**587**	**1067**	**17631**

The MUPL has not indicated how much of CAPEX it proposed to be capitalized during each year of the control period.

Commission's Analysis

The MUPL has to provide the infrastructure in the MPSEZ area to meet the demand of the consumers coming up in the area over the control period. The network has to be developed in a phased manner, as briefly explained by MUPL to meet the demand as and when it comes up. They have outlined the nature of network they propose to extend.

Since MPSEZ is in the process of development, the Commission accords in-principle approval for the capital expenditure proposed for FY 2011-12 to 2015-16. MUPL is directed to furnish “firmed up” CAPEX plan for the control period along with the tariff petition for FY 2013-14 with the details of installations coming up in the entire area and the proposed network for approval of the Commission.

The MUPL has not furnished the capitalization of capital expenditure proposed each year. But it is observed from the calculation of depreciation (Form-D2) that it proposes to capitalize the entire CAPEX during the same year itself. Since they are operating in a limited area and have to complete the works on a time schedule to meet the demand of various consumers, it may have to complete the work during the same year.

The commission approves capitalization of the entire CAPEX during the year for purpose of calculation of depreciation, Interest on loans, returns on equity etc.

5.8 Revenue Requirement for FY 2011-12 to FY 2015-16

The MUPL has projected the various components of ARR as under:

- Power purchase cost
- Operation and Maintenance expenses
- Depreciation
- Interest on loan capital
- Interest on security deposits
- Interest on working capital
- Return on equity
- Income tax

Expenses projected by MUPL under each of the above components and Commission’s decisions are discussed below:

5.8.1 Power Purchase Cost

The MUPL had projected the power purchase cost for the control period as under:

Year	Power purchase cost (Rs. Crore)
2011-12	43.47
2012-13	58.64
2013-14	101.41
2014-15	188.41
2015-16	330.01

The MUPL has submitted that it has to draw power initially at two interface points, one is 220/66/11kV Main Receiving Station (MRS) connected to APL bus and the second interface point connected to 66kV system of GETCO. Later the entire power will be drawn from the 220/66/11kV MRS.

The MUPL has stated that as a distribution licensee it has to undertake power procurement on a long-term basis based on competitive bidding. However, at the present mode of operation, it would not be feasible, for the small volume load at which MUPL is operating, to go in for long-term power purchase based on competitive bidding and no generator may bid for such a small quantum of power.

The MUPL has further stated that in view of relatively low quantum of power requirement, it has approached Adani Power Limited (APL) for meeting the initial requirement and MUPL also initiated efforts to identify an alternate source.

The MUPL has requested the Commission to allow purchase of power from alternative sources under short-term arrangement by inviting bids.

The power purchase cost inclusive of transmission charges projected by MUPL is given in Table below:

Table 5.10: Power purchase cost projected by MUPL for FY 2011-12 to FY 2015-16

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Total Quantity (MU)	106.97	146.4	271.25	525.55	958.36
2	Total Cost (Rs. crore)	43.47	58.64	101.41	188.41	330.01
3	**Cost Per Unit (Rs/kWh)***	**4.06**	**4.01**	**3.74**	**3.58**	**3.44**

* Inclusive of transmission charges.

Commission's Analysis

In normal course, the distribution licensee shall procure power on 'long-term basis' based on competitive bidding process as per the guidelines issued by Ministry of Power, Government of India. Since MUPL has recently begun its operations and the requires small quantum of power initially, it cannot go for long-term competitive bidding as no generator may respond for such a small quantum of power. Hence, it has proposed to go for short-term power supply arrangement. Initially it proposes to purchase power from APL and other sources as given in Table 5.10 above.

As per data available from Market Monitoring Cell of CERC, the market prices for power during FY 2010-11 were as under:

Price of power	**Transaction/ with trader**
Period of trade	Average price (Rs/ kWh)
Round the clock (RTC)	4.76
Peak	5.23
Off peak	4.69

The prices for FY 2011-12 may be lower in view of additional generating capacity being added in the country.

The price of Rs.4.06 indicated by MUPL for FY 2011-12 including transmission charges appears to be reasonable.

The Commission computed the cost of power to be purchased for the control period as below:

Table 5.11: Power Purchase Cost computed for FY 2011-12 to FY 2015-16

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Total energy to be purchased (MU)	106.90	146.32	271.11	525.27	957.86
2	Cost per unit (Rs./unit)	4.06	4.01	3.74	3.58	3.44
3	Total cost of power purchase (Rs. crore)	43.40	58.67	101.40	189.48	329.50

The Commission approves the power purchase cost for the control period as given in the Table above.

A directive is being issued separately for inviting competitive bids for procurement of power and to obtain the approval of the Commission.

5.8.2 Operation & Maintenance Expenses

The O & M expenses consist of employee expenses, A&G expenses and R&M expenses.

The MUPL has submitted that it has considered the projections for the control period taking into account the growth in the business, inflation / increase in expenses etc. It is submitted that the employee expenses have been projected keeping in view the expected number of employees required for operations.

In regard to R & M expenses, the network being mostly underground network, the repair costs would be high. The A&G expense cover consultancy/ technical fees, legal, professional and statutory fees, vehicle expenses, security expenses, training etc.

The O & M costs projected by MUPL for the control period are given below:

Table 5.12: O&M expenses projected by MUPL for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Employee Cost	1.70	1.87	2.3	3.06	3.37
2	Repairs & maintenance Cost	0.57	0.6	0.64	0.74	0.83
3	Administration & General cost	3.69	5.03	6.19	6.97	7.8
4	**Total O &M Expenses**	**5.96**	**7.5**	**9.13**	**10.77**	**12.00**

Commission's Analysis

The Commission has examined the O&M expenses projected by MUPL for the FY 2011-12 to FY 2015-16.

The MUPL has incurred an expenditure of Rs.2.94 crore under O&M for 7 months period during FY 2010-11 as furnished in APR for FY 2010-11.

The expenditure for 12 months works out to Rs.5.04 crore. As per GERC MYT Regulations, 2011, the O&M expenses are escalated at 4.0% for FY 2011-12 and at 5.72% per annum thereon for the control period as below:

Table 5.13: O & M Expenses approved for FY 2011-12 to 2015-16

Sr. No.	Year	O&M Expenses (Rs. crore)
1	2010-11	5.04
2	2011-12	5.24
3	2012-13	5.54
4	2913-14	5.86
5	2014-15	6.19
6	2015-16	6.55

The Commission approves the O&M expenses for the control period as given in table above.

5.8.3 Depreciation

MUPL has projected the depreciation for the control period as under:

Table 5.14: Depreciation projected by MUPL for FY 2011-12 to 2015-16

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation	4.12	5.90	7.52	8.36	8.81

MUPL has given the computation of depreciation for the control period in Form D-2 of the petition. It is submitted by MUPL that it has adopted the depreciation rates specified in CERC/GERC Regulations.

Commission's Analysis

The Commission has examined the depreciation charges as computed by MUPL for FY 2011-12 to FY 2015-16. In the computation of depreciation MUPL has considered the entire capital expenditure during the year as capitalized and the depreciation on the capital addition during the year as given in table above.

The depreciation computed by MUPL has been verified. Appropriate depreciation rate as per GERC Regulations have been applied.

The depreciation approved is given below:

Table 5.15: Depreciation approved for the control period FY 2011-12 to 2015-16

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Depreciation	4.12	5.90	7.52	8.36	8.85

5.8.4 Interest and Finance Expenses

The MUPL has submitted that the entire capital expenditure incurred has been funded through its own resources i.e. through equity infusion and through consumer contributions. MUPL has considered the debt, equity in 70:30 ratio.

The MUPL has claimed interest at 12.75%, which is said to be equivalent to SBI PLR as on 1st August, 2010 and additional of 0.5% for the risk margin with repayment of 28 quarterly repayments after a moratorium period of one year.

The MUPL has projected the interest on loans and security deposits during the control period FY 2011-12 to FY 2015-16 as given in Table below:

Table 5.16: Interest on loans projected by MUPL for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening loans	46.44	63.15	76.60	81.93	70.06
2	Loan for additional capital (70:30 debt equity)	23.35	23.41	18.64	4.11	7.47
3	Loan repayment	6.63	9.97	13.31	15.98	16.56
4	Cumulative loan / closing loan	63.15	76.60	81.93	70.06	60.96
5	**Interest cost at 12.75%**	**8.37**	**10.24**	**11.08**	**9.69**	**8.56**

*Interest includes the interest on Security Deposits.

Commission's Analysis

It is stated by MUPL that it is funding the entire capital expenditure from its own resources and hence claimed interest on normative loan with a debt-equity ratio of 70:30. The normative loan has been computed at 70% of the opening balance of Gross Fixed Assets (Net of consumer contributions).

The MUPL claimed interest at an interest rate of 12.75% and additional 0.5% for the risk margin.

The rate of interest of 10.5% is considered reasonable based on the current rates of interest particularly on normative loan and accordingly interest is computed. The current rate of interest is 10.50% to 11.00%. MUPL shall be able to raise loans at 10.5% because of its standing. The other utilities have claimed in Gujarat interest at 10.5% and Commission approved accordingly. The repayment is regulated as per

Regulation 39.3 of GERC MYT Regulations, 2011, the repayment shall be equal to depreciation allowed during the year. The interest as computed by the Commission as given in Table below:

Table 5.17: Interest computed by the Commission for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening loans	46.44	65.67	83.18	94.30	90.05
2	Loan additions (70:30 debt equity)	23.35	23.41	18.64	4.11	7.47
3	Repayment (depreciation allowed)	4.12	5.90	7.523	8.36	8.85
4	Closing balance	65.67	83.18	94.30	90.05	88.67
5	Average loans	56.05	74.42	88.74	92.18	89.36
6	Interest at 10.50%	5.89	7.81	9.32	9.68	9.38

The Commission approves the interest on normative loans for the control period FY 2011-12 to FY 2015-16 as given below:

Year	Interest (Rs. crore)
2011-12	5.89
2012-13	7.81
2013-14	9.32
2014-15	9.68
2015-16	9.38

5.8.5 Interest on Security Deposit

The MUPL has projected the interest on security deposit to be paid to the consumers for the control period FY 2011-12 to FY 2015-16 as detailed below:

Table 5.18: Interest on Security Deposit claimed by MUPL for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening balance	2.25	8.04	16.27	31.20	60.09
2	Addition during the year	5.79	8.23	14.93	28.90	49.01
3	Repayment during the year	-	-	-	-	-
4	Closing balance	8.04	16.27	31.20	60.09	109.11
5	Average deposit	5.15	12.16	23.74	45.65	84.60
6	**Interest at 6%**	**0.31**	**0.73**	**1.42**	**2.74**	**5.08**

Commission's Analysis

The Commission has examined the interest to be paid on security deposit to the consumers. As per Regulation 39.9 of GERC MYT Regulations, 2011, the interest on Security deposit held shall be paid at the Bank Rate as on the 1st April of the financial year in which the petition is filed. MUPL has claimed interest at 6%, which is in order.

The interest on security deposit computed by the Commission is given below:

Table 5.19: Interest on Security Deposit computed by the Commission for FY 2011-12 to FY 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening balance	2.25	8.04	16.27	31.20	60.09
2	Addition during the year	5.79	8.23	14.93	28.90	49.01
3	Repayment during the year	-	-	-	-	-
4	Closing balance	8.04	16.27	31.20	60.10	109.10
5	Average deposit	5.15	12.16	23.74	45.65	84.60
6	Interest @6%	0.31	0.73	1.42	2.74	5.08

The Commission approves the interest on Security deposit for the control period FY 2011-12 to FY 2015-16 as given below:

Year	Interest on security Deposit (Rs. crore)
2011-12	0.31
2012-13	0,73
2013-14	1.42
2014-15	2.74
2015-16	5.08

5.8.6 Interest on Working Capital

The MUPL has claimed the interest on working capital on normative basis as per GERC Regulations, 2005. The norm for working capital was as under:

(a) One month O&M expenses.

(b) Maintenance spares @ 1% of GFA and

(c) Receivables equal to two months.

The MUPL has claimed the interest on working capital at the rate of 10.25% per annum as detailed below:

Table 5.20: Interest on Working Capital claimed by MUPL FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	O&M expenses	0.50	0.62	0.76	0.90	1.00
2	Spares as 1% of GFA	1.00	1.33	1.60	1.66	1.76
3	Receivables	7.72	10.97	19.90	38.53	65.35
4	Working Capital	9.21	12.93	22.26	41.08	68.12
5	Interest on working capital	0.94	1.33	2.28	4.21	6.98

Commission's Analysis

The interest on working capital has to be regulated in accordance with Regulation 41 of MYT Regulations, 2011 as under:

- Operation and maintenance expenses for one month.
- Maintenance spares at one (1) percent of the historical cost escalation at 6% from the date of commercial operation.
- Receivables for one (1) month of the expected revenue from sale of electricity minus amount held as security deposit in cash.

The working capital and interest thereon computed by the Commission for the control period FY 2011-12 to FY 2015-16 at the interest rate of 11.75% being SBI Advance Rate of Interest as on 1st April, 2010 is given below:

Table 5.21: Working Capital and Interest on Working Capital computed for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	O&M expenses (one month)	0.44	0.46	0.49	0.52	0.55
2	Spares as 1% of GFA	0.66	1.0	1.33	1.60	1.66
3	Receivables for one month	3.86	5.49	9.95	19.26	32.68
4	Total working capital	4.96	6.95	11.77	21.38	34.89
5	Less Security deposit	5.15	12.15	23.73	45.65	84.60
6	Interest on working capital @11.75%	-	-	-	-	-

No interest on working capital is considered since security deposit from consumers is more than working capital required.

5.8.7 Contribution to Contingency Reserve

The MUPL has claimed an amount of Rs.1.79 crore towards contribution to contingency reserve during the control period as below:

Year	Contingency reserve (Rs. crore)
2011-12	0.24
2012-13	0.29
2013-14	0.35
2014-15	0.41
2015-16	0.50

Commission's Analysis

As per Regulation 85.6.1 of GERC (MYT) Regulations, 2011, the Commission may allow a sum not more than 0.5% of original cost of fixed assets annually towards contribution to contingency reserve in the calculation of ARR.

Since the licensee is in the process of developing its distribution network which will go on during the control period, the contribution towards contingency reserve provided by MUPL is lower than 0.5% of gross fixed assets at the beginning of the year for each year of the control period. The contribution to contingency reserve is approved as projected by MUPL as given below:

Year	Contingency reserve (Rs. crore)
2011-12	0.24
2012-13	0.29
2013-14	0.35
2014-15	0.41
2015-16	0.50

5.8.8 Provisions for bad debts

The MUPL has claimed for provision of bad debts during the control period as below:

Year	Amount (Rs. crore)
2011-12	0.24
2012-13	0.29
2013-14	0.35
2014-15	0.41
2015-16	0.50

Commission's Analysis

As per Regulation 98.8.1 GERC (MYT) Regulations, 2011, the Commission may allow bad debts written off as a pass through in the aggregate revenue requirement, subject to prudent check.

The MUPL is a new distribution licensee and is in the process of connecting consumers, mostly committed industrial consumers. As such, so far there has not been any written off bad debts. No provision for bad debts is therefore been approved by the Commission at this stage. MUPL may approach the Commission on writing off bad debts for FY 2011-12, if any, during FY 2012-13 for approval.

5.8.9 Return on Equity

The MUPL has projected the return on equity for the control period FY 2011-12 to FY 2015-16 as given in Table below:

Table 5.22: Return on equity claimed by MUPL for FY 2011-12 to FY 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening Equity and Reserves	19.72	29.72	39.76	47.75	49.51
2	Additions to equity towards capital investments	10.01	10.03	7.99	1.76	3.2
3	Closing balance of Equity and Reserves	29.72	39.76	47.75	49.51	52.71
4	ROE @ 14% on the average balance	3.46	4.86	6.13	6.81	7.15

The equity for the control period has been arrived at based on the additions to capital during the year and the equity contribution towards these additions. Addition to equity in a year has been taken at 30% of additional capitalisation.

The MUPL has claimed the return on equity at 14%, but requested the Commission to allow the same at 16%.

Commission's Analysis

The Commission has examined the claim of MUPL for return on equity. As per Regulation 38 of GERC MYT Regulations, 2011 which are effective from 1st April 2011, the return on equity is to be computed on the paid up equity capital determined in accordance with Regulation 34 and shall be allowed at 14%. Return on equity shall be allowed on the amount of permitted equity capital for the assets put to use at the commencement of financial year and on 50% of equity capital portion of the allowable capital for the investment put to use during the financial year.

The return on equity for MUPL is regulated in accordance with the Regulation 38 of GERC Regulations, 2011 for FY 2011-12 as detailed below:

Table 5.23: Return on Equity approved for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Opening GFA	66.34	-	-	-	-
2	Opening equity (30% of GFA)	19.90	29.91	39.94	47.93	49.69
3	Additions to equity towards capital investment	10.01	10.03	7.99	1.76	3.20
4	Closing equity	29.91	39.94	47.93	49.69	52.89
5	Average equity	24.90	34.93	43.93	48.81	51.29
6	Return on equity @14%	3.48	4.89	6.15	6.83	7.18

The Commission approves the return on equity for the control period FY 2011-12 to FY 2015-16 as given in the Table above.

5.8.10 Income Tax

It is submitted that income tax would not be applicable to MUPL as per the SEZ Act and rules. Hence, MUPL has not claimed any tax on income from its business.

5.8.11 Non-Tariff income

The MUPL has projected the non-tariff income for the control period as given below:

Table 5.24: Non-Tariff income projected by MUPL for FY 2011-12 to FY 2015-16

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Non-Tariff income	0.05	0.06	0.08	0.10	0.13

Commission's Analysis

Since it is only the second year of operation, there is no previous data to assess the non-tariff income.

Hence, the non-tariff income as projected for FY 2011-12 to FY 2015-16 is approved by the Commission.

5.9 Aggregate Revenue Requirement (ARR)

Based on the earlier discussions, the projected ARR for the control period FY 2011-12 to FY 2015-16 is summarized below:

Table 5.25: Summary of ARR projected by MUPL for FY 2011-12 to 2015-16

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Power Purchase Expenses	43.47	58.64	101.41	188.41	330.01
2	**O&M Expenses**	**5.96**	**7.50**	**9.13**	**10.77**	**12.00**
	Employee Expenses	*1.7*	*1.87*	*2.3*	*3.06*	*3.37*
	R& M Expenses	*0.57*	*0.6*	*0.64*	*0.74*	*0.83*
	A&G Expenses	*3.69*	*5.03*	*6.19*	*6.97*	*7.8*
3	Depreciation	4.12	5.9	7.52	8.36	8.81
4	Interest on Long Term Loans	8.37	10.24	11.08	9.7	8.56
5	Interest on Security Deposit	0.31	0.73	1.42	2.74	5.08
6	Interest on Working Capital	0.94	1.33	2.28	4.21	6.98
7	Provision for bad debts	0.24	0.29	0.35	0.41	0.5
8	Contingency Reserve	0.24	0.29	0.35	0.41	0.5
9	Income Tax	0	0	0	0	0
10	**Revenue Expenditure**	**63.65**	**84.91**	**133.54**	**225.01**	**372.43**
11	Return on Equity @ 14%	3.46	4.86	6.13	6.81	7.15
12	Less: Non-Tariff Income	0.05	0.06	0.08	0.1	0.13
13	**Annual Revenue Requirement**	**67.06**	**89.71**	**139.59**	**231.72**	**379.46**

Commission's Analysis

As discussed in the above paragraphs, the Commission approves the Annual Requirement for the control period FY 2011-12 to FY 2015-16 as given in Table 5.26. The Commission, however, has not considered the claim for provision for bad debts as per GERC (MYT) Regulations, 2011.

Table 5.26: Annual Revenue Requirement approved by the Commission for FY 2011-12 to FY 2015-16

(Rs. crore)

Sr. No.	Particulars	Approved for				
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Power Purchase Expenses	43.40	58.67	101.40	189.48	329.50
2	O&M Expenses	5.24	5.54	5.86	6.19	6.55
	Employee Expenses					
	R& M Expenses					
	A&G Expenses					

Sr. No.	Particulars	Approved for				
		FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
3	Depreciation	4.12	5.90	7.52	8.36	8.85
4	Interest on Long Term Loans	5.89	7.81	9.32	9.68	9.38
5	Interest on Security Deposit	0.31	0.73	1.42	2.74	5.08
6	Interest on Working Capital	-	-	-	-	-
7	Provision for bad debts	-	-	-	-	-
8	Contingency Reserve	0.24	0.29	0.35	0.41	0.50
9	Income Tax	-	-	-	-	-
10	**Revenue Expenditure**	**59.20**	**78.94**	**125.87**	**216.86**	**359.86**
11	Return on Equity @ 14%	3.48	4.89	6.15	6.83	7.18
12	Less: Non-Tariff Income	0.05	0.06	0.08	0.10	0.13
13	**ARR**	**62.63**	**83.77**	**131.94**	**223.59**	**366.91**

5.10 Revenue from existing Tariff and Revenue gap and Tariff determination for FY 2011-12

The MUPL has projected the revenue from existing provisional tariff at Rs. 46.30 crore leaving a revenue gap of Rs 20.76 crore as given below:

Categories	No. of consumers	Energy Sales (MU)	Total fixed charge (Rs. crore)	Energy+ToU+PF adjustment charge (Rs. crore)	Total Charge (Rs. crore)
Residential	0				
Commercial Non-Demand	0				
Commercial Demand based	14	1.99	0.46	0.6	1.06
Industrial Non-Demand	0				
Industrial Dem Based	1	0	0.04	0.07	0.11
HTMD - 1 (Industrial/Commercial)	27	91	17.05	27.32	44.37
HTMD - II (Temporary)	2	0.49	0.25	0.25	0.5
Temporary	3	0.35	0.08	0.14	0.22
Street lighting	2	0		0.02	0.02
Total	**49.00**	**93.83**	**17.88**	**28.40**	**46.30**

Revenue gap

Particulars	FY 2011-12
ARR	67.06
Revenue at existing tariff	46.30
Revenue gap	(20.76)

The details of sales and sales revenue for FY 2011-12 are given in Annexure 5.1 (Format-D.4) of the Petition.

The MUPL has submitted that the revenue gap of Rs 20.76 crore along with the revenue gap of Rs.8.71 crore for FY 2011-12 totalling Rs.29.47 crore be deferred to be recovered during the ensuing years to avoid massive tariff hike to its existing consumers.

The MUPL has also requested that it should be allowed carrying over costs on the same, at the SBI PLR rate prevailing during the relevant years.

The MUPL has further requested to treat the revenue gap as 'Regulatory Asset' and permit its recovery over a period as may be deemed fit by the Commission.

Commission Analysis and Decision

Based on the analysis of the Commission the revenue requirement and the gap for the FY 2011-12 would be as under:

ARR	62.63 crore
Revenue at existing tariff	46.30 crore
Revenue gap	16.33 crore

The Commission directs MUPL to maintain the existing tariff for the year 2011-12. The gap of FY 2010-11 and also the gap of FY 2011-12 will be considered at the time of "Truing up' of respective years and the adjustment that is required will be considered during FY 2012-13 and FY 2013-14 by which time more consumers will be added and sales volume will increase and the impact of tariff hike may not be considerable.

The Commission retains the existing tariff for the FY 2011-12 and MUPL shall continue to implement the existing tariffs till the next tariff order is issued.

The tariff schedule is appended as Annexure 1.

5.11 Determination of Wheeling Charges

In accordance with Regulation 88.1 of GERC MYT Regulations, 2011, the Commission shall specify the wheeling charges for Distribution wires business of the

Distribution licensee in its order passed under section (3) of section 64 of the Electricity Act, 2003.

The MUPL has given allocation matrix for distribution wheeling and retail supply business. The allocation is as per GERC (MYT) Regulations, 2011 except in the case of contingency reserve and provision for debts. The matrix with due corrections for the two items are given in the table below:

Table 5.27: Allocation matrix for distribution and retail supply business approved by the Commission

Sr. No.	Particular	Wheeling (%)	Supply (%)	Total (%)
1	Power purchase	0	100	100
2	Employee expenses	60	40	100
3	Repairs and maintenance expenses	90	10	100
4	Administrative and general expenses	50	50	100
5	Depreciation	90	10	100
6	Interest on long term loans	90	10	100
7	Interest on security deposit	10	90	100
8	Interest on working capital	10	90	100
9	Provision for bad debts	0	100	100
10	Contingency reserve	100	0	100
11	Income tax	90	10	100
12	Return on equity	90	10	100
13	Non-tariff income	10	90	100

5.11.1 Based on the above matrix the ARR approved is allocated between distribution and retail supply business as shown below:

Table 5.28: ARR for determination of wheeling charges

(Rs. crore)

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Power purchase expenses	0	0	0	0	0
2	**O&M Expenses**	**3.14**	**3.32**	**3.52**	**3.71**	**3.93**
	-Employee expenses					
	-Repairs and maintenance expenses					
	-Administrative and general expenses					
3	Depreciation	3.71	5.31	6.77	7.52	7.96
4	Interest on long term loans	5.30	7.03	8.39	8.71	8.44
5	Interest on security	0.03	0.07	0.14	0.27	0.51

	deposit					
6	Interest on working capital					
7	Provision for bad debts					
8	Contingency reserve	0.24	0.29	0.35	0.41	0.50
9	Income tax	0.00	0.00	0.00	0.00	0.00
10	**Revenue expenditure**	**12.42**	**16.02**	**19.17**	**20.62**	**21.34**
10	Return on equity @14%	3.13	4.40	5.53	6.15	6.46
11	Less: Non-tariff income	0.01	0.01	0.01	0.01	0.01
12	**Aggregate Revenue Requirement**	**15.54**	**20.41**	**24.69**	**26.76**	**27.79**

Table 5.29: ARR for retail supply business

Sr. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Power purchase expenses	43.40	58.67	101.40	189.48	329.50
2	**O&M Expenses**	**2.10**	**2.22**	**2.34**	**2.48**	**2.62**
	-Employee expenses					
	-Repairs and maintenance expenses					
	-Administrative and general expenses					
3	Depreciation	0.41	0.59	0.75	0.84	0.88
4	Interest on long term loans	0.59	0.78	0.93	0.97	0.94
5	Interest on security deposit	0.28	0.66	1.28	2.46	4.57
6	Interest on working capital					
7	Provision for bad debts					
8	Contingency reserve					
9	Income tax					
10	**Revenue expenditure**	**46.78**	**62.92**	**106.70**	**196.23**	**338.51**
10	Return on equity @14%	0.35	0.49	0.62	0.68	0.72
11	Less: Non-tariff income	0.04	0.05	0.07	0.09	0.12
12	**Aggregate Revenue Requirement**	**47.09**	**63.36**	**107.27**	**196.82**	**339.11**

5.11.2 Wheeling charges

Since the network of MUPL is still developing, and MUPL has not provided the details of 33 kV, 11 kV and LT network. In view of this, the Commission has computed the wheeling charges for the entire network without segregating into 33 kV, 11kV or LT voltage-wise. MUPL is directed to provide the details of 33 kV, 11 kV and LT network in the next tariff petition to work out the wheeling charges voltage-wise. The wheeling charges for FY 2011-12 are given in the table below:

Table 5.30: Wheeling charges for the entire network

Sr. No.	Particulars	Units	Amount
1.	Total distribution costs (wheeling cost)	Rs. crore	15.54
2.	Energy input	MU	102.42
3.	Wheeling charges	Rs./kWh	1.52

5.12 Cross subsidy surcharge

The cross subsidy surcharge for MUPL based on the formula given in the National Tariff Policy.

S = T-[C (1+L/100)+D]

S = Surcharge

T = Tariff payable to the relevant category of consumer

C = Weighted average cost of power purchase of top 5%.

D = Wheeling charges

L = System loss applicable

S = 4.93 - [4.06(1+8/100) + 1.52]

= 4.93-5.90 = (-) 0.97

Since the cross subsidy charge according to above calculation works out to be negative, there will not be any cross subsidy charge for MUPL area for FY 2011-12.

5.13 Fuel Price and Power Purchase Adjustment (FPPPA)

The MUPL has submitted that it would be purchasing power from Adani Power Limited or other sources under short-term arrangement and it will vary depending on the demand of MUPL.

The MUPL further stated that the power purchase cost would vary from the projections incorporated in ARR due to various controllable factors, such as

- Demand fluctuation
- Energy drawal variation
- Variation in transmission charges and transmission losses
- Variation in fuel price, fuel transportation and / or handling charges and other charges

- Other, if any

The MUPL has furnished a formula for recovery of amounts eligible for recovery.

Formula

The amount eligible for recovery through the Power Purchase Adjustment Formula is for the price and mix variation in the quantity of energy to be purchased as per the tariff order during quarter 'i'. This is to be computed for each of the month and aggregated for the quarter 'i'.

$$F_i = [(P_i \times E_i \times 10) + FC_i + I_i] / [E_i \times (1 - \text{T\&D Losses}) \times 10]$$

i	The FPPPA per kWh (Rs./kWh)
Pi	The difference between the weighted average variable cost (Rs./kWh) of power procured per kWh in quarter i and the weighted average variable cost of power procurement adopted in tariff order.
Ei	Total energy procured during the quarter in MUs.
FCi	Difference in actual total fixed charges (Rs. Lakhs) of power procured from the base value adopted in the tariff order on pro-rata basis for that quarter.
Ii	Impact of change in Interest on Working Capital on account of change in power procurement cost in relevant quarter. (Rs. Lakhs)
T&D losses	Transmission and Distribution losses (%age)

Commission's Analysis

The Commission has already approved a formula for fuel and power purchase adjustment for the distribution companies to recover costs from consumers for any variation in the fuel and power purchase costs in the order dated 25th June, 2004 (Case No. 252/2003). The approved formula is given below:

MUPL shall adopt the same formula for recovery of any variation in power purchase cost.

$$\text{FPPPA} = [F_{OG} + PPP_1 + PPP_2] \div [S.E.]$$

Where,

$$F_{OG} = \sum_{n=1}^{k} [(H_B \times OGD_A) \times (\text{Fuel } C_A - \text{Fuel } C_B)]$$

Where,

F_{OG}	Adjustment on account of variations in delivered cost of Fuel at GEB's Thermal Power Stations Rs. in millions

n	1 to k, the thermal power stations in GEB. Details at Table-8.
OGD_A	is the actual level of delivered energy at the bus bar (net generation) from GEB's thermal plants in million units during the control period.
H_B	is the base station heat rate in K.Cal./ Kwh calculated on the net output using permitted auxiliary consumption (Table -8)
$FuelC_A$	is the new landed price of fuel at relevant GEB's generating stations, expressed in Rs. / Kcal calculated after **allowing only statutory / notified increases (or decreases) in the price of fuel/railway freight, taxes and duties on fuel as well as fuel price increase by central/state Government PSUs.@**
$FuelC_B$	is the base## landed price of fuel at relevant GEB's generating stations, expressed in Rs. / Kcal calculated using the base data. This parameter is constant (frozen) for the various quarters (periods) for which increases in fuel prices is being permitted.

Base year for this order is the Financial Year 2003-04

$$PPP_1 = \sum_{m=1}^{k} [(VC_A - VC_B) \times Q_A] ;$$

Where,

PPP_1	Adjustment on account of variable cost of power purchased in Rs. Millions
m	1 to k, the sources from which power is purchased
VC_A	Is the variable cost per unit of delivered energy, computed based on the principles laid down in the power purchase agreements in Rs. / KWh
VC_B	Is the base ## variable cost per unit of delivered energy from each source in Rs. / KWh
Q_A	Is the actual level of power purchases from each source in million units.

Base year for this order is Financial Year 2003-04

$$PPP_2 = \sum_{m=1}^{k} [(FC_A - FC_B)]$$

Where,

PPP_2	Adjustment on account of fixed cost of power purchased in Rs. Millions
m	1 to k, the sources from which power is purchased
FC_A	Is the actual fixed cost paid in Rs. Millions
FC_B	Is the base ## fixed costs payable in Rs. Millions

Base year for this tariff order is Financial Year 2003-04

and

S.E. (in MU) = [(Total Sales in MU + Excess T & D loss in MU)]

Where,

Total Sales = Actual energy sold to metered categories in MU + Estimated energy supplied to un-metered consumers based on norms approved, in MU

Excess T & D loss in MU=
{(Net Generation in MU + Power Purchase in MU – Total sales in MU)} -
{(Net Generation in MU + Power Purchase in MU) X (%T& D loss Norm)}

Where,

%T & D loss Norm = % T & D loss level approved by the Commission.

Base price of power purchase

The base price of power purchase approved is Rs.4.06 / kWh, MUPL may claim any variation in the power purchase price as per the formula approved above.

6. Directives

6.1 General

It is observed from the MYT petition filed by MUPL for FY 2011-12 to FY 2015-16, that there are some issues which need immediate attention of MUPL. In this context, the Commission considered it necessary to issue certain directives to MUPL.

The MUPL shall take prompt action on the directives issued and submit quarterly implementation report to the Commission.

6.2 Directives

6.2.1 Directive 1: Power Procurement

The MUPL shall immediately initiate action, if it is not already done, to invite bids for power procurement as per Government of India guidelines for a period of 4 to 5 years indicating the yearly requirement. MUPL is also directed to submit the bid documents, statement of bids received and proposal for purchase of power to the Commission for its approval.

Action taken shall be reported to the Commission before the end of September, 2011.

6.2.2 Directive 2: Assessment of Distribution Losses

MUPL has projected distribution loss of 8.0% for 2011-12 with 0.25% reduction during each year of the control period. The Commission has approved the loss level of 8.0% for 2011-12, since it is the initial year of operation and MUPL has no means of measuring the loss.

The MUPL is directed to conduct energy audit by providing meters on all feeders and transformers to establish the loss level in the system. Energy audit shall be taken up immediately and the actual losses data be furnished within six months.

Projection of distribution loss without proper energy audit will not be accepted.

6.2.3 Directive 3: Business Plan

The MUPL shall submit a "Business Plan" for the control period keeping in view the GERC (Multi-Year Tariff) Regulations, 2011 by September, 2011.

6.2.4 Directive 4: Map of Mundra Special Economic Zone

The MUPL is directed to furnish a scaled map of Mundra SEZ with the licensed area of power supply. It should mark the interface points of power supply with existing and proposed network and the areas where the industries are likely to come up etc., for information of the Commission.

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement (ARR) for MPSEZ Utilities Private Limited (MUPL) for FY 2011-12 as shown in the following Table:

(Rs. crore)

Sr. No.	Particulars	Approved for FY 2011-12
1	Power Purchase cost	43.40
2	O&M Expenses	5.24
3	Depreciation	4.12
4	Interest on Long-Term Loans	5.89
5	Interest on Security Deposit	0.31
6	Interest on Working Capital	0.00
7	Income Tax	0.00
8	Contingency reserve	0.24
9	Revenue Expenditure	59.20
10	Return on Equity @ 14%	3.48
11	Less: Non-Tariff Income	0.05
12	**ARR**	**62.63**

The approved retail supply tariff will be in accordance with the Tariff Schedule annexed to this order. The order shall come into force from 1st September, 2011.

Sd/-	Sd/-	Sd/-
DR. M.K. IYER	**SHRI PRAVINBHAI PATEL**	**DR. P.K. MISHRA**
Member	Member	Chairman

Place : Ahmedabad

Date : 18.08.2011

Annexure 1

TARIFF SCHEDULE FOR FY 2011-12

Tariff Schedule for Mundra Port and SEZ License area of MPSEZ Utilities Private Limited

Effective from 1st September, 2011

General Conditions

1. This tariff schedule is applicable to all the consumers of MUPL in License area of Mundra SEZ.
2. All these tariffs for power supply are applicable to only one point of supply.
3. The meter charges shall be applicable as prescribed under GERC's (Licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation, 2005.
4. The energy bills shall be paid by the consumer within 10 days from the date of billing, failing which the consumer shall be liable to pay the delayed payment charges @15% p.a. for the number of days from the date of bill to the date of payment of bill.
5. The energy supplied under these tariffs can be utilized only within the compact area of the premises not intervened by any area/road belonging to any person or authority other than the consumer.
6. The power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.
7. The various provisions of the GERC's (Licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation, 2005 will continue to apply.
8. The charges specified in the tariff are on monthly basis, MUPL shall adjust the rates according to billing period applicable to consumer.
9. Conversion of Ratings of electrical appliances and equipments from kilowatt to B.H.P. or vice versa will be done, when necessary, at the rate of 0.746 kilowatt equal to 1 B.H.P.
10. The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power or kilo-Watt (HP or

kW) as the case may be.

11. The fraction of less than 0.5 shall be rounded to next 0.5. The billing of energy charges will be done on complete one kilo-watt-hour (kWh).
12. The Connected Load for the purpose of billing will be taken as the maximum load connected during the billing period.
13. Contract Demand shall mean the maximum KVA for the supply which the MUPL undertakes to provide facilities to the consumer from time to time.
14. For computation of fixed charges, they will be computed at 85% of Contract Demand at Unity Power Factor or Actual whichever is higher on monthly basis
15. Maximum Demand in a month means the highest value of average KW delivered at the point of supply of the consumer during any consecutive 15/30 minutes in the said month.
16. Payment of penal charges for usage in excess of contract demand/load for any billing period does not entitle the consumer to draw in excess of contract demand/load as a matter of right. The levy of penal charge is in addition to other rights of MPSEZ Utilities Private Limited under the provisions of the Electricity Act, 2003 and regulations notified there-under.
17. The fixed charges, minimum charges, demand charges, meter rent and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.
18. The fuel cost and power purchase adjustment charges shall be applicable in accordance with the formula approved by the Gujarat Electricity Regulatory Commission from time to time.
19. These rates are exclusive of Electricity Duty, Tax on sale of electricity, Customs duty, Taxes and other charges levied / may be levied or such other taxes as may be levied by the Government or other Competent Authorities on bulk / retail supplies from time to time which are payable by consumers, in addition to the charges levied as per the tariff.
20. The payment of power factor penalty does not exempt the consumer from taking steps to improve the power factor to the levels specified in the Regulations notified under the Electricity Act, 2003 and MUPL shall be entitled to take any other action deemed necessary and authorized under the Act.

PART- I

SUPPLY DELIVERED AT LOW OR MEDIUM VOLTAGE
(230 VOLTS- SINGLE PHASE, 400 VOLTS- THREE PHASE, 50 HERTZ)

1. RATE: Residential

This tariff is applicable to services for lights, fans and domestic appliances for heating, cooling, cooking, cleaning and refrigeration purposes, general load and motive power in residential premises

1.1 FIXED CHARGE

(a)	Single Phase Supply	Rs. 30 per month per installation
(b)	Three Phase Supply	Rs. 45 per month per installation

1.2 ENERGY CHARGE

(i)	First 250 units consumed per month	375 Paise per Unit
(ii)	Remaining units consumed per month	425 Paise per Unit

1.3 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 1.1 above.

2. RATE: Commercial (Non-Demand)

This tariff is applicable to services for lights, fans and appliances for heating, cooling cooking, cleaning and refrigeration purposes, general load and motive power in premises other than those requiring the power supply for the purposes not specified in any other LT categories, up to 6 KVA of connected load.

2.1 FIXED CHARGE

Single Phase Supply	Rs. 100 per month per installation

2.2 ENERGY CHARGE

(i)	First 150 units consumed per month	425 Paise per Unit
(ii)	Remaining units consumed per month	450 Paise per Unit

2.3 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 2.1 above.

3. <u>RATE: Commercial (Demand)</u>

This tariff is applicable to lights, fans and appliances for heating, cooling, cooking, cleaning and refrigeration purposes, general load and motive power in premises other than those requiring the power supply for the purposes not specified in any other LT categories, having connected load of 6 KVA and above.

3.1 FIXED CHARGE

A) For Billing Demand up to and including the Contract Demand

Computed on 85 % of Contract Demand at u.p.f. and 100% Load Factor or Actual whichever is higher on monthly basis	75 Paise per Unit

B) For Billing Demand in excess of the Contract Demand

Computed on billing demand in excess of Contract Demand on Monthly basis	125 Paise per Unit

NOTE: The Billing Demand shall be highest of the following:

i. Actual Maximum Demand established during the month OR
ii. Eighty – five percent of the Contract Demand OR
iii. Six kVA

3.2 ENERGY CHARGE

A flat rate of	300 Paise per unit

3.3 POWER FACTOR ADJUSTMENT CHARGE

A) Where the average Power Factor during the Billing period exceeds 90%

For each 1%improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B) Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit

3.4 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 3.1 above.

4. RATE: Industrial (Non Demand)

This tariff is applicable upto 6 KVA of connected load in industrial premises (as defined under the Bombay Electricity Duty Act, 1958).

4.1 FIXED CHARGE

Single Phase Supply	Rs. 100 per Month per Installation

4.2 ENERGY CHARGE

(i)	First 150 units consumed per month	400 Paise per Unit
(ii)	Remaining units consumed per month	425 Paise per Unit

4.3 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 4.1 above.

5. RATE: Industrial (Demand)

This tariff is applicable to 6 KVA and above of connected load in industrial premises (as defined under the Bombay Electricity Duty Act, 1958), water works and pumping services operated by Local Authorities.

5.1 FIXED CHARGE

A) For Billing Demand upto and including the Contract Demand

Computed on 85 % of Contract Demand at u.p.f. and 100% Load Factor or Actual whichever is higher on monthly basis	75 Paise per Unit

B) For Billing Demand in excess of the Contract Demand

Computed on billing demand in excess of Contract Demand on Monthly basis	125 Paise per Unit

NOTE: The Billing Demand shall be highest of the following:

i. Actual Maximum Demand established during the month OR
ii. Eighty – five percent of the Contract Demand OR
iii. Six kVA

5.2 ENERGY CHARGE

A flat rate of	300 Paise per unit

5.3 POWER FACTOR ADJUSTMENT CHARGE

A) Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B) Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit

5.4 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 5.1 above.

6. <u>RATE: Street Lights</u>

Applicable to lighting systems for illumination of public roads.

6.1 ENERGY CHARGE

A flat rate of	375 Paise per Unit

7. RATE: Temporary

This tariff is applicable to installations for temporary requirement of electricity supply. A consumer not taking supply on regular basis under a proper agreement shall be deemed to be taking supply for temporary period.

7.1 FIXED CHARGE

A) For Billing Demand up to and including the Contract Demand

Computed on 85 % of Contract Demand at u.p.f. and 100% Load Factor or Actual whichever is higher on monthly basis	75 Paise per Unit

B) For Billing Demand in excess of the Contract Demand

Computed on billing demand in excess of Contract Demand on Monthly basis	125 Paise per Unit

NOTE: The Billing Demand shall be highest of the following:

i. Actual Maximum Demand established during the month OR
ii. Eighty – five percent of the Contract Demand

7.2 ENERGY CHARGE

A flat rate of	400 Paise per unit

7.3 POWER FACTOR ADJUSTMENT CHARGE

A) Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B) Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit

7.4 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 7.1 above.

PART- II

SUPPLY DELIVERED AT HIGH VOLTAGE

(11000 VOLTS AND ABOVE - THREE PHASE, 50 HERTZ)

8. RATE: HTMD - 1

This tariff is applicable for supply of energy to High Tension consumers contracting for maximum demand of 100 kVA and above for regular power supply and requiring the power supply for the purposes not specified in any other HT categories.

8.1 FIXED CHARGE

A) For Billing Demand up to and including the Contract Demand

Computed on 85 % of Contract Demand at u.p.f. and 100% Load Factor or Actual whichever is higher on monthly basis	75 Paise per Unit

B) For Billing Demand in excess of the Contract Demand

Computed on billing demand in excess of Contract Demand on Monthly basis	125 Paise per Unit

NOTE: The Billing Demand shall be highest of the following :

i. Actual Maximum Demand established during the month OR

ii. Eighty – five percent of the Contract Demand OR

iii. One hundred kVA

8.2 ENERGY CHARGE

A flat rate of	300 Paise per unit

8.3 POWER FACTOR ADJUSTMENT CHARGE

A) Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B) Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit

8.4 MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 8.1 above.

9. RATE: HTMD -II

This tariff is Applicable for supply of energy to High Tension consumers contracting for maximum demand of 100 kVA and above for temporary period, A Consumer not taking supply on regular basis under a proper agreement shall be deemed to be taking supply for temporary period.

9.1 FIXED CHARGE

A) For Billing Demand upto and including the Contract Demand

Computed on 85 % of Contract Demand at u.p.f. and 100% Load Factor or Actual whichever is higher on monthly basis	100 Paise per Unit

B) For Billing Demand in excess of the Contract Demand

Computed on billing demand in excess of Contract Demand on Monthly basis	150 Paise per Unit

NOTE: The Billing Demand shall be highest of the following :

i. Actual Maximum Demand established during the month OR
ii. Eighty – five percent of the Contract Demand OR
iii. One hundred kVA

9.2 ENERGY CHARGE

A flat rate of	500 Paise per unit

9.3 POWER FACTOR ADJUSTMENT CHARGE

A) Where the average Power Factor during the Billing period exceeds 90%

For each 1% improvement in the Power Factor from 90% to 95%	Rebate of 0.15 Paise per Unit
For each 1% improvement in the Power Factor above 95%	Rebate of 0.27 Paise per Unit

B) Where the average Power Factor during the Billing period is below 90%

For each 1% decrease in the Power Factor below 90%	Penalty of 3.00 Paise per Unit

9.4. MINIMUM BILL (excluding meter charges)

Payment of fixed charges as specified in 9.1 above.