

GUJARAT ELECTRICITY REGULATORY COMMISSION



Multi-Year Tariff Order:

Annual Performance Review / Truing up for FY 2010-11,
Aggregate Revenue Requirement for FY 2011-12 to 2015-16
and Retail Supply Tariff for FY 2011-12

For

Torrent Energy Limited (TEL)

Case No. 1117 of 2011

12th December, 2011

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सत्यमेव जयते

**GUJARAT ELECTRICITY REGULATORY COMMISSION
(GERC)**

AHMEDABAD

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ABBREVIATION

A&G	Administration and General Expenses
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
Control Period	FY 2011-12 to FY 2015-16
DGEN	Dahez Generation Plant
DGVCL	Dakshin Gujarat Vij Company Limited
DISCOM	Distribution Company
DSEZ	Dahez Special Economic Zone
EHV	Extra High Voltage
FPPPA	Fuel and Power Purchase Price Adjustment
FY	Financial Year
GEB	Gujarat Electricity Board
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Limited
GFA	Gross Fixed Assets
GoG	Government of Gujarat
GSECL	Gujarat State Electricity Corporation Limited
GUVNL	Gujarat Urja Vikas Nigam Limited
HT	High Tension
ICAI	Institute of Chartered Accountants of India
kV	Kilo Volt
kVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
kWh	Kilo Watt Hour
LT	Low Tension
MU	Million Units (Million kWh)
MW	Mega Watt
MYT	Multi-Year Tariff
O&M	Operation & Maintenance
PF	Power Factor
PFC	Power Finance Corporation
PGCIL	Power Grid Corporation of India Limited
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RTC	Round the Clock
SBAR	State Bank Advance Rate
SBI	State Bank of India
SEZ	Special Economic Zone
SLDC	State Load Despatch Centre
SPV	Special Purpose Vehicle
TEL	Torrent Energy Limited
UI	Unscheduled Interchange
YoY	Year on Year



Before the Gujarat Electricity Regulatory Commission at Ahmedabad

Case No. 1117 of 2011

Date of the Order: 12.12.2011

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 Torrent Energy Limited – Distribution business (herein after referred to as TEL-D or Petitioner), a distribution licensee, has filed its petition on 14th July, 2011 under section 62 of the Electricity Act, 2003 read with Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011 for truing up 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 2nd August, 2011 under Case No. 1117/2011.



1.2 Torrent Energy Limited (TEL-D)

- Torrent Energy Limited (TEL) is a Special Purpose Vehicle (SPV) company promoted by Torrent Power Limited (TPL), to fulfil its commitment to generate and distribute power as a co-developer of the Dahej Special Economic Zone.
- Dahej SEZ (DSEZ) is being developed by Government of Gujarat through Gujarat Industrial Development Corporation (GIDC) and Oil and Natural Gas Corporation (ONGC). The DSEZ has been notified by the Ministry of Commerce and Industry, Government of India vide Notification No. 2131(E) dated 20th December, 2006 as a Multi-Product SEZ.
- The Government of Gujarat has 'In-principle' approved Torrent Energy Limited as Co-developer in DSEZ area for the purpose of establishing generation and distribution facilities. Accordingly, TEL has entered into the Co-developer agreement with Dahej SEZ Ltd (DSL), a SPV created for developing the DSEZ.
- The Ministry of Commerce and Industry, Government of India has approved TEL as a Co-developer to set up generation and distribution infrastructure in DSEZ.
- The Gujarat Electricity Regulatory Commission vide its order dated 17th November, 2009 has issued order for issue of distribution license to TEL as a second distribution licensee as per the provisions of section 14 of the Electricity Act, 2003 for distribution of electricity in the DSEZ area. Accordingly, the Gujarat Electricity Regulatory Commission vide its letter dated 29th December, 2009 has issued distribution license dated 18th December, 2009.
- TEL has started commercial operations in Distribution from 4th April, 2010 and is in the process of establishing distribution network for power distribution to various SEZ units. TEL is also in the process of implementing power plant at Dahej called DGEN, which is a green field project. The proposed capacity is tentatively expected to commence generation from January, 2014.
- The distribution business of TEL is hereinafter referred to as Petitioner or Torrent Energy Limited – Distribution Business (TEL-D).



1.3 Commission's Order on the first ARR and Tariff petition of TEL-D

The TEL-D filed its first Multi-Year Tariff (MYT) Petition on 21st January, 2010, as per Caluse 4.1 of the GERC (Multi-Year Tariff) Regulations, 2007 for the 1st control period FY 2008-09 to FY 2010-11.

The Commisison vide its letter No. GERC/TEL/Tariff/2010/0768 dated 26th May, 2010 directed TEL-D to charge DGVCL tariff to the consumers of TEL-D in Dahej SEZ pending further action.

The Commission vide its letter No. GERC/MYT/Tariff/2010/1794 dated 12th November, 2010 also directed TEL-D to file the MYT petition for the next control period (FY 2011-12 to F 2015-16).

1.4 Admission of Current Petition and Public Hearing Process

The petitioner submitted its current petition for (1) Truing up for FY 2010-11 (2) Determination of Aggregate Revenue Requiement (ARR) for the control period for FY 2011-12 to FY 2015-16 and (3) Retail Supply Tariff for FY 2011-12 on 14th July, 2011. After premilanry analysis, the Commission admitted the petition as case No. 1117/2011 dated 2nd August, 2011.

In accordance with Section 64 of the Electricity Act, 2003, the Commission directed TEL-D to publish its application in the abridged form to ensure public participation. The Public Notice was issued in the following newspapers on 13th August, 2011 inviting objections / suggestions from its stakeholders on the ARR petition filed by it.

1. The Indian Express, Ahmedabad Eidition.
2. Gujrat Samachar, Ahmedabad Edition.
3. Sandesh, Ahmedabad Edition.

The interested parties/stakeholders were asked to file their objections / suggestions on the petition on or before 13th September, 2011.

The TEL-D /Commission received the objections / suggestions on the petition from the following consumers / consumer organisations.

1. Pidilite Industries Limited
2. Indofil Industries Limited



3. Firmenich Aromtics Production (I) Private Limited.
4. Utility Users Welfare Association

The public hearing was held on 18th October, 2011 wherein the following persons representing the industries / Consumer Association participated.

1. Sri C.S. Sahu and Sri Vagish Pandey representing M/s Pedilite Industries Limited.
2. Sri Ajay Singh representing Firmenich Aromtics Production (I) Private Limited.
3. Shri Bharat T. Gohil representing Utility Users Welfare Association

1.5 Approach to this Order

The TEL-D has submitted the current petition for truing up for FY 2010-11 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 truing up for FY 2010-11, is stated to be based on the actual audited performance for FY 2010-11.

The Commission has taken into consideration the Auditor's Certificate and the profit and loss account and data of actuals submitted by the TEL-D and the clarifications / additional information sought and received from the petitioner, for finalizing the truing up for FY 2010-11.

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.

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 TEL-D for the control period.



3. The **third chapter** provides a brief account of public hearing process including the objections raised by stakeholders, TEL-D responses and the Commission's view on the response.
4. The **fourth chapter** deals with the Annual Performance Review / Truing up for FY 2010-11.
5. The **fifth chapter** deals with the Aggregate Revenue Requirement of TEL-D for the control period FY 2011-12 to FY 2015-16 and Retail Supply Tariff for FY 2011-12.
6. The **sixth chapter** deals with Fuel and Power Purchase Price Adjustment charges (FPPPA).
7. The **seventh chapter** deals with the Directives of the Commission.

1.7 Business Plan

The TEL-D has submitted the Business Plan as per the requirement specified in GERC (MYT) Regulations, 2011. The Business Plan has been prepared in accordance with the provisions of GERC (MYT) Regulations, 2011.



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 TEL-D projected the Aggregate Revenue Requirement of Rs. 129.39 crore for FY 2011-12, Rs. 399.91 crore for FY 2012-13, Rs. 718.87 crore for FY 2013-14, Rs. 900.73 crore for FY 2014-15 and Rs. 996.31 crore for FY 2015-16 as detailed in the table below:

Table 2.1: Summary of ARR for the control period FY 2011-12 to FY 2015-16

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Cost of power purchase	105.70	354.70	661.27	829.15	913.53
2	Operation and Maintenance expenses					
2.1	Employee cost	1.92	2.96	4.37	6.86	8.79
2.2	Repairs and maintenance	1.65	1.93	2.58	3.19	3.75
2.3	Administration and general expenses	2.17	2.95	3.53	4.22	4.78
3	Depreciation	4.45	10.06	12.66	15.51	18.18
4	Interest on long term loans	7.48	14.94	17.54	20.36	22.30
6	Interest on security deposit	0.58	1.32	2.80	4.05	4.74
7	Interest on working capital	0.08	0.30	0.37	0.49	0.59
8	Provision for bad debts	0.13	0.40	0.72	0.90	1.00
9	Contingency reserve	0.85	1.06	1.35	1.62	1.87
10	Income tax	0.91	1.90	2.38	2.92	3.40
11	Revenue expenditure incl. Power purchase expense	125.92	392.52	709.57	889.27	982.93
12	Return on equity @ 14%	3.66	7.60	9.50	11.68	13.60
13	Less: Non-tariff income	0.19	0.21	0.20	0.22	0.22
14	Aggregate Revenue Requirement	129.39	399.91	718.87	900.73	996.31

(Rs. crore)

2.2 Request of TEL-D

The TEL-D requested the Commission to:

- (a) Admit the petition for truing up for FY 2010-11 and Aggregate Revenue Requirement for the control period FY 2011-12 to FY 2015-16.
- (b) Approve the gap of FY 2010-11 as per the final truing up along with carrying cost for unrecovered gap.
- (c) Allow the recovery of revenue gap of FY 2010-11 along with carrying cost.
- (d) Approve the Aggregate Revenue Requirement for the control period FY 2011-12 to FY 2015-16.



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and Retail Supply Tariff for FY 2011-12

- (e) Approve the retail supply tariff of electricity with effect from 1st April, 2011.
- (f) Approve the Fuel Price and Power Purchase Adjustment formula for TEL-D business.
- (g) Allow additions/ alterations/ changes/ modifications to the application at a future date.
- (h) Permit the Petitioner to file all necessary pleading and documents in the proceeding and documents from time to time for effective consideration of the proceeding.
- (i) Condone the delay in filing the present petition.
- (j) Allow any other relief, order or direction which the Commission deems fit to be issued.
- (k) Condone any inadvertent omissions/ errors/ rounding off difference/ shortcomings.



3. Brief outline of objections raised, response from TEL and views of the Commission

3.1 Public response to the petition

In response to the public notice inviting objections / suggestions from stakeholders on the petition filed by the TEL for Truing up for FY 2010-11, approval of Aggregate Revenue Requirement (ARR) for the control period FY 2011-12 to FY 2015-16 and determination of retail supply tariff for the FY 2011-12, the following four consumers / consumer organisations have filed their objections / suggestions in writing.

1. Pidilite Industries Limited, Regent Chambers, 7th Floor, Jamunalal Bajaj Marg, 208, Nariman point, Mumbai-400 021.
2. Indofil Industries Limited, Kalpataru Squire, 4th Floor, Kondivita road, Andheri (East), Mumbai-400 069.
3. Firmenich Aromatics Production (I) Private Limited, Novell House, Road NO.13, MIDC, Marol, Andheri (East) Mumbai-400 093.
4. M/s Utility Users Welfare Associations, Lakshmi Ginning Compound, Ahmedabad-382330.

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

3.2 Objections raised by (i) Pidilite Industries Ltd., (ii) Indofil Industries Ltd. and (iii) Firmenich Aromatics Production (I) Pvt. Ltd.

The three objectors have raised the same issues and hence the objections raised are dealt with together. The details of the submissions by the objectors, response by the petitioner and the views of the Commission are summarised in the following sections:

Objection 1: Demand and energy charges for HTMD-1 (Industrial)

The objectors have stated that TEL has proposed the billing of maximum contracted demand on KW basis at Rs.625/kW/month and for excess demand over contracted



demand at Rs.1000/kW/month. The DGVCL, the other licensee in the same area bills the maximum demand on kVA basis at Rs.240/kVA/month and for excess demand at Rs.370/kVA/month. If the power factor is considered at 1.0, the demand charges of TEL would be 2.60 times than those of DGVCL.

Regarding energy charges the TEL proposes to charge Rs.4.20 /kWh/month and the charges of DGVCL are Rs.4.10 / kWh/month. There is substantial difference between the charges proposed by TEL and charges being levied by DGVCL. The consumers have to pay huge amount to TEL for the same demand.

It is further submitted that TEL should actually charge lower demand and energy charges than DGVCL as various duty and tax benefits are applicable in SEZ area for generation and distribution and also due to less geographical distribution area. All the benefits should reflect in the proposed tariff. The objectors have also submitted a comparative statement of tariffs proposed by TEL and tariffs of DGVCL and other utilities in different states.

TEL's response

TEL submitted that the proposed tariff design is in line with the provisions of the Electricity Act, 2003 and the National Tariff Policy. Ideally, the fixed charge component of tariff, i.e. demand charge, should recover the entire fixed cost incurred by the licensee for providing services to its consumers and energy charges should reflect only the variable cost. The same is in line with the standard tariff philosophy of Two Part tariff. However, the demand charges of many licensees including DGVCL provide for marginal recovery of fixed cost. Therefore, the balance fixed cost is being recovered through the energy charge component in the existing tariff structure. The consumer should be required to pay for the contracted capacity irrespective of lower utilization else it amounts to cross-subsidization. Therefore, the Petitioner has proposed to increase the demand charges. Further, the Petitioner is laying the state-of the art distribution network compared to the radial overhead network of DGVCL. This network design also ensures higher reliability. It may kindly be noted that the Petitioner is also creating the ready to serve network to cater to the demand of consumers. Hence, the demand charges proposed by Petitioner are not comparable with DGVCL.



Objection 2: Time of use charges

The objectors have stated that TEL has proposed to charge Rs.1.00/kWh for 8.00 hours during peak period as 'Time of use' charges in addition to normal charges where as DGVCL charges Rs.0.75/kWh for 8 hours in addition to normal charges. The objectors have pleaded that TEL should charge the "Time of use charges" in line with DGVCL.

TEL's response

TEL submitted that the flattening of load through implementation of time differentiated tariff is always desirable and is the need of the hour in order to shift the consumption to non-peak hours. It may be noted that TOU charges would help in the effective implementation of Demand Side Management as envisaged in the NTP. The Petitioner has proposed the higher ToU charges in order to encourage consumption during the off-peak hours and thereby aid in the flattening of the load curve.

Objection 3: Power factor adjustment charges

The objectors have submitted that TEL has proposed to provide a rebate of 0.27 paise/kWh for power factor improvement of above 95%. The other licensee –DGVCL, provides a rebate of 0.5% of energy charges / month for every 1% increase in power factor over 95% which is a better incentive to consumers to invest and maintain power factor above 95%. The objectors have requested that TEL should charge in line with DGVCL.

TEL's response

TEL submitted that it is necessary and always desirable to maintain high power factor at the user end. When the energy conservation and energy efficiency is the need of the hour, it is necessary to specify such commercial intervention to achieve the ultimate objective. The Petitioner submits that the level of rebate in case of DGVCL is higher and does not commensurate with the benefit being derived from PF improvement. Thus, the Petitioner requests the Commission to allow the PF rebate as proposed by the Petitioner.



Objection 4: Power purchase cost

The Objectors have submitted that the Petitioner is sourcing power from GETCO/GUVNL till the commissioning of DGEN and DGVCL is also sourcing power from the same agency. Therefore, there is no reason for higher tariff of TEL

TEL's response

TEL submitted that the current power purchase arrangement between M/s GUVNL and the Petitioner is a distinct and different contractual arrangement and hence cannot be compared with any other existing arrangement.

Commission's view

The Commission examined the issues raised in the four (4) objections mentioned above and the replies of TEL and decisions are taken, which are reflected in the approved ARR and tariff for FY 2011-12.

Objection 5: Tariffs proposed by TEL

The Objectors have suggested that the tariff of the Petitioner should be lower as (i) Generation and Distribution network in SEZ area is exempted from duty and taxes on capital goods & input fuels (ii) Power sale is having nil duty & taxes in SEZ area (iii) Transportation cost of fuel is bare minimum. The Objectors have observed that the distribution losses of the Petitioner (@3.8%) are lower than that of the M/s DGVCL (@14-15%).

TEL's response

TEL submitted that all such factors have been considered while preparing the ARR. The Petitioner would like to submit that it has commenced its operations as new licensee last year. As SEZ is in developmental stage and utilization is lower, the initial cost works out to be higher. Hence, the Petitioner's tariff is higher than the DGVCL.

Commission's view

The above aspects are taken into account while estimating the ARR.

Objection 6: True up for FY 2010-11

The Objectors have suggested that the recovery of revenue gap of previous year along with carrying cost should be passed on in line with the GERC Guidelines which specify that only 1/3rd gap is to be passed on. Further, the Objectors have submitted that the consumers should not be penalised due to the revenue gap resulting from the delay in project implementation.

TEL's response

TEL submitted that the provision referred by the Objectors is meant for sharing of gains & losses on account of controllable factors and not for the adjustment of revenue gap arrived after truing up. The revenue gap has not arisen due to delay in project implementation by TEL but mainly due to lower utilization arising from construction activities and delay in start up of projects by prospective customers consequent to the economic slowdown.

Commission's view

It is observed that the gap has arisen due to estimation of higher energy sales and power purchase commitment. The actual energy sales for FY 2010-11 were only 32.25 MU against the estimate of 266.87 MU. The lower utilization of capacity booked resulted in high compensation payable to the generator. The Commission, therefore, is of the view that passing on the gap for FY 2010-11 to the consumers is not appropriate.

Objection 7: FPA / FPPPA

The Objectors have sought the modality and calculation of FCA/ FPPPA for better understanding.

TEL's response

TEL submitted that the modality and formula for FPPPA has been detailed at Chapter 8 of the Tariff Petition (Case No. 1117/2011). It may kindly be noted that the formula provides for recovery of variation arising out of difference in base cost as approved by the Commission with the actual cost.

Commission's view

The Commission has given an appropriate formula in the order for calculation of FCA / FPPPA which is self explanatory.

3.3 Objections raised by Utility Users Welfare Association

The Utility Users Welfare Association has raised the following objections (Objections 8 to 12).

Objection 8: Petition not maintainable

Objection: The objector has mentioned that the petition is not maintainable as the same is (i) in violation of Electricity Act, 2003 and Rules and Regulations of the Commission (ii) not in the required format (iii) is not filed with the "Accounting Statement" as is required and there is no independent corroboration and determination of expenses and revenue between regulated and non-regulated businesses of TPL and (iv) not filed in time.

TEL's response

TEL submitted that the petition has been made in line with the various Regulations of the Commission, and in the required formats specified under various regulations of the Commission. The accounts are maintained as per the accounting statements specified by the ICAI duly audited by the Statutory Auditor. The late submission of the present petition is due to time taken for preparation of business plan for 5 years for which condonation of delay was requested from the Commission.

Commission's view

The petition was taken on record after ascertaining that it is according to the Regulations of the Commission and is in the required format. Additional data / clarifications required were obtained from the petitioner, before finalizing the ARR and tariffs. The Commission has no reason to believe that the statutory audit statements are mixed up with unregulated business of the petitioner. The delay in submission of petition is condoned by the Commission.

Objection 9: Truing up of FY 2010-11

Objection: The objector has mentioned that the Regulations do not specify any “Truing up” and truing up submitted based on audited performance but not based on audited accounting statement.

TEL’s response

The truing up of FY 2010-11 has been submitted in accordance with the provisions of Chapter-9 of GERC (MYT) Regulations, 2007 and the accounts are properly audited by statutory auditors, as specified by ICAI.

Commission’s view

There is provision for review of performance in Chapter 9 GERC (MYT) Regulations, 2007. The Commission considers the audited accounting statement submitted by the petitioner for the purpose of approving the ARR for FY 2010-11 for truing up, as a performance review, but review against audited accounts is termed as “Truing up”. The truing up is done based on audited accounts.

Objection 10: Power purchase

Objection: The objector has mentioned that the TEL has not followed the directive of the Commission, while obtaining the license, to enter into a PPA with GUVNL for purchase of power and also did not try to get the power by a bidding process, as per the guidelines issued by MOP, GOI and hence higher rate is paid for purchasing power from TPL, SUGEN. Even the RTC rate of Rs. 4.35 / Unit with GUVNL furnished is on higher side which is more than that supplied to other states by GUVNL.

TEL’s response

The petitioner had carried out the competitive bidding process as per the guidelines issued by the Ministry of power. The bid rate, which was very high, was discovered through competitive bidding route and evaluated by the bid evaluation committee as per the guidelines. Subsequently, the Hon’ble Commission had considered the recommendations of the bid evaluation committee and directed to find out the alternative arrangement. In turn, the petitioner sourced power from SUGEN as an interim arrangement.



A PPA is being entered with GUVNL at RTC rate Rs. 4.35 with medium term in the interest of the consumers.

Commission's view

The bidding process was as approved by the Commission. The agreement with GUVNL at RTC rate of Rs. 4.35 / unit for supply of power for the medium term is considered.

Objection 11: Demand and sales forecast

Objection: The objector has mentioned that the demand and sales forecast was not professionally done for FY 2010-11, as there is huge variation between forecast and actuals. The basis for forecast for the control period is not given.

TEL's response

TEL submitted that the forecast of demand and sales for FY 2010-11 was made based on feedback received from prospective consumers. But the activities were not as planned for, due to various reasons such as uncertainty in global markets. However, the petitioner is making its best efforts to forecast and the petitioner has furnished the detailed methodology for carrying out the forecast for sales and demand at Chapter -4 for the MYT petition.

Commission's view

The Commission considers the above response of the petitioner is acceptable. The forecast for the control period is accepted, as discussed in Chapters 4 & 5.

Objection 12: R&M, Employee cost and A&G costs

Objection: The objector has mentioned that R&M cost, employee cost and administration and general expenses for FY 2010-11 are to be properly evaluated, as the cost of non-regulated businesses is loaded on the regulated business. Some officials of TPL are representing before Commission on behalf of TEL. This is against the direction and terms and conditions of license.

TEL's response

TEL submitted that the R&M expenses of Rs. 1.32 crore incurred in FY 2010-11, for creation of temporary infrastructure for 66 kV connectivity, which is inevitable.



Regarding A&G expenses, the allegation is denied and all the terms and conditions of the license granted by the Commission are complied with. The petitioner company is wholly owned subsidiary of M/S TPL. Accordingly, the senior officials are authorized to sign documents and represent TEL. It is in the overall interest of the consumers, and it reduces cost.

Commission's view

The R&M costs, employee costs and A&G expenses are considered based on audited statement.



4. Annual Performance Review / Truing up for FY 2010-11

4.1 Introduction

This chapter of the order deals with Truing up for FY 2010-11 (4th April, 2010 to 31st March 2011) based on the audited performance. The Commission has analysed the components of ARR for FY 2010-11 in the following sections.

4.2 Energy demand

The TEL-D has submitted that it had projected the demand of 70 MW for FY 2010-11 for the entire SEZ and while the actual demand registered is 15.34 MW. The details of original projection and actual for FY 2010-11 are given in the table below:

Table 4.1: Projected and actual demand (MW) for FY 2010-11

Particulars	ARR petition	Actual
East side (MW)	42.00	13.87
West side (MW)	28.00	1.47
Total demand (MW)	70.00	15.34

(MW)

TEL-D has explained that reduction in the demand is due to delay in commencement of the operation of some units as well as reduction by some units in the projection of the capacity envisaged in the original projection.

4.3 Energy sales

TEL-D has submitted that it had projected the sales of 266.87 MU for FY 2010-11 in MYT petition for the 1st control period but the actual sales registered are 32.25 MU as detailed in the table below:

Table 4.2: Projected and actual sales (MU) for FY 2010-11

Particulars	ARR petition	Actual
Other plants (excluding ONGC)	203.87	31.98
ONGC C2-C3 plant	55.00	-
OPaL	8.00	0.27
Total sales	266.87	32.25

(MU)

TEL-D has explained that the deviation in sales is mainly because of delay in the commissioning of various industrial units and lower load factor of the units that have commenced operation than what was envisaged in the MYT petition. TEL-D has also



mentioned that ONGC C2-C3 along with OPaL has consumed only 0.27 MU against 63 MU of expected contribution in the MYT petition.

The category-wise energy sales projected and actuals furnished by TEL-D for FY 2010-11 are given in the table below:

Table 4.3: Category-wise sales for FY 2010-11 of TEL-D supply area

Particulars	ARR petition	Actual
Residential	0.00	0.00
Commercial Demand	0.05	0.02
Commercial Non Demand	0.00	0.00
Industrial Demand	0.00	0.00
Industrial Non Demand	0.00	0.00
HTMD – I	230.71	27.82
HTMD – II	0.65	0.00
HTMD - III (Temporary)	34.21	4.05
Street Light	0.19	0.03
LT (Temporary)	1.06	0.32
Total	266.87	32.25

(MU)

4.4 Number of installations

TEL-D has submitted that it had estimated the number of consumers based on the prospective consumers, market scenario, up-coming projects and expected development plans in the supply area. The delay in commencement of operation resulted in reduction of consumers. The projected and actual number of installations of FY 2010-11 are given in the table below:

Table 4.4: Projected and actual number of installations for FY 2010-11

Particulars	ARR petition	Actual
Residential	-	-
Commercial Non Demand	-	-
Commercial Demand	1	3
Industrial Non Demand	-	-
Industrial Demand	-	-
HTMD – I	16	5
HTMD – II	2	-
HTMD - III (Temporary)	21	7
Street Light	1	3
LT (Temporary)	9	13
Total	50	31

4.5 Distribution losses

TEL-D has submitted the projected and actual distribution loss for FY 2010-11 as detailed in the table below:



Table 4.5: Projected and actual distribution loss for FY 2010-11

In percentage	ARR petition	Actual
Distribution loss	4.00%	0.99%

TEL-D has explained that the utility has been making every effort to maintain a lower distribution loss on a continuous basis. The lower distribution loss during FY 2010-11 is on account of lower loading of the network due to deferment of the growth in the SEZ area and the release of majority connections at 11 kV network.

4.6 Energy Requirement and availability

TEL-D has submitted the energy requirement as per ARR petition and actuals for FY 2010-11 as detailed in the table below:

Table 4.6: Projected and actual energy requirement for FY 2010-11

Particulars	ARR petition	Actual
Energy Sales (MU)	266.87	32.25
Distribution Loss (%)	4%	0.99%
Distribution Loss (MU)	11.12	0.32
Energy Input at Distribution Level	277.99	32.57
Transmission Loss (%)	4.25%	4.16%
Transmission Loss (MU)	12.33	1.41
Total Energy Required (MU)	290.33	33.98

The petitioner has submitted that it had bilateral arrangement to cater to the demand of its consumers as detailed in the table below:

Table 4.7: Projected and actual energy availability for FY 2010-11

Particulars	ARR petition	Actual
Bilateral purchase	290.33	39.29
UI sales	-	(5.31)
Energy available	290.33	33.98

(MU)

Commission's Analysis

The Commission has noted the actual energy demand, energy sales, number of installations, distribution loss and actual energy requirement in the truing up for FY 2010-11.

4.7 Power purchase cost

It is submitted by TEL-D, that it made a long-term arrangement to cater to the demand of its consumers from the D-GEN project. Till the commissioning of D-GEN it



is stated that the petitioner is making continuous efforts to ascertain availability of power at competitive price. The petitioner made the arrangement for sourcing of power from SUGEN's merchant capacity at RTC rate of Rs. 5.50 per unit as an interim arrangement. As the short term and medium term power is generally available on RTC basis, the cost of under-utilisation of electricity due to lower off take is temporary phase as consumers are involved in the construction activities. Due to lower utilisation of capacity booked, TEL-D had to pay high compensation for under drawal of contracted power due to not achieving the projected sales, which resulted in higher per unit cost of power purchase during FY 2010-11. TEL-D had revised the short term PPA with SUGEN for step-wise increase in contracted capacity in line with increase in expected demand. This has helped in reduction of compensation to be paid for non-utilisation of contracted capacity and in turn reduction of power purchase cost marginally. The total power purchase cost for FY 2010-11, including applicable transmission charges and losses projected by TEL-D in MYT petition for 1st control period and the actual cost incurred during FY 2010-11 are furnished, as given in the table below:

Table 4.8: Projected power purchase cost for FY 2010-11 of TEL-D supply area

Particulars	ARR petition	Actual
Quantity in MU	290.33	39.29
Cost in Rs. crore	148.30	32.81

The petitioner has also requested for exemption of compliance of renewable power purchase obligation, as specified in the GERC (Procurement of energy from renewable sources) Regulations, 2010 as the Dahej distribution is a new area and FY 2010-11 is the first year of operation.

Commission's Analysis

It is submitted by TEL that they have made an interim arrangement to purchase power at RTC rate of Rs. 5.50 / kWh with SUGEN. But they have to pay high compensation for under utilization due to lower off take. Consequently they paid Rs. 32.81 crore for 39.29 MU instead of Rs. 21.61 crores. The Commission is of the view that the additional cost over and above Rs. 21.61 crores should not be burdened on the consumers. **The Commission considered the cost of 39.29 MU at Rs. 21.61 crore at Rs. 5.50 / kWh as given in the table below:**



Table 4.9: Power purchase cost considered for FY 2010-11

Particulars	ARR Petition	Actuals as per petitioner	As per Commission's analysis
Quantity in MU	290.33	39.29	39.29
Cost in Rs. crore	149.30	32.81	21.61

4.8 Capital expenditure

The petitioner has projected the capital expenditure at Rs. 119.52 crore in the ARR petition for FY 2010-11 and the actual capital expenditure as furnished is at Rs. 6.94 crore. The projection for FY 2009-10 is shown at Rs. 37.02 crore and the actual at Rs. 5.61 crore as detailed in the table below:

Table 4.10: CAPEX projected and actual for FY 2009-10 and FY 2010-11

(Rs. crore)

Sl. No.	Particulars	2009-10 (ARR Petition)	2009-10 (Actual)	2010-11 (ARR Petition)	2010-11 (Actual)
A	EHV (220 kV & 66kV)				
	EHV line	2.11	-	15.15	-
	EHV cable	0.76	-	-	0.46
	EHV Substation	0.70	0.01	26.17	0.26
	Land Cost	4.03	4.03	-	-
	Civil Cost	0.93	0.04	1.25	0.27
	Total	8.52	4.08	42.56	0.99
B	HT (33kV & 11kV) & NETWORK				
	33kV HT cable Network	17.16	-	32.89	-
	11kV HT cable Network	7.24	-	4.55	5.18
	33/11kV HT Substation	1.78	-	15.52	0.32
	Land Cost	1.54	1.53	-	-
	Civil Cost	-	-	9.07	0.25
	Total	27.72	1.53	62.03	5.75
C	Others				
	Automation & SCADA	-	-	8.40	-
	Testing and Measuring Equipment	0.57	-	1.58	0.17
	Meters & AMR	0.02	-	0.53	0.01
	IT	0.10	0.00	1.24	0.02
	Buildings & other civil work	0.10	-	3.17	0.00
	Total	0.80	0.00	14.93	0.20
	Grand Total	37.02	5.61	119.52	6.94

The petitioner has explained that the lower CAPEX for FY 2009-10 and FY 2010-11 was mainly on account of revision in network planning of 220 kV and 66 kV network



and non-incurrence of expenses proposed on EHV line and substation during these years and the postponement of CAPEX on 33kV HT cable network and 33 kV / 11 kV HT substation and CAPEX relating to SCADA to the next year.

Commission's Analysis

The actual CAPEX incurred during FY 2009-10 and FY 2010-11 is considered in the truing up for FY 2010-11.

Fixed charges

4.9 Operation and Maintenance (O&M) expenses

The O&M expenses actual for FY 2010-11 are furnished at Rs. 2.36 crore against Rs. 3.92 crore projected in the ARR petition. The details furnished by TEL-D are given in the table below:

Table 4.11: Projected and actual O&M expenses for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
Employee Cost	1.55	0.26
Repair & Maintenance Cost	0.62	1.51
Administration & General cost	1.74	0.59
Total O & M cost	3.92	2.36

Petitioner's submission

The petitioner has submitted that TEL-D is developing its distribution network as per the pace of industrial development taking place in the Dahej SEZ area and because of the lower growth in the SEZ, the deployment of the manpower is reduced. This has resulted in lower employee cost against its original estimates.

TEL-D has further submitted that it has made payment of Rs. 1.32 crore for creation of temporary infrastructure of 66 kV connectivity to cater to the initial demand of consumers under R&M expenses.

Commission's Analysis

The Commission has noted that the O&M expenses paid at Rs. 2.36 crore are as per the audited annual accounts submitted with the petition for FY 2010-11 as detailed in the table below:



Table 4.12: O&M expenses considered in the truing up for FY 2010-11

Particulars	Considered in the truing up
Employee Cost	0.26
Repair & Maintenance Cost	1.51
Administration & General cost	0.59
Total O & M cost	2.36

(Rs. crore)

4.10 Interest expenses

The TEL-D has furnished the actual interest expenses at Rs. 0.65 crore against Rs. 10.58 crore of normative interest claimed in the ARR petition for FY 2010-11. The normative borrowing and interest claimed there on are given in the table below:

Table 4.13: Normative borrowings and interest claimed for FY 2010-11

Particulars	ARR petition	Actual
Capitalization During the Year	119.52	6.94
Less : Service Line Contribution (SLC)	-	1.28
Net Capitalization	119.52	5.66
Borrowings @70% of Net Capitalization	83.66	3.96
Interest Expense	10.58	0.65

(Rs. crore)

Petitioner's submission

The petitioner has submitted that TEL-D had estimated the borrowings of Rs. 83.66 crore for FY 2010-11 on capitalisation of Rs. 119.52 crore. It is further submitted that TEL-D has rescheduled its capital expenditure plan because of lower growth and demand compared to the earlier projection during FY 2010-11 and it has not raised any debt during FY 2010-11. But based on the actual capitalisation, TEL-D has worked out the normative debt at Rs. 3.96 crore for FY 2010-11 and the normative interest is claimed at 11% against 12.25% claimed in the MYT petition of FY 2010-11.

Commission's Analysis

The actual capitalisation on assets i.e addition of assets during FY 2010-11 is to the extent of Rs. 6.94 crore. After deducting service line contribution of Rs. 1.28 crores net capitalisation is Rs. 5.66 crores and 70% of this i.e Rs. 3.96 crore is claimed as normative borrowing and Rs. 0.65 crore as normative interest for FY 2010-11. It is noted that TEL-D has calculated the interest on the opening balance of loan of Rs. 3.93 crore for full year and on the addition of Rs. 3.96 crore loan for six months at 11% per annum. But the TEL-D has not considered any repayment during FY 2010-



11. The Commission has considered the normative repayment of Rs. 0.40 crore (1/10th of the opening loan) and worked out the interest as detailed in the table below:

Table 4.14: Interest on loan approved

(Rs. crore)

Particulars	Amount of loan
Opening balance of loan	3.93
Normative loan during the year	3.96
Repayment during the year	0.40
Closing loan	7.49
Rate of interest	11%
Interest on loan	0.63

The interest expenses are considered at Rs. 0.63 crore in the truing up for FY 2010-11.

4.11 Interest on security deposit

The TEL-D has furnished the actual interest on security deposit at Rs. 0.34 crore against Rs. 0.44 crore projected in the ARR petition as detailed in the table below:

Table 4.15: Interest and security deposit projected and actual for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
Consumer deposits	10.00	8.66
Interest on deposits	0.44	0.34
Interest rate	6%	6%

Petitioner's submission

The petitioner has submitted that the addition of security deposit depends on the addition of new consumers and their load growth. It is further stated that due to few consumers and low load there is variation in the amount of estimated security deposits and interest thereon.

Commission's Analysis

The actual interest on security deposits as per the audited accounts for FY 2010-11 is noted at Rs. 0.34 crore as detailed in the table below:

Table 4.16: Approved Interest and security deposit for FY 2010-11

(Rs. crore)

Particulars	Considered in the truing up
Consumer deposits	8.66
Interest on deposits	0.34
Interest rate	6%



4.12 Interest on working capital

The TEL-D has claimed the interest on working capital at Rs. 0.67 crore in the truing up against Rs. 3.24 crore projected in the ARR petition for FY 2010-11 as detailed in the table below:

Table 4.17: Interest on working capital claimed by TEL-D for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
O&M Expenses (1 month)	0.33	0.20
Spares 1% of GFA	1.57	0.06
Receivables (2 Months)	29.69	6.23
Working Capital	31.58	6.49
Interest on Working Capital	3.24	0.67

Petitioner's submission

The petitioner has submitted that the interest on working capital has been worked out as per approved norms in the GERC Regulations and it has applied the rate of interest at 10.25% on the working capital requirement.

Commission's Analysis

It is noted that the utility has worked out the working capital at Rs. 6.23 crore taking into consideration the receivables at 2 months of the ARR amount of Rs. 37.40 crore. As per Regulation 66 of GERC (Terms and Conditions for Determination of Tariff) Regulations, 2005 receivables equivalent to two months of sales are to be considered. The actual sales revenue for FY 2010-11 was Rs. 22.21 crore and two months receivables worked out to Rs. 3.70 crore. The working capital and interest thereon are worked out as detailed in the table below:

Table 4.18: Approved Interest on working capital for FY 2010-11

(Rs. crore)

Particulars	Considered in the truing up
O&M Expenses (1 month)	0.20
Spares 1% of GFA	0.06
Receivables (2 Months)	3.70
Working Capital	3.96
Interest on Working Capital	0.41

The Commission, accordingly, considered the interest on working capital at Rs. 0.41 crore in the truing up for FY 2010-11.



4.13 Depreciation

The TEL-D has claimed the depreciation at Rs. 0.37 crore in the truing up against Rs. 5.62 crore projected in the ARR petition for FY 2010-11 as detailed in the table below:

Table 4.19: Depreciation claimed by TEL-D for FY 2010-11

	(Rs. crore)	
Particulars	ARR petition	Actual
Depreciation	5.62	0.37

Petitioner's submission

The petitioner has submitted that it has computed the depreciation as per the rates specified in the Appendix-III of the CERC (Terms and Conditions of Tariff) Regulations, 2009.

Commission's Analysis

The Commission has noted that the depreciation claimed by TEL-D is in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2009 for FY 2010-11 and hence considered as detailed in the table below:

Table 4.20: Approved Depreciation for FY 2010-11

	(Rs. crore)	
Particulars	Considered in the truing up	
Depreciation	0.37	

4.14 Return on equity

The TEL-D has claimed the return on equity at Rs. 0.35 crore in the truing up against Rs. 4.06 crore projected in the ARR petition for FY 2010-11 as detailed in the table below:

Table 4.21: Return on equity claimed by TEL-D for FY 2010-11

	(Rs. crore)	
Particulars	ARR petition	Actual
Opening Equity	11.11	1.68
Addition to Equity during the year	35.86	1.70
Closing Equity	46.96	3.38
ROE @14% on Average Balance	4.06	0.35

Petitioner's submission

The petitioner has submitted that the closing balance of equity has been arrived at considering the additional equity corresponding to 30% of the amount of net



capitalisation during FY 2010-11. The return on equity has been computed at 14% on the average equity balance.

Commission's Analysis

The Commission has noted that the return on normative equity of Rs. 0.35 crore is in accordance with the Regulations and hence considered in the truing up for FY 2010-11 as detailed in the table below:

Table 4.22: Approved Return on equity for FY 2010-11

Particulars	Considered in the truing up
Opening Equity	1.68
Addition to Equity during the year	1.70
Closing Equity	3.38
ROE @14% on Average Balance	0.35

(Rs. crore)

4.15 Income tax

The TEL-D has not claimed any income tax for FY 2010-11 stating that the income tax is not applicable as per the SEZ Act, 2005 and the rules framed there under.

4.16 Bad debts

The TEL-D has not claimed any bad debts in the truing up for FY 2010-11 against Rs. 0.20 crore projected in the ARR petition for FY 2010-11 as detailed in the table below:

Table 4.23: Provision for bad debts claimed by TEL-D for FY 2010-11

Particulars	ARR petition	Actual
Provision for bad debts	0.20	-

(Rs. crore)

Petitioner's submission

The petitioner has submitted that TEL-D has not claimed any bad debts for FY 2010-11 as the actual bad debts written off are nil.

4.17 Contingency reserve

The TEL-D has not claimed any contingency reserve in the truing up for FY 2010-11 against Rs. 0.20 crore projected in the ARR petition as detailed in the table below:

Table 4.24: Contingency reserve claimed by TEL-D for FY 2010-11

Particulars	ARR petition	Actual
Contingency reserve	0.20	-

(Rs. crore)



Petitioner's submission

The petitioner has submitted that TEL-D has not considered any amount towards the contingency reserve for FY 2010-11.

4.18 Non-tariff income

The TEL-D has furnished the actual non-tariff income at Rs. 0.15 crore in the truing up against Rs. 0.05 crore projected in the ARR petition for FY 2010-11 as detailed in the table below:

Table 4.25: Non-tariff income claimed by TEL-D for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
Non-tariff income	0.05	0.15

Commission's Analysis

The non-tariff income of Rs. 0.15 crore claimed by TEL-D is as per the audited accounts for FY 2010-11 and hence considered in the truing up for FY 2010-11 as detailed in the table below:

Table 4.26: Approved Non-tariff income FY 2010-11

(Rs. crore)

Particulars	Considered in the truing up
Non-tariff income	0.15

4.19 Revenue from sale of power

The TEL-D has furnished the actual revenue from sale of power at Rs. 22.21 crore in the truing up for FY 2010-11 against Rs. 178.13 crore projected in the ARR petition as detailed in the table below:

Table 4.27: Revenue from sale of power claimed by TEL-D for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
Revenue from sale of power	178.13	22.21

Petitioner's submission

The petitioner has submitted that it has projected the revenue from sale of power based on the estimated sales projection by applying the proposed tariff in MYT petition for 1st control period. The actual revenue is considerably lower than the estimated sales revenue due to lower growth of demand compared to the earlier projection during FY 2010-11. It is further submitted that TEL-D has charged



Torrent Energy Limited
APR / Truing up for FY 2010-11, ARR for FY 2011-12 to 2015-16
and Retail Supply Tariff for FY 2011-12

DGVCL's tariff to different categories of consumers, which has contributed to reduction in revenue.

The details of sales and revenue category wise have been furnished by TEL-D in its letter dated October 13, 2011 which are given in the table below:

Table 4.28: Category-wise breakup of sales & revenue for FY 2010-11

Category	MU	(All figures in Rs. lakh)						Total
		Fixed Charges	Energy Charges	ToU Charges	PF Adjust Chgs/ (Rebate)	Minimum Charges	NTC	
Commercial Demand	0.02	0.03	1.05	-		-	-	1.07
HTMD – I	27.82	185.45	1151.29	68.82	(24.82)	-	(1.28)	1379.46
HTMD – III (Temporary)	4.05	167.75	255.37	9.24	6.00	-	-	438.37
Street Light	0.03	-	1.14	-	-	-	-	1.14
LT (Temporary)	0.32	-	19.13	-	-	1.43	-	20.56
FPPPA	-	-	-	-	-	-	-	200.66
UI	5.31	-	-	-	-	-	-	179.82
Total	37.56	353.23	1427.97	78.07	(18.82)	1.43	(1.28)	2221.08

Commission's Analysis

It is observed from the audited accounts that the revenue from sale of power is Rs. 36.96 crore against Rs. 22.21 crore projected as revenue from sale of power in the petition. When the discrepancy was pointed out, the TEL-D informed that the revenue of Rs. 36.96 crore includes regulatory asset of Rs. 14.75 crore. The Commission is of the opinion that the revenue from sale of power in the audited accounts should represent the actual billed and the accrued based on the existing tariffs and should not include regulatory asset which has not been approved. The Commission has considered only the revenue from actual sale of power at Rs. 22.21 crore as submitted by TEL.

The Commission, accordingly, considers the revenue from sale of power at Rs. 22.21 crore for FY 2010-11.

4.20 Summary of the ARR for FY 2010-11

The ARR for FY 2010-11 as submitted by TEL-D in the ARR petition and the actual furnished in the truing up and as noted by the Commission in the truing up based on the audited accounts for FY 2010-11 is summarized in the table below:



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Table 4.29: Aggregate Revenue Requirement for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual	Considered in the truing up
Power Purchase Expenses	148.30	32.81	21.61
Operation and Maintenance (O&M) expenses			
<i>Employee expenses</i>	1.55	0.26	0.26
<i>Repair & Maintenance expenses</i>	0.62	1.51	1.51
<i>Administration & General Expenses</i>	1.74	0.59	0.59
Depreciation	5.62	0.37	0.37
Interest on long term loans	10.58	0.65	0.63
Interest on Security Deposit	0.44	0.34	0.34
Interest on Working Capital	3.24	0.67	0.41
Provision for bad debts	0.20	-	-
Contingency reserve	0.20	-	-
Income tax	-	-	-
Revenue expenditure including Power purchase expenses	172.49	37.20	25.72
Return on equity @ 14%	4.06	0.35	0.35
Less: Non-tariff income	0.05	0.15	0.15
ARR	176.51	37.40	25.92
Revenue from sale of energy	178.13	22.21	22.21
Revenue gap	(1.61)	15.19	3.71

4.21 Revenue Gap for FY 2010-11

The petitioner has claimed a revenue gap of Rs. 15.19 crore in the truing up for FY 2010-11 and carrying cost of Rs. 1.67 crore making the total gap of Rs. 16.86 crore as detailed in the table below:

Table 4.30: Revenue gap claimed by TEL-D for FY 2010-11

(Rs. crore)

Particulars	ARR petition	Actual
Aggregate revenue requirement	176.51	37.40
Less: Revenue from sale of power	178.13*	22.21
Gap / (surplus) for FY 2010-11	(1.61)	15.19
Carrying cost	-	1.67
Total Gap	-	16.86

Commission's Analysis and Decisions

TEL has projected a gap of Rs.15.19 crore under 'truing up' for FY 2010-11. This gap has mainly arisen due to projection of high-energy sales and power purchase commitment based on the high-energy sales projected. The actual energy sales for FY 2010-11 were only 32.25 MU against projected sales of 266.87 MU and corresponding commitment to purchase 290 MU. Due to lower utilization of capacity booked, the TEL-D had to pay high compensation to the generator for underdrawal of contracted power due to not achieving the projected sale. This resulted in extra payment of about Rs.11.20 crore.



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The Commission had only given an interim order on 26th May, 2010 directing TEL to implement DGVCL tariff to TEL-D consumers in Dahej-SEZ pending further action.

The Commission had not approved the projected energy and power purchase. Hence the Commission considers that passing on Rs.15.19 crore under truing up to the consumers is not appropriate as it is mainly due to inflated projection of energy sales and power purchase commitment to meet the inflated energy sales. The Revenue gap as per Commission's analysis is Rs.3.71crore as detailed in the table below:

Table 4.31: approved Revenue gap for FY 2010-11

(Rs. crore)

Particulars	Claimed by TEL	Considered in the truing up
Aggregate revenue requirement	37.40	25.92
Less: Revenue from sale of power	22.21	22.21
Gap / (surplus) for FY 2010-11	15.19	3.71
Carrying cost	1.67	-
Total Gap	16.86	3.71

The approved revenue gap is taken into consideration in the Aggregate Revenue Requirement of FY 2011-12.



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 TEL-D in its MYT petition for the control period of FY 2011-12 to FY 2015-16 are discussed in this section.

5.1.1 Overall approach to energy sales

Petitioner's submission

TEL-D submitted that it is difficult to carry out actual sales projections, as the license area of Dahej SEZ is still in developmental phase and the infrastructure is yet to be established and industrial development is likely to take place gradually.

It is submitted that the TEL-D has endeavoured to relate the various factors and available information to estimate the sales projection as mentioned hereunder:

- The sales projections in DSEZ Area have been carried out based on projections of the quantum and location of load requirements within the SEZ. The DSEZ is likely to have majority industrial consumption with a negligible contribution of commercial and other consumer categories.
- The industrial unit holders would initially require power for construction and testing and later on for production. TEL-D has considered the inputs received during interaction with some existing as well as prospective consumers. The projections have been made by collecting maximum information from the site. However, the same may vary with pace at which the development of the SEZ takes place. The Petitioner submits that demand forecast is a continuous exercise and includes attempts to capture the trends in the industry, consumer behaviour, movement of macroeconomic indicators etc.



- The factors considered and the trends observed for arriving at the forecasts are discussed with projections of demand distributed in different areas of the Dahej SEZ.

Demand forecasting

- The rolling short-term plan has been based upon projections of the quantum and location of load requirements within the SEZ. Dahej SEZ is likely to have predominantly industrial load with a negligible contribution of commercial and other consumer categories. The industrial unit holders would initially require power for construction & testing and later on for production.
- The demand indicated by existing and prospective consumers is considered as the base for future projections.

Demand of OpaL

- ONGC Petro-additions Ltd. (OPaL) would be establishing a petrochemical complex in the Dahej SEZ. OPaL would be the anchor industry in Dahej SEZ with power demand of approx. 110 MW. This project is likely to be commissioned in the FY 2012-13. However OPaL would be requiring some power prior to the commissioning for construction and other activities.

Demand of other industries

- Although, Dahej SEZ is a multi-product SEZ, with the main activity of the SEZ being related to petrochemicals and its derivatives by OPaL, the focus of the majority of other industries in the SEZ will be to develop chemical and petrochemical units. Hence many reputed Corporates have firmed up plans for establishing their units in the SEZ. Rallies India Ltd, Godrej & Boyce, DIC Fine Chemical Ltd, Indofil etc. are a few such companies which have established their units in the Dahej SEZ. The smaller units are expected to complete the integration of chemical industry and support the mainstream activities. The demand of units in Dahej SEZ have been projected based on the following:
 - a. Estimation of the load requirements of the unit holders
 - b. Load for commercial establishments, common services, administrative blocks, public services like streetlights etc have been estimated.



Geographical distribution

It is stated by TEL-D that the Dahej SEZ area consists of two parts – East and West. For network planning, the same has been divided as:

- **East Part**

1. Category-I: Between TEL-D generation plot and GACL
2. Category-II: Other side of the generation plot
3. Category-III: Far east zone of east part
4. OPaL
5. Category -IV: south of OPaL

- **West Part**

1. ONGC C2-C3 Unit
2. Others: Other units in West part

- **East Part**

Category I: There are 13 large plots in this area. Seven unit holders have indicated their projected power requirements. The demand in the remaining plots has been projected on the basis of demand of unit holders plot size and GIDC norms (power demand per hectare specified depending on the type of industry). Demand for the entire area is expected to rise from 14.20 MW to 53.86 MW during control period.

Category II: There are 13 medium sized plots in the area. Eight unit holders have indicated their projected power requirements. The demand in the remaining plots has been projected on the basis of demand of unit holders, plot size and GIDC norms (power demand per hectare specified depending on the type of industry). Demand for the entire area is expected to rise from 14.69 MW to 36.32 MW during control period.

Category III: There are 68 small sized plots in the area. Thirteen unit holders have indicated their projected power requirements. The demand in the remaining plots has been projected on the basis of demand of unit holders, plot size and GIDC norms (power demand per hectare specified depending on the type of industry). Demand for the entire area is expected to increase from 5.27 MW to 22.02 MW during control period.



OPaL : Petrochemical Unit of OPaL located in the East part of Dahej SEZ area is the anchor industry with requirement of power demand of 0.9 MW initially which will reach upto 110 MW during the control period.

Category IV: There are 4 large sized plots in the area. The demand has been projected on the basis of plot size and GIDC norms (power demand per hectare specified depending on the type of industry). Demand for the entire area is expected to rise from 6.05 MW to 36.42 MW during the period.

- **West Part**

ONGC C2-C3 Unit: It is located in the West part of the SEZ area. Demand for their unit is estimated to be 12 MW in the FY 2011-12 and expected to be steady for their operations.

Others: There are 45 plots of various sizes in the area. Fifteen plot holders have indicated their projected power requirements. The demand in the area has been projected on the basis of unit holders; plot size and GIDC norms (power demand per hectare specified depending on the type of industry). Demand for the entire area is expected to rise from 11.19 MW to 87.41 MW during the control period.

The demand estimation for the control period is as given in the table below:

Table 5.1: Demand Estimation for FY 2011-12 to 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
East Side	41.12	154.66	193.84	239.02	258.62
West Side	23.19	28.07	47.38	73.87	99.41
Total Demand	64.31	182.73	241.22	312.89	358.03

(MW)

TEL has submitted the assumptions for demand and sales are as follows:

- It is assumed that initially the units will avail temporary supply for 1-1.5 years and thereafter the power supply will be permanent in nature.
- It is assumed that in FY 2011-12 the demand will be primarily for construction as well as for operationalisation of the units.
- Load Factor of temporary connections is considered to vary from 22% to 40%.
- Load Factor of Permanent connections is considered as minimum 30% at initial stage and upto 70% upon ramping up of operations.



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- ONGC C2 - C3 unit is proposed to be catered in the year FY 2011-12 and load factor is considered as 60% at initial stage and upto 85% upon ramping up. (construction is already completed as on stage)
- OPaL would require demand of 0.9 MW for FY 2011-12 and shall avail 110 MW power from January 2013. Load factor of OPaL is expected to be 40% in the FY 2012-13, which shall ramp up to 90%.

Based on the above, TEL-D's projection of demand and sales are as given in the table below:

Table 5.2: Projected demand summary (MW)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Other plots (Excluding ONGC)	51.41	60.72	119.22	190.88	236.03
ONGC C2-C3 plant	12.00	12.00	12.00	12.00	12.00
OPaL	0.90	110.00	110.00	110.00	110.00
Total demand	64.31	182.72	241.22	312.88	358.03

Table 5.3: Projected sales summary (MU)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Other plots (Excluding ONGC)	119.93	232.26	407.61	858.31	1224.38
ONGC C2-C3 plant	63.25	73.59	78.84	84.10	89.60
OPaL	3.95	385.44	770.88	819.06	869.62
Total sales	187.13	691.29	1257.33	1761.47	2183.60

Table 5.4: Projected category-wise sales summary (MU)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Residential	0.00	0.00	0.00	0.00	0.00
Commercial Demand	0.03	0.03	0.04	0.23	0.04
Commercial Non Demand	0.00	0.00	0.00	0.00	0.00
Industrial Demand	0.27	0.41	1.66	5.53	15.22
Industrial Non Demand	0.00	0.00	0.00	0.00	0.00
HTMD – I	137.86	599.80	1,227.39	1,710.52	2,101.65
HTMD – II	5.27	6.13	20.64	41.94	65.59
HTMD - III (Temporary)	43.36	82.39	3.85	0.00	0.00
Street Light	0.28	0.30	0.80	0.80	0.80
LT (Temporary)	0.85	2.23	2.95	2.45	0.30
Total	187.92	691.29	1,257.33	1,761.47	2,183.60



TEL-D submitted that, this being a new area of operation, where development is yet to take place, the projected sales are on the best estimate basis and would vary depending on various factors.

Category-wise number of consumer installations

TEL-D has projected the category-wise number of consumer installations, for the control period FY 2011-12 to FY 2015-16, based on the details received from the prospective consumers and plots in SEZ area as given in the table below:

Table 5.5: Projected Number of installations

Particulars	(Nos.)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Commercial Demand	1	1	1	2	1
Commercial Non Demand	-	-	-	-	-
Industrial Demand	2	3	10	25	42
Industrial Non Demand	-	-	-	-	-
HTMD – I	17	25	59	67	72
HTMD – II	2	2	6	8	9
HTMD - III (Temporary)	27	34	1	-	-
Street Light	9	11	14	15	16
LT (Temporary)	11	27	35	25	3
Total	69	103	126	142	143

Commission's Analysis

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

The SEZ is in development stage, and there may be variation in the actuals, when compared to projections, as the sales depend on prospective developers establishing the industries, likely demand and energy sales.

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 category wise number of installations, the demand and the category-wise sales, approved for the control period for FY 2011-12 to FY 2015-16 are given in the tables below:



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Table 5.6: Approved category-wise number of consumer installations for the control period FY 2011-12 to FY 2015-16

Particulars	(Nos.)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Commercial Demand	1	1	1	2	1
Commercial Non Demand	-	-	-	-	-
Industrial Demand	2	3	10	25	42
Industrial Non Demand	-	-	-	-	-
HTMD – I	17	25	59	67	72
HTMD – II	2	2	6	8	9
HTMD - III (Temporary)	27	34	1	-	-
Street Light	9	11	14	15	16
LT (Temporary)	11	27	35	25	3
Total	69	103	126	142	143

Table 5.7: Approved demand summary (MW) for the control period FY 2011-12 to FY 2015-16

Particulars	(MW)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Other plots (Excluding ONGC)	51.41	60.72	119.22	190.88	236.03
ONGC C2-C3 plant	12.00	12.00	12.00	12.00	12.00
OPaL	0.90	110.00	110.00	110.00	110.00
Total demand	64.31	182.72	241.22	312.88	358.03

Table 5.8: Approved category-wise sales for the control period FY 2011-12 to FY 2015-16

Particulars	(MU)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Residential	0.00	0.00	0.00	0.00	0.00
Commercial Demand	0.03	0.03	0.04	0.23	0.04
Commercial Non Demand	0.00	0.00	0.00	0.00	0.00
Industrial Demand	0.27	0.41	1.66	5.53	15.22
Industrial Non Demand	0.00	0.00	0.00	0.00	0.00
HTMD – I	137.86	599.80	1227.39	1710.52	2101.65
HTMD – II	5.27	6.13	20.64	41.94	65.59
HTMD - III (Temporary)	43.36	82.39	3.85	0.00	0.00
Street Light	0.28	0.30	0.80	0.80	0.80
LT (Temporary)	0.85	2.23	2.95	2.45	0.30
Total	187.92	691.29	1257.33	1761.47	2183.60

5.2 Distribution losses

The TEL-D has projected the distribution loss of 3% for FY 2011-12, with gradual increase upto 3.80% by the end of the control period, as given in the table below:



Table 5.9: Distribution loss projected by TEL-D for the control period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Distribution loss	3.00	3.30	3.35	3.75	3.80

(%)

Petitioner's submission

TEL-D submitted that the existing distribution losses are in the range of 1%. However, the same would gradually increase along with increase in the network loading, development of the network, feeder length, network voltage levels etc.

It is also submitted that there will be increase in technical loss to the minimum inevitable loss level, with the increased loading of the network, with the growth in demand of consumers. The capital expenditure proposed during the MYT period to upgrade the infrastructure is intended to maintain the loading of the network which could prevent increase in technical losses in the system and enable to serve the consumers demand efficiently. Considering these aspects, the petitioner has estimated the loss level in the range mentioned above, for the MYT period. It is stated that the lower loss level is estimated on account of assumption that the majority of consumers would be connected at HT voltage level.

5.2.1 EHV and Transmission loss

The TEL-D, submitted that upon operationalisation of 220 kV network for bringing bulk power from D Gen, there will be EHV loss of about 1.00%. In the meanwhile, the petitioner has considered the transmission loss of GETCO, which is in the range of 4.00%.

Commission's Analysis

The submission of TEL-D, for the projection of the distribution loss, EHV loss and transmission loss is examined. The distribution network and the power demand in the SEZ area is in development stage. It is difficult to estimate the distribution loss for the control period at this stage. The distribution loss of 3% is considered for the control period subject to conducting energy audit. Loss variation, if any, will be considered under 'truing up'. The transmission loss in GETCO network at 4.12% as approved in the Tariff Orders of DISCOMs for the MYT period FY 2011-12 to 2015-16 and the EHV loss at 1% as projected by TEL are approved as given in the table below:



Table 5.10: Distribution and transmission loss trajectory approved for the control period FY 2011-12 to FY 2015-16

Particulars	(%)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Distribution loss	3.00	3.00	3.00	3.00	3.00
Transmission losses	4.12	4.12	4.12	-	-
EHV losses	-	-	1.00	1.00	1.00

5.3 Energy requirement

The TEL-D, computed the energy requirement for Dahej SEZ area considering the projected distribution losses along with the applicable transmission losses and EHV losses on the estimated sales of the license area, as given in the table below:

Table 5.11: Energy balance as projected by TEL-D for the control period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Energy sales (MU)	187.13	691.29	1257.33	1761.47	2183.60
Distribution loss (%)	3.00	3.30	3.35	3.75	3.80
Distribution loss (MU)	5.79	23.59	43.59	68.63	86.25
Energy input at distribution level (MU)	192.91	714.88	1300.92	1830.10	2269.86
Transmission losses (MU)	8.42	30.95	46.09	18.48	22.93
Energy requirement including Transmission losses (MU)	201.33	745.83	1347.01	1848.58	2292.79

TEL-D indicated that it is in the process of setting up a power plant at Dahej called D-GEN, which is a green field project. The proposed capacity is tentatively expected to commence generation from January, 2014. Hence TEL-D submitted that it considered no transmission loss except EHV losses for evacuation of power from D-GEN, while arriving at energy balance, after commencement of generation from D-GEN.

Commission's Analysis

The submission of TEL-D is examined in respect of energy requirement and energy balance, with respect to the approved distribution loss, transmission loss and EHV loss and the energy balance for the control period, is approved as given in the table below:



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and Retail Supply Tariff for FY 2011-12

Table 5.12: Energy balance approved for the MYT period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Energy sales (MU)	187.92	691.29	1257.33	1761.47	2183.60
Distribution loss (%)	3.00	3.00	3.00	3.00	3.00
Distribution loss (MU)	5.81	21.38	38.89	54.48	67.53
Energy input at distribution level (MU)	193.73	712.67	1296.22	1815.95	2251.13
Transmission losses (MU)	8.32	30.62	45.90	18.34	22.74
Energy requirement including Transmission losses (MU)	202.05	743.29	1342.12	1834.29	2273.87

5.4 Capital expenditure

The TEL-D has projected a capital expenditure of Rs. 361.43 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.13: Capital expenditure projected for the control period

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	Total cost
A	EHV (220 kV & 66kV)						
	EHV line	13.65	3.24	-	-	-	16.89
	EHV cable	-	-	-	-	-	-
	EHV Substation	26.63	2.96	11.52	17.76	23.91	82.78
	Land Cost	-	-	-	-	-	-
	Civil Cost	13.00	0.10	0.56	5.05	0.98	19.70
	Total	53.29	6.31	12.08	22.81	24.89	119.37
B	HT (33kV & 11kV) & NETWORK						
	33kV HT cable Network	51.67	13.05	33.47	13.75	13.68	125.62
	11kV HT cable Network	6.71	4.20	3.41	3.38	2.30	19.99
	33/11kV HT Substation	17.94	9.68	9.08	7.28	7.60	51.57
	Land Cost	-	-	-	-	-	-
	Civil Cost	17.75	-	-	1.00	-	18.75
	Total	94.07	26.92	45.96	25.40	23.58	215.93
C	Others						
	Automation & SCADA	7.14	1.26	-	5.29	-	13.69
	Testing and Measuring Equipment	2.07	0.52	0.62	0.31	0.24	3.76
	Meters & AMR	0.35	0.24	0.13	0.17	0.12	1.01
	IT	1.18	2.27	0.24	0.26	0.28	4.24
	Buildings & other civil work	-	3.43	-	-	-	3.43
	Total	10.75	7.72	0.99	6.03	0.64	26.13
	Grand Total	158.10	40.94	59.03	54.25	49.11	361.43



Petitioner's submission

The TEL-D has submitted that it has planned to undertake capital investment for development of distribution network to cater to the demand of its consumers and provide reliable power. Towards achieving the objective the TEL-D has procured the land for one No. 220/33/11 kV receiving station, one No. 220/33 kV receiving station, one No. 33/11 kV receiving station and required corridors for 220 kV line. It has also planned laying of one 220 kV double circuit line from TEL-D East to West and another from Dahej GETCO substation to TEL-D East in order to bring supply to the above mentioned receiving stations. The year-wise demand and the proposed CAPEX works are given below:

FY 2011-12:

The total demand of 64 MW, with 41 MW in the East part and 23 MW in the West part is estimated in FY 2011-12.

- (a) To cater the demand, it is proposed to establish one No 220 / 33 Kv substation in the East & 33/11 kV substation in the West. Initially, installed capacity in 220/33 kV substation would be 150 (2 x 75) MVA.
- (b) Interconnectivity between 33 kV East and 33 kV West substation to be created to ensure reliability at 33 kV level.
- (c) The 33 kV, HT and LT distribution systems would be established in tandem with consumer requirements. The SCADA, EAS and communication facilities are proposed to be setup for TEL-D 220/33 kV East, 33/11 kV East & 33/11 kV West substations during this year.

FY 2012-13:

A total demand of 183 MW, with 155 MW in the East part and 28 MW in the West part, is estimated in FY 2012-13.

- (a) Additional 20 MVA power transformers are proposed to be commissioned at each of East 33/11 kV & West 33/11 kV receiving stations.
- (b) The 33 kV and HT distribution systems will be developed in tandem with consumer requirements during the year. The redundancies are proposed to be created in the 33 kV and HT feeders by formation of rings for enhanced reliability during this year.



FY 2013-14:

A total of demand of 241 MW, with 194 MW in the East part and 47 MW in the West part is estimated in FY 2013-14.

- (a) To cater to the incremental demand, one additional 75 MVA ICT and 3 nos. of 220 kV bays and one 33/11kV power transformer are proposed to be commissioned in the East.
- (b) The 33 kV, HT and LT distribution systems will be established in tandem with consumer requirements. Few more radial connections would be converted into ring type during the year.

FY 2014-15:

A total demand of 313 MW, with 239 MW in East part and 74 MW in the West part is estimated in FY 2014-15.

- (a) To cater to the final demand requirement, it is proposed to start construction of 220/33kV substation in West part of Dahej SEZ during FY 2014-15.

FY 2015-16:

It is estimated that load demand will be around 358 MW by the end of FY 2015-16 with 259 MW for East part and 99 MW for West part.

- (a) Commissioning of additional 75MVA ICTs - one in 220/33kV East and Two in 220/33kV West with necessary distribution network establishment will be installed during this year.

Commission's Analysis

The TEL-D has to provide the required infrastructure in the Dahej SEZ area to meet the demand coming up in the SEZ area over the control period. The network has to be developed in a phased manner to meet the demand as and when it comes up. TEL-D has outlined the nature of work it has proposed to extend through the projected capital expenditure during the control period. The TEL-D has incurred CAPEX to the extent of Rs. 5.61 crore during FY 2009-10 and Rs. 6.94 crore in FY 2010-11. It has proposed to incur about Rs. 158 crore of CAPEX during FY 2011-12 against Rs. 361.43 crore projected for the control period.



Since the Dahej SEZ is in the process of development, the Commission accords in principle approval for the capital expenditure proposed for FY 2011-12 to FY 2015-16.

TEL-D has proposed the funding of CAPEX by adopting the debt equity ratio of 70:30 as per the GERC (MYT) Regulations, 2011.

It is observed from the calculation of depreciation (Form D-1) that TEL-D proposes to capitalize the entire CAPEX during the same year in which investment is proposed as the utility is operating in a limited area and has to complete the works on a time schedule to meet the demand of its consumers.

The Commission has obtained the capitalization (actual) till September, 2011 which is in the order of Rs. 28.54 crore and the capital works-in-progress (CWIP) at Rs. 17.45 crore as on 30/09/2011. The Commission takes a view that the entire capital expenditure may not be capitalized during the year as seen from the capitalization achieved in the H1. The Commission, considers the capitalization during FY 2011-12 at Rs. 91.98 crore being twice the amount of capitalization and WIP achieved during the first half year of FY 2011-12 $(Rs.28.54+17.45) \times 2 = 91.98$ crore. The capitalization considered works out to about 60% of the proposed CAPEX.

The CAPEX, capitalisation and funding of the CAPEX approved by the Commission are given in the table below:

Table 5.14: Approved funding of capital expenditure for the control period 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
Opening balance of CWIP	-	66.12	-	-	-
Add: New investment	158.10	40.94	59.03	54.25	49.11
Total	158.10	107.06	59.03	54.25	49.11
Less: Investment capitalised	91.98	107.06	59.03	54.25	49.11
Closing balance	66.12	-	-	-	-
Funding of CAPEX					
Capitalisation	91.98	107.06	59.03	54.25	49.11
Less: Grants	6.60	4.53	4.83	4.97	6.72
Balance Capitalisation	85.38	102.53	54.20	49.28	42.39
Loans @ 70%	59.77	71.77	37.94	34.50	29.67
Equity @ 30%	25.61	30.76	16.26	14.78	12.72



The Gross Fixed Assets and the addition of assets based on capitalisation during the control period are given in the table below:

Table 5.15: Gross fixed assets based on capatilisation during the control period FY 2011-12 to FY 2015-16

Particulars	Opening balance	Additions during the year	Closing balance
FY 2011-12	12.55	91.98	104.53
FY 2012-13	104.53	107.06	211.59
FY 2013-14	211.59	59.03	270.62
FY 2014-15	270.62	54.25	324.87
FY 2015-16	324.87	49.11	373.98

(Rs. crore)

5.5 Power purchase cost

The TEL-D had projected the power purchase cost for the control period, as given in the table below:

Table 5.16: Power purchase cost projected for the MYT period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total Quantity in MU	201.33	745.83	1347.01	1848.58	2292.79
Total Cost in Rs Cr.	105.70	354.70	661.27	829.15	913.53

It is submitted that the petitioner has made the long term arrangements to cater to the demand of its consumers from the D-GEN project. However, till the commissioning of D-GEN, it is submitted that continuous efforts are being made to ascertain availability of power at competitive price. Recently, the petitioner has entered into bilateral arrangement with GUVNL for sourcing power on RTC rate and had sought approval of the Commission and the same RTC rate has been considered as an interim arrangement to cater to the demand of the consumers till the commissioning of D-GEN. It is envisaged that generation of D-GEN would be available to Dahej SEZ from January, 2014. Accordingly, it has factored the estimated cost of D-GEN while arriving at the power purchase cost. The variable cost of D-GEN power is estimated at Rs. 2.04 / per unit along with fixed cost of capacity allocated to TEL-D. The capacity charge of D-GEN has been estimated in line with CERC (Terms and Conditions of Tariff) Regulations, 2009.

It is also submitted by TEL-D that it has not factored any energy purchase from renewable sources, as the majority of renewable sources are of infirm nature and the



SEZ being the new area, is still in a development stage and requests for allowing the recovery of such costs through the proposed FPPPA formula.

Based on the assumptions detailed above, TEL-D has given the details of the projected power purchase cost for the control period FY 2011-12 to FY 2015-16 as given in the table below:

Table 5.17: Projected details of Power purchase cost by TEL-D for the MYT period FY 2011-12 to FY 2015-16

Sl. No.	Particulars	Unit	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Quantum of power to be purchased	MU	201.33	745.88	1347.01	1848.58	2292.79
2.	Basic variable cost	Rs./kWh	5.00	4.58	4.76	4.40	3.92
3.	Transmission charges	Rs./kWh	0.25	0.18	0.14	0.09	0.07
4.	Basic variable cost	Rs. crore	100.58	341.25	641.80	813.19	897.99
5.	Transmission charge	Rs. crore	5.02	13.45	19.48	15.96	15.55
6.	Total cost	Rs. crore	105.70	354.70	661.27	829.15	913.53

Commission's Analysis

The TEL-D projected the RTC rate as per the recent bilateral arrangement with GUVNL for sourcing power. As discussed in the tariff order for TPL for the control period FY 2011-12 to FY 2015-16, the TPL has entered into an arrangement / agreement with GUVNL for supply of 140 MW with minimum off take of 70% at Rs. 4.35 per unit on round the clock basis for the FY 2011-12, 2012-13 and 2013-14. The Commission considers reasonable to adopt the same rate of Rs. 4.35 per unit for purchase of RTC power from GUVNL for TEL-D also for the years FY 2011-12, FY 2012-13 and FY 2013-14. From 2014-15 onwards TEL will be purchasing power from D-GEN subject to GERC approval.

The transmission charge is projected by TEL-D at 0.25, 0.18, 0.14/kWh for the years FY 2011-12, FY 2012-13 and FY 2013-14 respectively. The actuals of transmission charges for FY 2010-11, as claimed by the petitioner, was only Rs.0.15/kWh. In view of the above, the Commission considers it reasonable, to approve the transmission charges at Rs. 0.15/kWh for FY 2011-12 & FY 2012-13 and for other years as projected by TEL-D.



Based on the above analysis, the Commission approves the power purchase cost for the control period FY 2011-12 to FY 2015-16, as given in the table below:

Table 5.18: Details of power purchase cost approved by the Commission for the control period FY 2011-12 to FY 2015-16

Sl. No.	Particulars	Unit	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Quantum of power to be purchased	MU	202.05	743.29	1342.12	1834.29	2273.87
2.	Basic cost	Rs./kWh	4.35	4.35	4.35	*4.40	*3.92
3.	Transmission charge	Rs./kWh	0.15	0.15	0.14	0.09	0.07
4.	Basic cost	Rs. crore	87.89	323.33	583.82	807.09	891.36
5.	Transmission charge	Rs. crore	3.03	11.15	18.79	16.51	15.92
6.	Total cost	Rs. crore	90.92	334.48	602.61	823.60	907.28

* Cost of DGEN power subject to approval of the Commission.

Thus the power purchase cost approved for the control period is as given in the table below:

Table 5.19: Approved power purchase cost for the control period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total quantity in MU	201.21	743.29	1342.12	1834.29	2273.87
Total cost in Rs. crore	90.92	334.48	602.61	823.60	907.28

Any variations in the power purchase cost can be adjusted at the time of truing up. RPO obligation shall be followed and the cost will be considered at the time of truing up.

Fixed charges

5.6 Operation and Maintenance (O&M) expenses

The O&M expenses consist of employee expenses, A&G expenses and R&M expenses. The TEL-D has projected the O&M expenses at Rs. 55.65 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.20: O&M cost projected for the control period 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
O&M expenses	5.74	7.84	10.48	14.27	17.32



Petitioner's submission

The petitioner has submitted that the operations in Dahej SEZ have been started only last year and therefore the utility does not have actual O&M expenses for the last three years. The O&M expenses are projected for the control period considering the network and business growth along with inflationary increase in expenses. It is further submitted by the utility that full infrastructure is yet to be established in the SEZ area and the industrial development is likely to take place gradually with the pace of time.

The TEL-D has further submitted that for the purpose of projecting the estimates of cost, estimation of expense in each item has been undertaken, after due consideration to the requirement of operation and maintenance activities, related manpower and administrative support in tune with the business expansion envisaged in the ensuing years.

Commission's Analysis

The Commission has examined the submission made by the utility. The TEL-D has furnished the actual O&M expenses during the year FY 2010-11 at Rs. 2.36 crore and projected these expenses for the control period by escalating 43.2% for FY 2011-12, 36.6% for 2012-13, 32.7% for 2013-14, 36.2% for 2014-15 and 21.4% for 2015-16. The projection is not in accordance with the Regulation 98.6 (MYT) Regulations, 2011 for the control period.

With reference to a query from the Commission the TEL-D has submitted vide letter dated October 13, 2011 that the O&M expenses are in accordance with the provisions of Regulations 85.4 and 98.6 of the GERC (MYT) Regulations, 2011 and quoted the proviso.

"Provided that in case, the distribution licensee has been in operation for less than three (3) years as on the date of effectiveness of these Regulations, the O&M expenses shall be determined on case to case basis".

TEL-D has thus requested to approve the O&M expenses as projected.

As per the Regulation 98.6 of GERC (MYT) Regulations, 2011 the O&M expenses are to be derived on the basis of the average of the actual O&M expenses for the three (3) years ending March 31, 2010. In the case of TEL-D the utility has started commercial operation from 4th April, 2010. The utility has furnished the actual O&M expenses at Rs. 2.36 crore for FY 2010-11 which includes one-time expense of Rs. 1.32 crores paid to GETCO for connectivity. The TEL-D has been in operation for less than 3 years as on the date of effectiveness of MYT Regulations. The utility has completed only one-year of operation of Dahej SEZ. The Commission has obtained the O&M expenses (actual) incurred during the first half-year of FY 2011-12 which are of the order of Rs.0.69 crore. The Commission takes into consideration the actual O&M expenses incurred during the first half-year and determined the O&M expenses prorata at Rs. 1.38 crore for FY 2011-12. These O&M expenses are escalated at 5.72% in accordance with the Regulation 98.6 (C) of GERC (MYT) Regulations 2011 to arrive at the permissible O&M expenses for each year of the control period. The details are given in the table below:

Table 5.21: O&M cost approved for the control period 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
O&M expenses	1.38	1.46	1.54	1.63	1.72

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

5.7 Depreciation

The TEL-D has projected the depreciation at Rs. 60.86 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.22: Depreciation projected for the control period 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
Depreciation	4.45	10.06	12.66	15.51	18.18

Petitioner's submission

The petitioner has submitted that depreciation on the fixed assets has been computed considering the capitalization during each year of the control period FY 2011-12 to FY 2015-16 based on straight-line method as specified in the GERC (MYT) Regulations, 2011.



Commission's Analysis

The Commission has examined the computation of depreciation as detailed by the utility in Form D-2 submitted with the petition. The depreciation is calculated in accordance with the depreciation rates specified in Annexure I of GERC (MYT) Regulations, 2011. The addition of assets during the year is taken as per the proposed capitalisation of capital expenditure. The gross fixed assets have been worked out as per the capitalization approved in table 5.15. The Commission has calculated the depreciation on these gross fixed assets taking into consideration the weighted average rate of depreciation worked out by the utility for each year of the control period.

The Commission, accordingly, approves the depreciation as detailed in the table below as projected by the TEL-D for the control period.

Table 5.23: Depreciation approved for the control period 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
Gross block in beginning of the year	12.55	104.53	211.59	270.62	324.87
Additions during the year	91.98	107.06	59.03	54.25	49.11
Average rate of depreciation	4.86%	5.26%	5.25%	5.21%	5.20%
Depreciation for the year	2.85	8.31	12.65	15.51	18.17

5.8 Interest on debt

The TEL-D has projected the interest on debt at Rs. 82.62 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.24: Interest charges projected for the control period 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
Capitalization during the year	158.10	40.94	59.03	54.25	49.11
Less: Service Line Contribution (SLC) from Consumers	6.60	4.53	4.83	4.97	6.72
Balance Capitalization	151.50	36.41	54.20	49.28	42.39
Borrowings @ 70% of Balance Capitalization	106.05	25.49	37.94	34.50	29.67
Interest on Loan	7.48	14.94	17.54	20.36	22.30



Petitioner's submission

The petitioner has submitted that the utility has not availed any debt as of date but it has considered the normative debt of 70% of capitalisation after deducting consumer contribution towards service line charges for the purpose of calculating interest charges.

The TEL-D has further submitted that it has considered the repayment of loan equivalent to the depreciation in accordance with the Regulation 39 of the GERC (MYT) Regulations, 2011 and the interest rate is adopted at 12.75%. TEL-D has further submitted that the additional borrowings and interest charges have been considered on the basis of capitalisation during the year with debt : equity of 70: 30.

Commission's Analysis

The utility has provided the detailed calculation of interest in Form D-3 of the petition. The TEL-D has considered the debt during FY 2009-10 and FY 2010-11 at 70% of the capitalisation and thus the opening balance of loan as on 01/04/2011 is furnished as Rs. 7.89 crore. Taking this opening balance of normative loan and the proposed debt on the projected capitalisation for each year of the control period it has computed the interest charges. The normative debt adopted in table 5.14 is considered. TEL-D has adopted the interest rate of 12.75%. The current rate of interest is 10.5% to 11.00% and in the case of TPL-D Ahmedabad and other DISCOMs in Gujarat the interest rate of 10.5% is considered for the control period. The Commission therefore approves the rate of interest @ 10.5% for the control period. As regards, repayment the Regulation 39.3 of GERC (MYT) Regulations, 2011 specified that the repayment should be equal to depreciation allowed during the year. The interest charges as computed by the Commission are given in the table below:

Table 5.25: Approved interest and finance charges for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening loan	7.49	64.41	127.87	153.16	172.15
Loan additions during the year	59.77	71.77	37.94	34.50	29.67
Repayment during the year	2.85	8.31	12.65	15.51	18.17
Closing loan	64.41	127.87	153.16	172.15	183.65
Average loan	35.95	96.14	140.52	162.65	177.90
Average rate of interest	10.5%	10.5%	10.5%	10.5%	10.5%
Interest on loan	3.77	10.09	14.75	17.07	18.67



The Commission, accordingly, approves the interest on the normative loans as detailed in the above table.

5.9 Interest on security deposit

The TEL-D has projected the interest on security deposits at Rs. 13.49 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.26: Interest on security deposits projected for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Consumer Deposits	10.78	33.33	59.91	75.06	83.03
Interest on Security Deposits	0.58	1.32	2.80	4.05	4.74

Petitioner's submission

The petitioner has submitted that the security deposits have been projected considering the growth in revenue and the interest on security deposits has been computed at 6% on the average balance of security deposits for the year during the control period.

Commission's Analysis

The Commission has examined the projected security deposits and the calculation of interest thereon as per the details given in Form D-3 of Annexure II of the petition and they are found to be correct.

The Commission approves the interest on security deposits for the control period as detailed in the table below:

Table 5.27: Approved interest on security deposits for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Opening security deposits	8.66	10.78	33.32	59.90	75.05
Additions during the year	2.13	22.54	26.58	15.15	7.97
Closing of security deposits	10.79	33.32	59.90	75.05	83.02
Average security deposits	9.73	22.05	46.61	67.48	79.04
Rate of interest	6.00%	6.00%	6.00%	6.00%	6.00%
Interest on security deposits	0.58	1.32	2.80	4.05	4.74



5.10 Interest on working capital

The TEL-D has projected the interest on working capital at Rs. 1.83 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.28: Interest on working capital projected for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	0.48	0.65	0.87	1.19	1.44
Spares as 1 % of GFA	0.13	1.71	2.12	2.71	3.25
Receivables	10.78	33.33	59.91	75.06	83.03
Total	11.39	35.69	62.90	78.96	87.72
Less : Security Deposits	10.78	33.33	59.91	75.06	83.03
Working Capital Requirement	0.61	2.36	2.99	3.90	4.69
Interest on Working Capital	0.08	0.30	0.37	0.49	0.59

Petitioner's submission

The petitioner has submitted that it has computed the interest on working capital by applying the interest rate of 12.5% on the working capital requirement arrived at as stipulated in clause 41 of GERC (MYT) Regulations, 2011.

Commission's Analysis

It is observed that TEL-D has taken into consideration one (1) month receivables equivalent to one month proposed ARR instead of one (1) month of the expected revenue from sale of electricity at the prevailing tariffs under Regulation 41.4 (a) (iii) of (MYT) Regulations, 2011. The interest on working capital is claimed at 12.5%. The Regulation 41.4 (b) specified that interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the petition is filed. The applicable rate of interest as on 01/04/2011 is 13%.

The working capital and interest thereon are computed by the Commission as detailed in the table below:

Table 5.29: Approved interest on working capital for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses for one (1) month	0.12	0.13	0.13	0.14	0.14
1% of GFA for maintenance spares	0.13	1.05	2.12	2.71	3.25
Receivables for 1 month sales revenue at the prevailing tariffs	9.57	32.93	55.51	77.54	96.01
Less: Amount held as security deposit from consumers	9.73	22.05	46.61	67.48	79.04



Torrent Energy Limited
APR / Truing up for FY 2010-11, ARR for FY 2011-12 to 2015-16
and Retail Supply Tariff for FY 2011-12

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Total working capital requirement	0.09	12.06	11.15	12.91	20.36
Interest rate	13.00%	13.00%	13.00%	13.00%	13.00%
Interest on working capital	0.01	1.57	1.45	1.68	2.65

The Commission, accordingly, approves the interest on working capital as detailed in the table above.

5.11 Return on equity

The TEL-D has projected the return on equity at Rs. 46.04 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.30: Return on equity projected for the control period 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
Opening Equity and Reserves	3.38	48.83	59.75	76.02	90.80
Additions to Equity towards	45.45	10.92	16.27	14.78	12.72
Closing Balance	48.83	59.75	76.02	90.80	103.52
ROE @ 14% on the Avg. Balance	3.66	7.60	9.50	11.68	13.60

Petitioner's submission

The petitioner has submitted TEL-D has estimated the return on equity based on allowable equity and the regulated return on its licensed business. The return is calculated at 14% on average equity of opening and closing balance during the control period.

Commission's Analysis

The Commission has examined the claim of TEL-D for return on equity. The normative equity and the return thereon are claimed by TEL-D based on the proposed capitalisation and funding of the CAPEX. The Commission has approved the capitalisation and funding in Table 5.14 above. Based on the funding considered, the equity and the return on equity are worked out.

The Commission, accordingly, approves the return on equity as detailed in the table below:

Table 5.31: Return on equity approved for the control period 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
Opening Equity	3.38	28.99	59.75	76.01	90.79
Equity addition	25.61	30.76	16.26	14.78	12.72
Closing equity	28.99	59.75	76.01	90.79	103.51
Average equity	16.19	44.37	67.88	83.40	97.15
Rate of return	14.00%	14.00%	14.00%	14.00%	14.00%
Return on equity	2.27	6.21	9.50	11.68	13.60



5.12 Income Tax

The TEL-D has projected the income tax at Rs. 11.51 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.32: Income tax projected for the control period

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Tax on Income	0.91	1.90	2.38	2.92	3.40

Petitioner's submission

The petitioner has submitted that tax on income is not applicable to TEL-D as per the SEZ Act, 2005. However MAT will be applicable on SEZ developers and unit holders as per the Union Budget for FY 2011-12. The MAT rate of 18.50% after considering the surcharge and Education Cess works out to Rs. 20.007%.

Commission's Analysis

The utility has claimed the income tax on ROE grossed up with MAT. The Regulation 42.1 of GERC (MYT) Regulations, 2011 specified that the Commission shall provisionally approve income tax for each year of the control period, if any, based on the actual income tax as per latest audited accounts available for the applicant, subject to prudence check. As per the audited accounts TEL-D has not paid any income tax for FY 2010-11. The Commission, therefore, does not consider any income tax projection for the control period. The other SEZ i.e MPSEZ has not claimed any income tax for the control period. The Commission will however take into consideration the actual income tax paid 'if any' at the time of truing up under Regulation 22 of GERC (MYT) Regulations, 2011.

5.13 Bad debts

The TEL-D has projected the provision for bad debts at Rs. 3.15 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.33: Provision for bad debts projected for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Provision for Bad Debts	0.13	0.40	0.72	0.90	1.00



Petitioner's submission

The petitioner has submitted that bad debts have been estimated as 0.1% of the total estimated aggregate revenue requirement for each year of the control period. TEL-D has also submitted that bad debts to be allowed to the extent of actual bad debts written off in accordance with the provisions of the Regulation.

Commission's Analysis

The TEL-D has explained with reference to a query vide TEL letter dated October 13, 2011 that ARR represents the summation of expenses which the petitioner will recover as "Revenue" from its consumers upon its approval by the Commission. It is further submitted that the present petition provides the revenue from sale of electricity at existing and proposed tariff for FY 2011-12 as per the regulations and that TEL has considered the receivables equivalent to one month of proposed ARR and requested to consider the calculation of receivables based on the rationale explained by the utility for timely recovery of its legitimate expenses.

The utility has asked for a provision of 0.1% of the total estimated aggregate revenue requirement in the ARR petition. But in the additional submission vide letter dated October 13, 2011 it is mentioned that it has considered receivables equivalent to one month of proposed ARR. The explanation provided by the utility is not consistent with the submission made in the ARR petition.

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

The TEL-D is a new distribution licensee and is in the process of connecting consumers, mostly committed industrial consumers. Writing off the arrears does not arise at this development stage. The Commission does not consider any provision for bad debts. TEL-D may claim the actual bad debts written off, if any at the time of truing up under Regulation 98.8 of GERC (MYT) Regulations, 2011.

5.14 Contingency Reserve

The TEL-D has claimed the contingency reserve at Rs. 6.75 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.34: Contingency reserve projected for the control period 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
Contingency Reserve	0.85	1.06	1.35	1.62	1.87

Petitioner's submission

The TEL-D has submitted that it has considered the contingency reserve as provided in the MYT Regulations for 2nd control period at the rate of 0.5% of original cost of fixed assets.

Commission's Analysis

The contingency reserve claimed by TEL-D is in accordance with the Regulation 85.6 of the GERC (MYT) Regulations, 2011.

The Commission, accordingly, approves the contingency reserve for the control period as claimed by TEL-D and as detailed in the table below:

Table 5.35: Contingency reserve approved for the control period 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
Contingency Reserve	0.85	1.06	1.35	1.62	1.87

5.15 Non-tariff income

The TEL-D has claimed the non-tariff income at Rs. 1.04 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 5.36: Non-tariff income projected for the control period 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	0.19	0.21	0.20	0.22	0.22

Petitioner's submission

The petitioner has submitted that it has endeavored to estimate the non-tariff income for the MYT 2nd control period on account of meter rent, sale of scrap, DPC (delayed payment charge) recovery, bad debt recovery, various registration charges etc. It is also mentioned that SEZ being the new area and having few HT consumers, the likely income under the specified head would be minimal.



Commission's Analysis

The Commission approves the non-tariff income as projected by TEL-D as it is only the second year of operation and there is no previous data to assess the non-tariff income. The approved non-tariff income is given in the table below:

Table 5.37: Non-tariff income approved for the control period 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	0.19	0.21	0.20	0.22	0.22

5.16 Aggregate Revenue Requirement

The projected ARR for the control period is summarized in the table below:

Table 5.38: Aggregate Revenue requirement projected for the control period FY 2011-12 to FY 2015-16

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Power Purchase Expenses	105.70	354.70	661.27	829.15	913.53
O&M Expenses					
Employee Expenses	1.92	2.96	4.37	6.86	8.79
R& M Expenses	1.65	1.93	2.58	3.19	3.75
A&G Expenses	2.17	2.95	3.53	4.22	4.78
Depreciation	4.45	10.06	12.66	15.51	18.18
Interest on Long Term Loans	7.48	14.94	17.54	20.36	22.30
Interest on Security Deposit	0.58	1.32	2.80	4.05	4.74
Interest on Working Capital	0.08	0.30	0.37	0.49	0.59
Provision for bad debts	0.13	0.40	0.72	0.90	1.00
Contingency Reserve	0.85	1.06	1.35	1.62	1.87
Income Tax	0.91	1.90	2.38	2.92	3.40
Revenue Expenditure incl. Power Purchase Expense	125.92	392.52	709.57	889.27	982.93
Return on Equity @ 14%	3.66	7.60	9.50	11.68	13.60
Less: Non Tariff Income	0.19	0.21	0.20	0.22	0.22
ARR	129.39	399.91	718.87	900.73	996.31

Commission's Analysis

The Commission has analysed the expenses projected by TEL-D in the previous paragraphs and approved the ARR for the control period FY 2011-12 to FY 2015-16 as summarized in the table below:



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Table 5.39: Aggregate Revenue requirement approved for the control period FY 2011-12 to FY 2015-16

Particulars	(Rs. crore)				
	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Power Purchase Expenses	90.92	334.48	602.61	823.60	907.28
O&M Expenses	1.38	1.46	1.54	1.63	1.72
Depreciation	2.85	8.31	12.65	15.51	18.17
Interest on Long Term Loans	3.77	10.09	14.75	17.07	18.67
Interest on Security Deposit	0.58	1.32	2.80	4.05	4.74
Interest on Working Capital	0.01	1.57	1.45	1.68	2.65
Provision for bad debts	-	-	-	-	-
Contingency Reserve	0.85	1.06	1.35	1.62	1.87
Income Tax	-	-	-	-	-
Revenue Expenditure incl. Power Purchase Expense	100.36	358.29	637.15	865.16	955.1
Return on Equity @ 14%	2.27	6.21	9.50	11.68	13.60
Less: Non Tariff Income	0.19	0.21	0.20	0.22	0.22
ARR	102.44	364.29	646.45	876.62	968.48

5.17 Revenue from sale of power

The TEL-D has projected the revenue from sale of power at the existing tariff of DGVCL at Rs. 114.79 crore which includes FPPPA of 62 Ps./kWh for FY 2011-12 as detailed in the table below:

Table 5.40: Projected revenue from sale of power with existing tariff for FY 2011-12

Consumer category	Sales (MU)	Revenue (Rs. crore)	Average tariff (Rs./kWh)
LTP III	0.27	0.13	4.91
LFD II	0.03	0.02	5.56
HTMD – I Industry	137.86	72.95	5.29
HTMD – II Non-industrial	5.27	2.60	4.93
HTMD- III Temporary	43.36	38.39	8.86
Temporary	0.85	0.59	6.96
Street lighting	0.28	0.11	3.97
Total	187.92	114.79	6.11

Commission's Analysis

TEL-D has not computed the revenue from sale of power for the other years of the control period. The Commission has computed the revenue from sale of power with existing tariff for each year of the control period based on the sales approved for the



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and Retail Supply Tariff for FY 2011-12

control period in table 5.8 and applying the tariff for each category as per the average tariff rates for FY 2010-11. The particulars are given in the table below:

Table 5.41: Approved revenue from sale of power for the control period FY 2011-12 to FY 2015-16

Sl. No.	Category	Av. Tariff (Paise / Unit) *	Units sold / revenue									
			2011-12		2012-13		2013-14		2014-15		2015-16	
			MU	Rs. (crore)	MU	Rs. (crore)	MU	Rs. (crore)	MU	Rs. (crore)	MU	Rs. (crore)
1	Residential		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Commercial Demand	5.96	0.03	0.02	0.03	0.02	0.04	0.02	0.23	0.14	0.04	0.02
3	Commercial Non Demand		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	Industrial Demand	4.91	0.27	0.13	0.41	0.20	1.66	0.82	5.53	2.72	15.22	7.47
5	Industrial Non Demand		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	HTMD-I	5.29	137.86	72.93	599.80	317.29	1227.39	649.29	1710.52	904.87	2101.65	1111.77
7	HTMD-II	4.93	5.27	2.60	6.13	3.02	20.64	10.18	41.94	20.68	65.59	32.34
8	HTMD-III (Temporary)	8.86	43.36	38.42	82.39	73.00	3.85	3.41	0.00	0.00	0.00	0.00
9	Street Light	3.97	0.28	0.11	0.30	0.12	0.80	0.32	0.80	0.32	0.80	0.32
10	LT (Temporary)	6.96	0.85	0.59	2.23	1.55	2.95	2.05	2.45	1.71	0.30	0.21
	Total		187.92	114.80	691.29	395.20	1257.33	666.09	1761.47	930.42	2183.60	1152.13

* Average rates includes the existing FPPPA at Rs. 0.62 per kWh

5.18 Gap for FY 2011-12

The TEL-D has projected a revenue gap of Rs. 14.60 crore for FY 2011-12 based on the projected ARR of Rs. 129.39 crore and the projected revenue of Rs. 114.79 crore at the existing tariff including FPPPA of 62 Paise / kWh.

The revenue gap projected by TEL-D and the approved gap for FY 2011-12 are as given in the table below:

Table 5.42: Revenue gap for FY 2011-12

Particulars	(Rs. crore)	
	Projected	Approved
Aggregate revenue requirement	129.39	102.44
Less: Revenue from sale of power @ existing tariff (DGVCL Tariff) including FPPPA @ Rs. 0.62 / Unit	114.79	114.80
Gap / (Surplus) for FY 2011-12	14.60	(12.36)

It could be seen from the above table that there is a revenue surplus to the extent of Rs.12.36 crore for FY 2011-12.



Commission's Analysis and Decision

The TEL has requested the Commission to approve the proposed tariff without any modification. The TPL has also requested the Commission to approve the revenue gap of Rs.15.19 crore for FY 2010-11 along with carry over cost of Rs.1.67 crore and totaling to Rs.16.86 crore and allow the recovery of the gap of FY 2010-11 along with carryover cost.

Based on the analysis of the Commission the revenue requirement and the gap for the FY 2011-12 including the gap for FY 2010-11 would be as under:

Particulars	Rs. crore
Revenue (gap) / surplus for FY 2011-12	12.36
Revenue (gap) for FY 2010-11	(3.71)
Net surplus	8.65

The license area of TEL has two licensees, viz. DGVCL and TEL. In the light of provisions of Section 62 of the Electricity Act, 2003, and in order to promote competition among distribution licensees, the Commission decides to fix only maximum ceiling of tariff for retail sale of electricity. Consequently, the Commission decides that the DGVCL tariff approved in the Commission's Tariff Order dated 6th September, 2011, will be the maximum ceiling for TEL. For this purpose the approved tariff schedule is enclosed with this order.

5.19 Wheeling and Retail Supply Business

5.19.1 Allocation matrix for distribution wheeling and retail supply business

The Commission has stipulated in Clause 88.1 of of MYT Regulations, 2011 that in case the Distribution Licensee is not able to submit audited and certified separate accounts for Distribution wires and supply business, the allocation matrix as provided under Regulation 81 shall be applicable. The same is reproduced herein below:

Table 5.43: Allocation matrix for distribution wheeling and retail supply business

Particulars	Wires Business (%)	Retail Supply Business (%)	Total
Power Purchase Expenses	0%	100%	100%
Standby Charges	0%	100%	100%
Employee Expense	60%	40%	100%
Admn. & General Expense	50%	50%	100%
Repair & Maintenance Expense	90%	10%	100%



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Particulars	Wires Business (%)	Retail Supply Business (%)	Total
Depreciation	90%	10%	100%
Interest on Long Term Loan Capital	90%	10%	100%
Interest on Working Capital and Consumer Security Deposit	10%	90%	100%
Bad Debts Written off	0%	100%	100%
Income Tax	90%	10%	100%
Transmission Charges Intra-State	0%	100%	100%
Contribution to contingency reserves	100%	0%	100%
Return in Equity	90%	10%	100%
Non-Tariff Income	10%	90%	100%

5.19.2 Segregation of wheeling and retail supply

Based on the above allocation matrix the total ARR of TEL-D has been segregated into ARR for Wheeling and Supply business. The ARR for both the business is tabulated below:

Table 5.44: ARR for distribution wheeling business

Particulars	(Rs. crore)
	FY 2011-12
Power Purchase Expenditure	0.00
O&M Expenses	0.92
Depreciation	2.57
Interest on Term Loan	3.39
Interest on Working capital & Security Deposit	0.06
Provision for bad debts	-
Contingency Reserve	0.85
Income Tax	0.00
Total Revenue Expenditure including power purchase Expense	7.79
Return on Equity Capital	2.04
Less: Non Tariff Income	0.02
Aggregate Revenue Requirement	9.81

Table 5.45: ARR for retail supply business

Particulars	(Rs. crore)
	FY 2011-12
Power Purchase Expenses	90.92
O&M Expenses	0.46
Depreciation	0.28
Interest on Term Loan	0.38
Interest on Working capital & Security Deposit	0.53
Provision for bad debts	-
Contingency Reserve	0.00
Income Tax	0.00
Total Revenue Expenditure including power purchase Expense	92.57
Return on Equity Capital	0.23
Less: Non Tariff Income	0.17
Aggregate Revenue Requirement	92.63



5.19.3 Wheeling charges

The network of TEL is still developing and TEL 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. TEL 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 5.46: Wheeling charges for the entire network

Sl. No.	Particulars	Units	Amount
1	Total distribution costs (wheeling cost)	Rs. Crore	9.81
2	Energy input at Distribution Level	MU	192.91
3	Wheeling charges	Rs./kWh	0.51

5.20 Cross subsidy surcharge

The cross subsidy surcharge for TEL-D 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

$$S = 5.29 - [4.35(1+3/100) + 0.51]$$

$$= 5.29 - 4.99 = 0.30 \text{ (Rs./kWh)}$$

6. Fuel and Power Purchase Price Adjustment (FPPPA) Charges

6.0 Fuel and Power Purchase Price Adjustment (FPPPA)

The TEL has submitted that it would be purchasing power from GUVNL under short-term arrangement upto January 2014 and later from its own generation – DGEN.

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

- Demand fluctuation
- Forced outage of various generation units
- Variation in transmission charges and transmission losses
- Variation in fuel price, fuel transportation and / or handling charges and other charges
- Power purchase mix variation
- Other, if any

The TEL has furnished a formula for recovery of amounts eligible for recovery to adjust for the changes in the power purchase costs in the retail tariff of various category of consumers.

Design Principles

The Fuel Price and Power Purchase Adjustment (FPPPA) formula has been derived considering the following issues:

1. Difference between actual variable cost and approved variable cost
2. Variation in quantity in power purchase as compared to the approved quantities on account of factors beyond the control of the petitioner;
3. Actual fixed cost for the approved sources of power purchase;
4. Change in working capital costs on account of change in power procurement costs;



Formula

The amount eligible for recovery through the Power Purchase Adjustment formula is for the price and mix variations 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’:

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

Where:

Fi	The FPPPA per kWh (Rs./kWh)
Pi	The difference between the weighted average variable cost (Rs./kWh), at approved parameters wherever applicable, of power procured per kWh in quarter i and the weighted average variable cost of power procurement adopted in tariff order. The weighted average tariff referred above is exclusive of UI charges. In case of single part tariff, the entire cost is to be considered as variable cost in above calculation.
Ei	Total energy procured during the quarter in MUs
FCi	Difference in actual total fixed charges (Rs. Lacs) of power procured from the base value adopted in the tariff order on pro-rata basis for that quarter.
RECi	Actual cost incurred (Rs. Lacs) for purchasing Renewable Energy Certificate during the quarter for the compliance of Renewable Purchase Obligation
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:



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

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

Where,

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

Where,

<i>F_{OG}</i>	Adjustment on account of variations in delivered cost of fuel at GEB's thermal power stations Rs. in millions
<i>n</i>	1 to k, the thermal power stations in GEB. Details at Table-8.
<i>OGD_A</i>	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.
<i>H_B</i>	is the base station heat rate in K.Cal./ Kwh calculated on the net output using permitted auxiliary consumption (Table -8)
<i>Fuel/C_A</i>	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. @
<i>Fuel/C_B</i>	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.

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

Where,

<i>PPP₁</i>	Adjustment on account of variable cost of power purchased in Rs. Millions
<i>m</i>	1 to k, the sources from which power is purchased
<i>VC_A</i>	is the variable cost per unit of delivered energy, computed based on the principles laid down in the power purchase agreements in Rs. / KWh
<i>VC_B</i>	is the base variable cost per unit of delivered energy from each source in Rs./kWh
<i>Q_A</i>	is the actual level of power purchases from each source in million units.

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



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Where,

PPP₂	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

and

$$\mathbf{S.E. (in MU) = [(Total Sales in MU + Excess T \& D loss in MU)]}$$

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=

$$\{(Net Generation in MU + Power Purchase in MU - Total sales in MU)\} - \\ \{(Net Generation in MU + Power Purchase in MU) \times (\%T\& D loss Norm)\}$$

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.4.35 / kWh, for the year 2011-12. TEL may claim any variation in the power purchase price as per formula approved above.



7. Directives

7.1 General

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

7.2 Directives:

Directive 1: Assessment of Distribution losses

TEL has projected distribution loss of 3.0% during FY 2011-12 gradually increasing it to 3.80% by FY 2015-16. The Commission has approved the loss level of 3.0% for FY 2011-12 as it is the initial year and as TEL has no means of measuring the loss.

TEL is directed to conduct energy audit by providing meters on all feeders and transformers to establish loss level in the system. Energy Audit shall be taken up immediately and the actual loss level shall be presented in the next tariff petition.

Directive 2: Map of Dahej Special Economic Zone (DSEZ)

TEL is directed to furnish a map of the Dahej SEZ which is its licensed area of power supply. It should mark the interface points of power supply with existing and proposed network voltage-wise and the areas where the industries are likely to come up etc., for information of the Commission.

Directive 3: Separate Accounts for TEL

TEL-D is a deemed licensee and is responsible for distribution of electricity in Dahez special economic zone (DSEZ). TEL is directed to maintain separate accounts for its distribution business which is a regulated business. Since TEL is also having generation of its own supplying power to its distribution business, it shall also maintain separate accounts for Generation Business. The accounts shall be got audited by Statutory Auditor and submitted to the Commission along with the ARR and Tariff Petition for FY 2012-13 onwards.

Directive 4: Voltage wise details of the distribution network

TEL-D is directed to furnish the details of lines and substations in its network voltage wise along with length of line under each voltage, details of power and distribution transformer etc.



COMMISSION'S ORDER

The Commission approves the aggregate revenue requirement (ARR) for Torrent Energy Limited (TEL) for FY 2011-12 as shown in the following Table:

(Rs. crore)

Sr. No.	Particulars	Approved for FY 2011-12
1.	Power purchase cost	90.92
2.	O&M Expenses	1.38
3.	Depreciation	2.85
4.	Interest on long term loans	3.77
5.	Interest on Security Deposit	0.58
6.	Interest on Working capital	0.01
7.	Income Tax	0.00
8.	Contingency reserve	0.85
9.	Revenue expenditure	100.36
10.	Return on equity @ 14%	2.27
11.	Less; Non-tariff income	0.19
12.	ARR	102.44

The approved ceiling for retail supply tariff will be in accordance with the Tariff schedule annexed to this order.

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

Place : Ahmedabad

Date : 12.12.2011



ANNEXURE: TARIFF SCHEDULE FOR FY 2011-12

TARIFF SCHEDULE

**CEILING TARIFF FOR SUPPLY OF ELECTRICITY AT LOW TENSION, HIGH TENSION
AND EXTRA HIGH TENSION**

GENERAL

1. The tariff figures indicated in this tariff schedule are the tariff rates payable by the consumers of unbundled Distribution Licensees of the erstwhile GEB viz. UGVCL, DGVCL, MGVCL and PGVCL.
2. These tariffs are exclusive of Electricity Duty, tax on sale of electricity, taxes and other charges levied by the Government or other competent authorities from time to time which are payable by the consumers, in addition to the charges levied as per the tariff.
3. All these tariffs for power supply are applicable to only one point of supply.
4. The charges specified are on monthly basis. Distribution Licensee may decide the period of billing and adjust the tariff rate accordingly.
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. Except in cases where the supply is used for the purpose for which the Distribution Licensee has permitted lower tariff, 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. Meter charges shall be applicable as prescribed under 'GERC (Licensee's Power to Recover Expenditure incurred in providing supply and other Miscellaneous Charges) Regulations, 2005 as in force from time to time.
8. The various provisions of the GERC (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulations will continue to apply.
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 Connected Load for the purpose of billing will be taken as the maximum load connected during the billing period.
11. 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.

12. Contract Demand shall mean the maximum kW for the supply of which licensee undertakes to provide facilities to the consumer from time to time.
13. 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.
14. 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.
15. 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 licensee shall be entitled to take any other action deemed necessary and authorized under the Act.
16. Delayed payment charges for all consumers:

No delayed payment charges shall be levied if the bill is paid within ten days from the date of billing (excluding date of billing).

Delayed payment charges will be levied at the rate of 15% per annum in case of all consumers except Agricultural category for the period from the due date till the date of payment if the bill is paid after due date. Delayed payment charges will be levied at the rate of 12% per annum for the consumer governed under Rate AG from the due date till the date of payment if the bill is paid after due date.

For Government dues, the delayed payment charges will be levied at the rate provided under the relevant Electricity Duty Act.



PART - I

SCHEDULE OF CEILING TARIFF FOR SUPPLY OF ELECTRICITY

AT LOW AND MEDIUM VOLTAGE

1.0 Rate: RGP

This tariff is applicable to all services in the residential premises which are not covered under 'Rate: RGP (Rural)' Category.

Single-phase supply- Aggregate load up to 6kW

Three-phase supply- Aggregate load above 6kW

1.1 Fixed Charges/Month:

Range of Connected Load: (Other than BPL Consumers)

(a)	Up to and including 2 kW	Rs. 5/- per month
(b)	Above 2 to 4 kW	Rs. 15/- per month
(c)	Above 4 to 6 kW	Rs. 30/- per month
(d)	Above 6 kW	Rs. 45/- per month

For BPL Household Consumers:

Fixed charges	Rs. 5/- per month
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PLUS

1.2 Energy Charges: For the total monthly consumption: (Other than BPL consumers)

(a)	First 50 units	295 Paise per Unit
(b)	Next 50 units	325 Paise per Unit
(c)	Next 150 units	390 Paise per Unit
(d)	Above 250 units	480 Paise per Unit

1.3 Energy charges: For the total monthly consumption – For the consumer below poverty line (BPL)**

(a)	First 30 units	150 Paise per Unit
(c)	For remaining units	Rate as per RGP



**The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the sub-division office of the Distribution Licensee. The concessional tariff is only for 30 units per month.

1.4 Minimum bill (excluding meter charges)

Payment of fixed charges as specified in 1.1 above.

2.0 Rate: RGP (Rural)

This tariff is applicable to all services for residential premises located in areas within Gram Panchayat as defined in the Gujarat Panchayats Act.

However, this is not applicable to villages which are located within the geographical jurisdiction of Urban Development Authority.

Single-phase supply- Aggregate load upto 6kW

Three-phase supply- Aggregate load above 6kW

2.1 Fixed Charges/Month:

Range of Connected Load: (Other than BPL Consumers)

(a)	Upto and including 2 kW	Rs. 5/- per month
(b)	Above 2 to 4 kW	Rs. 15/- per month
(c)	Above 4 to 6 kW	Rs. 30/- per month
(d)	Above 6 kW	Rs. 45/- per month

For BPL Household Consumers:

Fixed charges	Rs. 5/- per month
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PLUS

2.2 Energy Charges: For the total monthly consumption: (Other than BPL consumers)

(a)	First 50 units	255 Paise per Unit
(b)	Next 50 units	285 Paise per Unit
(c)	Next 150 units	350 Paise per Unit
(d)	Above 250 units	450 Paise per Unit



2.3 Energy charges: For the total monthly consumption – For the consumer below poverty line (BPL) **

(a)	First 30 units	150 Paise per Unit
(c)	For remaining units	Rate as per RGP (Rural)

**The consumer who wants to avail the benefit of the above tariff has to produce a copy of the Card issued by the authority concerned at the sub-division office of the Distribution Licensee. The concessional tariff is only for 30 units per month.

2.4 Minimum bill (excluding meter charges):

Payment of fixed charges as specified in 2.1 above.

Note: If the part of the residential premises is used for non-residential (commercial) purposes by the consumers located within 'Gram Panchayat' as defined in Gujarat Panchayat Act, entire consumption will be charged under this tariff.

3.0 Rate: GLP

This tariff is applicable to the educational institutes and other institutions registered with the Charity Commissioner and research and development laboratories.

(a)	Fixed charges	Rs. 45/- per month
(b)	Energy charges	345 Paise per Unit

4.0 Rate: Non-RGP

This tariff is applicable to the services for the premises those are not covered in any other tariff categories and having aggregate load upto and including 40kW.

4.1 Fixed charges per month:

(i) First 10 kW of connected load	Rs. 30/- per kW
(ii) For next 30 kW of connected load	Rs. 55/- per kW

PLUS



4.2 Energy charges:

(a)	For installation having contracted load upto and including 10kW: for entire consumption during the month	390 Paise per Unit
(b)	For installation having contracted load exceeding 10kW: for entire consumption during the month	420 Paise per Unit

4.3 Minimum Bill

Minimum bill per installation per month for consumers other than Seasonal Consumers:

Rs. 140 per kW

4.4 Minimum Bill Per Installation for Seasonal Consumers

- (a) "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice candy machines, ginning and pressing factory, oil mill, rice mill, huller, salt industry, sugar factory, khandsari, cold storage plants (including such plants in fisheries industry), tapioca industries manufacturing starch, etc.
- (b) Any consumer, who desires to be billed for the minimum charges on annual basis shall intimate to that effect in writing in advance about the off-season period during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The total period of the off-season so declared and observed shall be not less than three calendar months in a calendar year.
- (c) The total minimum amount under the head "Fixed and Energy Charges" payable by the seasonal consumer satisfying the eligibility criteria under sub-clause (a) above and complying with the provision stipulated under sub-clause (b) above shall be Rs. 1600/- per annum per kW of the contracted load.
- (d) The units consumed during the off-season period shall be charged for at a flat rate of 435 Paise per unit.
- (e) The electricity bills related to the off-season period shall not be taken into account towards the amount payable against the annual minimum bill. The



amount paid by the consumer towards the electricity bills related to the seasonal period only under the heads “Fixed Charges” and “Energy Charges”, shall be taken into account while determining the amount of short-fall payable towards the annual minimum bill as specified under sub-clause (c) above.

5.0 Rate: LTMD

This tariff is applicable to the services for the premises those are not covered in any other tariff categories and having aggregate load above 40kW and upto 100kW.

This tariff shall also be applicable to consumer covered in category- ‘Rate: Non-RGP’ so opts to be charged in place of ‘Rate: Non-RGP’ tariff.

5.1 Fixed charges:

	For billing demand up to the contract demand	
(a)	(i) For first 40 kW of billing demand	Rs. 65/- per kW per month
	(ii) Next 20 kW of billing demand	Rs. 100/- per kW per month
	(iii) Above 60 kW of billing demand	Rs. 165/- per kW per month
(b)	For billing demand in excess of the contract demand	Rs. 210/- per kW

PLUS

5.2 Energy charges:

For the entire consumption during the month	425 Paise per Unit
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PLUS

5.3 Reactive Energy Charges:

For all the reactive units (KVARH) drawn during the month	10 paise per KVARH
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5.4 Billing Demand

The billing demand shall be highest of the following, rounded to the next full kW:

- (a) Eighty-five percent of the contract demand
- (b) Actual maximum demand registered during the month
- (c) 15 kW

5.5 Minimum Bill

Payment of demand charges every month based on the billing demand.

5.6 Seasonal Consumers taking LTMD Supply:

5.6.1 The expression, "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice-candy machines, ginning and pressing factory, oil mill, rice mill, salt industry, sugar factory, khandsari, cold storage plants (including such plants in fishery industry), tapioca industries manufacturing starch, pumping load or irrigation, white coal manufacturers etc.

5.6.2 A consumer, who desires to be billed for minimum charges on annual basis, shall intimate in writing in advance about the off-season during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The off-season period at any time shall be a full calendar month/months. The total period of off-season so declared and observed shall be not less than three calendar months in a calendar year.

5.6.3 The total minimum amount under the head "Demand and Energy Charges" payable by a seasonal consumer satisfying the eligibility criteria under sub clause 5.6.1 above and complying with provisions stipulated under sub clause 5.6.2 above shall be Rs. 2700/- per annum per kW of the billing demand.

5.6.4 The billing demand shall be the highest of the following:

- (a) The highest of the actual maximum demand registered during the calendar year.
- (b) Eighty-five percent of the arithmetic average of contract demand during the



year.

(c) 15 kW.

5.6.5 Units consumed during the off-season period shall be charged for at the flat rate of 435 Paise per unit.

6.0 Rate: Non-RGP Night

This tariff is applicable for aggregate load upto 40kW and using electricity **exclusively during night hours** from 10.00 PM to 06.00 AM next day. (The supply hours shall be regulated through time switch to be provided by the consumer at his cost.)

6.1 Fixed Charges per month:

Fixed charges specified in Rate Non-RGP above.

PLUS

6.2 Energy Charges:

For entire consumption during the month	220 Paise per Unit
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NOTE:

- 1. 10% of total units consumed and 15% of the contract load can be availed beyond the prescribed hours.*
- 2. This tariff shall be applicable if the consumer so opts to be charged in place of Non-RGP tariff by using electricity exclusively during night hours as above.*
- 3. The option can be exercised to switch over from Non-RGP tariff to Non-RGP Night tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.*
- 4. In case the consumer is not fulfilling the conditions of this tariff category, then such consumer for the relevant billing period will be billed under tariff category Non-RGP.*



7.0 Rate: LTMD- Night

This tariff is applicable for aggregate load above 40kW and using electricity **exclusively during night hours** from 10.00 PM to 06.00 AM next day. (The supply hours shall be regulated through time switch to be provided by the consumer at his cost.)

7.1 Fixed Charges per month:

Fixed charges specified in Rate LTMD above.

PLUS

7.2 Energy Charges:

For entire consumption during the month	220	Paise per Unit
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7.3 Reactive Energy Charges:

For all reactive units (KVARH) drawn during the month	10 Paise per KVARH
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NOTE:

- 1. 10% of total units consumed and 15% of the contract load can be availed beyond the prescribed hours.*
- 2. This tariff shall be applicable if the consumer so opts to be charged in place of LTMD tariff by using electricity exclusively during night hours as above.*
- 3. The option can be exercised to switch over from LTMD tariff to LTMD- Night tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.*
- 4. In case the consumer is not fulfilling the conditions of this tariff category, then such consumer for the relevant billing period will be billed under tariff category LTMD.*

8.0 Rate: LTP- Lift Irrigation

Applicable for supply of electricity to Low Tension Agricultural consumers contracting load up to 125 HP requiring continuous (**twenty-four** hours) power supply for lifting water from surface water sources such as canal, river, & dam and supplying water directly to the fields



Torrent Energy Limited
APR / Truing up for FY 2010-11, ARR for FY 2011-12 to 2015-16
and Retail Supply Tariff for FY 2011-12

of farmers for agricultural irrigation only.

(a)	Fixed charges per month	Rs. 25/- per HP
PLUS		
(b)	Energy charges For entire consumption during the month	160 Paise per Unit

9.0 Rate: WWSP

This tariff shall be applicable to services used for water works and sewerage pumping purposes.

9.1 Type I – Water works and sewerage pumps operated by other than local authority:

(a)	Fixed charges per month	Rs.15/- per HP
PLUS		
(b)	Energy charges per month: For entire consumption during the month	385 Paise per Unit

9.2 Type II – Water works and sewerage pumps operated by local authority such as Municipal Corporation. Gujarat Water Supply & Sewerage Board located outside Gram Panchayat Area will also attract this tariff:

(a)	Fixed charges per month	Rs.9 per HP
PLUS		
(b)	Energy charges per month: For entire consumption during the month	365 Paise per Unit

9.3 Type III – Water works and sewerage pumps operated by Municipalities/Nagarpalikas and Gram Panchayat or Gujarat Water Supply & Sewerage Board for its installations located in Gram Panchayats:



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and Retail Supply Tariff for FY 2011-12

Energy charges per month: For entire consumption during the month	275 Paise/Unit
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9.4 Time of Use Discount:

Applicable to all the water works consumers having connected load of 50 HP and above for the Energy consumption during the Off-Peak Load Hours of the Day.

For energy consumption during the off-peak period, viz., 1100 Hrs to 1800 Hrs.	30 Paise per Unit
For energy consumption during night hours, viz., 2200 Hrs to 0600 Hrs. next day	75 Paise per Unit

10.0 Rate: AG

This tariff is applicable to services used for irrigation purposes only excluding installations covered under LTP- Lift Irrigation category.

10.1 The rates for following group are as under:

10.1.1 HP Based Tariff:

For entire contracted load	Rs.175/HP/month
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ALTERNATIVELY

10.1.2 Metered Tariff:

Fixed Charges	Rs. 10 per HP per month
Energy Charges:For entire consumption	50 Paise per Unit per month

10.1.3 Tatkal Scheme:

Fixed Charges	Rs. 10 per HP per month
Energy Charges: For entire consumption	70 Paise per Unit per month



NOTE: The consumers under Tatkal Scheme shall be eligible for normal metered tariff as above, on completion of five years period from the date of commencement of supply.

- 10.2 No machinery other than pump water for irrigation (and a single bulb or CFL up to 40 watts) will be permitted under this tariff. Any other machinery connected in the installation governed under this tariff shall be charged separately at appropriate tariff for which consumers shall have to take separate connection.
- 10.3 Agricultural consumers who desire to supply water to brick manufacturing units shall have to pay Rs. 100/HP per annum subject to minimum of Rs. 2000/- per year for each brick Mfg. Unit to which water is supplied in addition to existing rate of HP based / metered agricultural tariff.
- 10.4 Such Agricultural consumers shall have to pay the above charges for a full financial year irrespective of whether they supply water to the brick manufacturing unit for full or part of the Financial Year.

Agricultural consumers shall have to declare their intension for supply of the water to such brick manufacturing units in advance and pay charges accordingly before commencement of the financial year (i.e. in March every year).

11.0 Rate: SL

11.1 Tariff for Street Light for Local Authorities and Industrial Estates:

This tariff includes the provision of maintenance, operation and control of the street lighting system.

11.1.1 Energy Charges:

For all the units consumed during the month:	360 Paise per Unit
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11.1.2 Optional kVAh Charges:

For all the kVAh units consumed during the month:	270 Paise per Unit
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11.1.3 Renewal and Replacements of Lamps:

The consumer shall arrange for renewal and replacement of lamp at his cost by person



authorised by him in this behalf under Rule-3 of the Indian Electricity Rules, 1956 / Rules issued by CEA under the Electricity Act, 2003.

11.2 Tariff for power supply for street lighting purposes to consumers other than the local authorities and industrial estates:

11.2.1 Fixed Charges:

Rs. 20 per kW per month

11.2.2 Energy charges:

For all units consumed during the month	360 Paise per kWh
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11.2.3 Renewal and Replacement of Lamps:

The consumer shall arrange for renewal and replacement of lamp at his cost by person authorised by him in this behalf under Rule-3 of the Indian Electricity Rules, 1956 / Rules issued by CEA under the Electricity Act, 2003.

11.2.4 Maintenance other than Replacement of Lamps:

Maintenance of the street lighting system shall be carried out by Distribution Licensee.

12.0 Rate: TMP

This tariff is applicable to services of electricity supply for temporary period at the low voltage.

12.1 FIXED CHARGE

Fixed Charge per Installation	Rs.14 per kW per Day
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12.2 ENERGY CHARGE

A flat rate of	425 Paise per Unit
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Note: Payment of bills is to be made within seven days from the date of issue of the bill. Supply would be disconnected for non-payment of dues on 24 hours notice.



PART-II

**CEILING TARIFFS FOR SUPPLY OF ELECTRICITY AT HIGH TENSION
(3.3 KV AND ABOVE, 3-PHASE 50 C/S), AND EXTRA HIGH TENSION**

The following tariffs are available for supply at high tension for large power services for contract demand not less than 100 kVA

13.0 Rate: HTP-I

This tariff will be applicable for supply of electricity to HT consumers contracted for 100 kVA and above for regular power supply and requiring the power supply for the purposes not specified in any other HT Categories.

13.1 Demand Charges;

13.1.1 For billing demand upto contract demand

(a)	For first 500 kVA of billing demand	Rs. 100/- per kVA per month
(b)	For next 500 kVA of billing demand	Rs. 200/- per kVA per month
(d)	For billing demand in excess of 1000 kVA	Rs. 270/- per kVA per month

13.1.2 For Billing Demand in Excess of Contract Demand

For billing demand in excess over the contract demand	Rs. 370 per kVA per month
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PLUS

13.2 Energy Charges

For entire consumption during the month		
(b)	upto 500 kVA of billing demand	390 Paise per Unit
(c)	For next 2000 kVA of billing demand	410 paise per Unit
(d)	For billing demand in excess of 2500 kVA	420 Paise per Unit

PLUS



13.3 Time of Use Charges:

For energy consumption during the two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	
(a) For Billing Demand upto 500kVA	35 Paise per Unit
(b) For Billing Demand above 500kVA	75 Paise per Unit

13.4 Billing Demand:

The billing demand shall be the highest of the following:

- (a) Actual maximum demand established during the month
- (b) Eighty-five percent of the contract demand
- (c) One hundred kVA

13.5 Minimum Bills:

Payment of “demand charges” based on kVA of billing demand.

13.6 Power Factor Adjustment Charges:

13.6.1 Penalty for poor Power Factor:

- (a) The power factor adjustment charges shall be levied at the rate of 1% on the total amount of electricity bills for the month under the head “Energy Charges” for every 1% drop or part thereof in the average power factor during the month below 90% upto 85%.
- (b) In addition to the above clause, for every 1% drop or part thereof in average power factor during the month below 85% at the rate of 2% on the total amount of electricity bill for that month under the head “Energy Charges”, will be charged.

13.6.2 Power Factor Rebate:

If the power factor of the consumer’s installation in any month is above 95%, the consumer will be entitled to a rebate at the rate of 0.5% (half percent) in excess of 95% power factor on the total amount of electricity bill for that month under the head “Energy Charges” for every 1% rise or part thereof in the average power factor during the month above 95%.



13.7 Maximum Demand and its Measurement:

The maximum demand in kW or kVA, as the case may be, shall mean an average KW/KVA supplied during consecutive 30/15 minutes or if consumer is having parallel operation with the grid and has opted for 3 minutes, period of maximum use where such meter with the features of reading the maximum demand in KW/KVA directly, have been provided.

13.8 Contract Demand:

The contract demand shall mean the maximum KW/KVA for the supply, of which the supplier undertakes to provide facilities from time to time.

13.9 Rebate for Supply at EHV:

On Energy charges:		Rebate @
(a)	If supply is availed at 33/66 kV	0.5%
(b)	If supply is availed at 132 kV and above	1.0%

13.10 Concession for Use of Electricity during Night Hours:

For the consumer eligible for using supply at any time during 24 hours, entire consumption shall be billed at the energy charges specified above. However, the energy consumed during night hours of 10.00 PM to 06.00 AM next morning (recorded by a polyphase meter operated through time-switch) as is in excess of one third of the total energy consumed during the month, shall be eligible for concession at the rate of 75 Paise per unit. The polyphase meter and time switch shall be procured and installed by the consumer at his cost and sealed by the Distribution Licensee.

13.11 Seasonal Consumers taking HT Supply:

13.11.1 The expression, "Seasonal Consumer", shall mean a consumer who takes and uses power supply for ice factory, ice-candy machines, ginning and pressing factory, oil mill, rice mill, salt industry, sugar factory, khandsari, cold storage plants (including such plants in fishery industry), tapioca industries manufacturing starch, pumping load or irrigation, white coal manufacturers etc.



13.11.2 A consumer, who desires to be billed for minimum charges on annual basis, shall intimate in writing in advance about the off-season during which energy consumption, if any, shall be mainly for overhauling of the plant and machinery. The off-season period at any time shall be a full calendar month/months. The total period of off-season so declared and observed shall be not less than three calendar months in a calendar year.

13.11.3 The total minimum amount under the head “Demand and Energy Charges” payable by a seasonal consumer satisfying the eligibility criteria under sub clause 13.12.1 above and complying with provisions stipulated under sub clauses 13.12.2 above shall be Rs.4000/- per annum per kVA of the billing demand.

13.11.4 The billing demand shall be the highest of the following:

- (d) The highest of the actual maximum demand registered during the calendar year.
- (e) Eighty-five percent of the arithmetic average of contract demand during the year.
- (f) One hundred kVA.

13.11.5 Units consumed during the off-season period shall be charged for at the flat rate of 420 Paise per unit.

13.11.6 Electricity bills paid during off-season period shall not be taken into account towards the amount payable against the annual minimum bill. The amount paid by the consumer towards the electricity bills for seasonal period only under the heads “Demand Charges” and “Energy Charges” shall be taken into account while determining the amount payable towards the annual minimum bill.

14.0 Rate HTP-II

Applicability: This tariff shall be applicable for supply of energy to HT consumers contracting for 100 KVA and above, requiring power supply for Water Works and Sewerage pumping stations run by Local Authorities and GW & SB. GIDC Water Works.



14.1 Demand Charges:

14.1.1 For billing demand upto contract demand

(a)	For first 500 kVA of billing demand	Rs.90/- per kVA per month
(b)	For next 500 kVA of billing demand	Rs.190/- per kVA per month
(c)	For billing demand in excess of 1000 kVA	Rs.250/- per kVA per month

14.1.2 For billing demand in excess of contract demand

For billing demand in excess of contract demand	Rs.335 per kVA per month
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PLUS

14.2 Energy Charges:

For entire consumption during the month		
(b)	upto 500 kVA of billing demand	390 Paise per Unit
(c)	For next 2000 kVA of billing demand	410 Paise per Unit
(d)	For billing demand in excess of 2500 kVA	420 Paise per Unit

PLUS

14.3 Time of Use Charges:

For energy consumption during the two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	
(a) For Billing Demand upto 500kVA	35 Paise per Unit
(b) For Billing Demand above 500kVA	75 Paise per Unit

- 14.4 Billing demand
- 14.5 Minimum bill
- 14.6 Power Factor Adjustment Charges
- 14.7 Maximum demand and its measurement
- 14.8 Contract Demand
- 14.9 Rebate for supply at EHV

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Same as per HTP-I Tariff



15.0 Rate: HTP-III

This tariff shall be applicable to a consumer taking supply of electricity at high voltage, contracting for not less than 100 kVA 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.

15.1 Demand Charges:

For billing demand upto contract demand	Rs.462/- per kVA per month
For billing demand in excess of contract demand	Rs. 550/- per kVA per month

PLUS

15.2 Energy Charges:

For all units consumed during the month	630 Paise/Unit
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PLUS

15.3 Time of Use Charges:

Additional charge for energy consumption during two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	75 Paise per Unit
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15.4 Billing demand

15.5 Minimum bill

15.6 Power Factor Adjustment Charges

15.7 Maximum demand and its measurement

15.8 Contract Demand

15.9 Rebate for supply at EHV

} Same as per HTP-I Tariff

16.0 Rate: HTP-IV

This tariff shall be applicable for supply of electricity to HT consumers opting to use electricity exclusively during night hours from 10.00 PM to 06.00 AM next day and contracted for regular power supply of 100 kVA and above.



16.1 Demand Charges:

Same rates as specified in Rate HTP-I

PLUS

16.2 Energy Charges:

For all units consumed during the month	200 Paise per Unit
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16.3 Billing demand	}	Same as per HTP-I Tariff
16.4 Minimum bill		
16.5 Power Factor Adjustment Charges		
16.6 Maximum demand and its measurement		
16.7 Contract Demand		
16.8 Rebate for supply at EHV		

NOTE:

- 1. 10% of total units consumed and 15% of the contract demand can be availed beyond the prescribed hours for the purpose of maintenance.*
- 2. For the purpose of office lighting, fans etc. the consumer may apply for a separate connection.*
- 3. This tariff shall be applicable if the consumer so opts to be charged in place of HTP-I tariff by using electricity exclusively during night hours as above.*
- 4. The option can be exercised to switch over from HTP-I tariff to HTP-IV tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.*
- 5. In case the consumer is not fulfilling the conditions of this tariff category, then such consumer for the relevant billing period will be billed under tariff category HTP-I.*



17.0 Rate: HTP- V

HT - Agricultural (for HT Lift Irrigation scheme only)

This tariff shall be applicable for supply of electricity to High Tension Agricultural consumers contracting for 100 kVA and above, requiring power supply for lifting water from surface water sources such as canal, river and dam, and supplying water directly to the fields of farmers for agricultural irrigation only.

17.1 Demand Charges:

Demand Charges Rs. 25 per kVA per Month

PLUS

17.2 Energy Charges:

For all units consumed during the month	160 Paise per Unit
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17.3 Billing demand

17.4 Minimum bill

17.5 Power Factor Adjustment Charges

17.6 Maximum demand and its measurement

17.7 Contract Demand

17.8 Rebate for supply at EHV

} Same as per HTP-I Tariff

18.0 Rate: RAILWAY TRACTION

This tariff is applicable for power supply to Railway Traction at 132 kV/66 kV.

18.1 Demand Charges:

(a) For billing demand upto the contract demand	Rs. 160 per kVA per month
(b) For billing demand in excess of contract demand	Rs. 400 per kVA per month



NOTE: In case of the load transfer for traction supply due to non-availability of power supply at preceding or succeeding point of supply or maintenance at Discom's level, excess demand over the contract demand shall be charged at normal rate at appropriate point of supply.

Normal Demand Charges will also apply in case of bunching of trains. However, Discoms shall charge excess demand charges while raising the bills and Railways have to give convincing details and documentary proof of bunching of trains if they want to be charged at the normal demand charges. If satisfactory proof of bunching of trains is provided, Discom shall consider that occasion for normal demand charges, otherwise excess demand charges will be applicable specified as above at 18.1(b).

PLUS

18.2 Energy Charges:

For all units consumed during the month	455 Paise per Unit
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18.3 Billing demand	}	Same as per HTP-I Tariff
18.4 Minimum bill		
18.5 Power Factor Adjustment Charges		
18.6 Maximum demand and its measurement		
18.7 Contract Demand		
18.8 Rebate for supply at EHV		

