GUJARAT ELECTRICITY REGULATORY COMMISSION

Multi-Year Tariff Order:

Truing up for FY 2009-10,

Annual Performance Review for FY 2010-11,

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

and Tariff for FY 2011-12

For

Paschim Gujarat Vij Company Limited

Case No. 1102 of 2011

6th September, 2011

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GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)

AHMEDABAD

Multi-Year Tariff Order:

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

For

Paschim Gujarat Vij Company Limited

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TABLES

ANNEXURES

ABBREVIATIONS

A&G	Administration and General Expenses
AB Cable	Aerial Bunched Cable
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
CAGR	Compoud Annual Growth Rate
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
Control Period	FY 2011-12 to FY 2015-16
DGVCL	Dakshin Gujarat Vij Company Limited
DISCOM	Distribution Company
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
JGY	Jyoti Gram Yojna
kV	Kilo Volt
kVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
kWh	Kilo Watt Hour
LT	Low Tension Power
MGVCL	Madhya Gujarat Vij Company Limited
MU	Million Units (Million kWh)
MW	Mega Watt
MYT	Multi Year Tariff
O&M	Operation & Maintenance
PF	Power Factor
PGCIL	Power Grid Corporation of India Limited
PGVCL	Paschim Gujarat Vij Company Limited
PPA	Power Purchase Agreement
PPPA	Power Purchase Price Adjustment
R&M	Repair and Maintenance
RE	Revised Estimate
RLDC	Regional Load Despatch Centre
SBAR	State Bank Advance Rate
SBI	State Bank of India
SLDC	State Load Despatch Centre
UGVCL	Uttar Gujarat Vij Company Limited
WRLDC	Western Regional Load Despatch Centre
YoY	Year on Year

Before the Gujarat Electricity Regulatory Commission at Ahmedabad

Case No. 1102 of 2011

Date of the Order: 06.09.2011

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 Paschim Gujarat Vij Company Limited (hereinafter referred to as 'PGVCL' or 'Petitioner') has filed its petition on 12th May, 2011 under Section 62 of the Electricity Act, 2003, read with Gujarat Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2005, Gujarat Electricity Regulatory Commission (Multi-Year Tariff Framework) Regulations, 2007 and Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011 (hereinafter referred to as 'MYT Regulations, 2011'), for truing up of FY 2009-10, Annual Performance Review (APR) for FY 2010-11, Aggregate Revenue Requirement (ARR) for the control period FY 2011-12 to FY 2015-16 and determination of Tariff for FY 2011-12.

The Commission, on preliminary analysis, admitted the petition on 17th May, 2011.

1.2 Paschim Gujarat Vij Company Limited (PGVCL)

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board with effect from 1st April, 2005. The Generation, Transmission and Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies. The seven successor companies are listed below:

Generation	Gujarat State Electricity Corporation Limited (GSECL)
Transmission	Gujarat Energy Transmission Corporation Limited (GETCO)

Distribution Companies:

Sl. No	Name of Company
1	Dakshin Gujarat Vij Company Limited (DGVCL)
2	Madhya Gujarat Vij Company Limited (MGVCL)
3	Uttar Gujarat Vij Company Limited (UGVCL)
4	Paschim Gujarat Vij Company Limited (PGVCL)

Gujarat Urja Vikas Nigam Limited (GUVNL), a holding company, is responsible for purchase of electricity from various sources and supply to Distribution Companies, and also other activities including trading of electricity.

The Government of Gujarat, vide notification dated 3rd October, 2006, notified the final opening balance sheets of the transferee companies as on 1st April, 2005. The value of assets and liabilities, which stand transferred from the erstwhile Gujarat Electricity Board to the transferee companies, including Paschim Gujarat Vij Company Limited (PGVCL). Assets and liabilities (gross block, loans and equity), as on the date mentioned in the notification, have been considered by the Commission in line with the Financial Restructuring Plan (FRP), as approved by Government of Gujarat.

1.3 Commission's Orders for the First Control Period

The Paschim Gujarat Vij Company Limited filed its petition under the Multi-Year Tariff framework for the FYs 2008-09, 2009-10 and 2010-11 on 31st July, 2008 in accordance with the Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2007 notified by GERC. The Commission, in exercise of the powers vested under Sections 61, 62 and 64 of the Electricity Act, 2003 and all other powers enabling it in this regard and after taking into consideration the submissions made by PGVCL, the objections by various stakeholders, response of PGVCL, issues raised during the public hearing and all other relevant material, issued the Multi-Year Tariff order on 17th January, 2009 for the control period comprising the FYs 2008-09, 2009-10 and 2010-11.

The Commission also issued the orders on the following:

Subject	Date of Issue
Annual Performance Review for FY 2008-09 and Determination of tariff for FY 2009-10	14th December, 2009
Annual Performance Review for FY 2009-10 and Determination of tariff for FY 2010-11	31st March, 2010

1.4 Admission of Current Petition and Public Hearing Process

The PGVCL submitted the current petition for 'truing up' of FY 2009-10, Annual Performance Review (APR) for FY 2010-11 and the determination of Aggregate Revenue Requirement (ARR) for the distribution business for the period FY 2011-12 to FY 2015-16, the control period and determination of tariff for FY 2011-12. The Commission undertook the technical validation of the petition and admitted the petition (Case No.1102 of 2011) on 17th May, 2011.

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

1. DNA (Daily News and Analysis) (English)
2. Divya Bhaskar (Gujarati)

The petitioner also placed the public notice and the petition on the website (www.pgvcl.com) for inviting objections and suggestions on its petition.

The interested parties/stakeholders were asked to file their objections / suggestions on the petition on or before 18th June, 2011.

The PGVCL / Commission received the objections / suggestions from 21 consumers / consumer organisations. The Commission examined the objections / suggestions received and fixed the date for public hearing for PGVCL to be held on 11th and 12th July, 2011. Subsequently, communication was sent to these objectors to take part in the public hearing process for presenting their views in person before the Commission. The public hearing was conducted at Commission's Office in Ahmedabad on scheduled dates.

The names of the consumers / consumer organisations that filed their objections and the objectors who participated in the public hearing for presenting their objections are given in Annexure-1.1.

A short note on the main issues raised by the objectors in the written submissions and also in the public hearing in respect of the petition, along with the response of PGVCL and the Commission's views on the response are briefly given in Chapter 3.

1.5 Approach of this Order

The Multi-Year Tariff Regulations, 2007 provide for 'truing up' of previous year, Annual Performance Review (APR) for the current year and determination of tariff for the ensuing year. The Commission had approved the ARR for the three years of the first control period FY 2008-09 to FY 2010-11 by the MYT order dated 17th January, 2009, the Annual Performance Review for FY 2008-09 by the tariff order dated 14th December, 2009 and Annual Performance Review for FY 2009-10 and the tariff order dated 31st March, 2010.

The PGVCL has now approached the Commission with the present petition for 'truing up' of the FY 2009-10, the Annual Performance Review for the FY 2010-11 and determination of ARR for the period FY 2011-12 to FY 2015-16, the control period and determination of tariff for the FY 2011-12.

The Commission has undertaken truing up of the FY 2009-10 and Performance Review for FY 2010-11, based on the submission of the petitioner. However, the Commission has undertaken the computation of gains and losses for the FY 2009-10, based on the audited annual accounts made available to it. The Commission has not undertaken the computation of gains and losses for the FY 2010-11 as the audited accounts are not available. The computation of gains and losses would be undertaken for the FY 2010-11, based on the audited annual accounts of the petitioner during the FY 2011-12, while finalizing the tariff order for FY 2012-13.

While considering the revision of the ARR for the FY 2009-10, the Commission has been primarily guided by the following principles:

1. Controllable parameters have been considered at the level approved under the Tariff Order for FY 2009-10, unless the Commission considers there are valid reasons for revising of the same.
2. Uncontrollable parameters have been revised, based on the actual performance observed.

The truing up of the FY 2009-10 and annual performance review for FY 2010-11 have been considered, based on the MYT Regulations, 2007.

The determination of ARR for the period FY 2011-12 to FY 2015-16 and the tariff for FY 2011-12 have been considered as per GERC (MYT) Regulations, 2011, which were notified on 22nd March, 2011.

Regulation 1.4 (a) of these Regulations, 2011 reads as under:

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

1.6 Contents of this Order

This order is divided into ten chapters, as under:

1. The **First Chapter** provides a background of the petitioner, the petition and details of the public hearing process and the approach adopted for this order.
2. The **Second Chapter** contains a summary of PGVCL's MYT petition.
3. The **Third Chapter** provides a brief account of the public hearing process, including the objections raised by various stakeholders, PGVCL's response and the Commission's views on the same.
4. The **Fourth Chapter** deals with the 'Truing up' for FY 2009-10.
5. The **Fifth Chapter** deals with Annual Performance Review (APR) for FY 2010-11

6. The **Sixth Chapter** deals with the Aggregate Revenue Requirement (ARR) for FY 2011-12 to 2015-16, the control period.
7. The **Seventh Chapter** deals with the compliance of directives and issue of fresh directives.
8. The **Eight Chapter** deals with Power Purchase Cost Adjustment.
9. The **Ninth Chapter** deals with computation of Wheeling Charges
10. The **Tenth Chapter** deals with Tariff Philosophy and Tariff Proposals approved by the Commission.

1.7 Business Plan

The PGVCL has submitted the Business Plan for the control period of five (5) years from 1st April, 2011 to 31st March, 2016, in accordance with the directive of the Commission vide Letter No.GERC/MYT/Tariff-2010/1794 dated 12th November, 2010. It is observed that the assumptions used by the company in the Business Plan are in line with the provisions of the MYT Regulations, 2011, based on which the (MYT) order is being issued.

Annexure 1.1

List of Organizations and individuals who filed objections/suggestions

Sl. No	Name
1	Viom Networks
2	Rajkot Chamber of Commerce & Industry
3	Gujarat Krushi Vij Grahak Suraksha Sangh (GKVGSS)
4	Pradesh Kisan Vikas Sang
5	Laghu Udhyog Bharti Gujarat
6	Tata Teleservices Limited
7	Indus Towers Limited
8	Utility Users' Welfare Association
9	Surat Citizen's Council Trust & The Southern Gujarat Chamber of Commerce & Industry
10	The Gujarat Chamber of Commerce & Industry (GCCI)
11	Consumer Education and Research Society (CERS)
12	Federation of Industries and Association (Gujarat) (FIA)
13	'Tax Payers' – 'Users' – Consumer Association - Jamnagar
14	Akhil Bhartiya Grahak Panchaya –Rajkot
15	Federation of Kutch Industries Association (FOKIA)
16	Gondal Chamber of Commerce & Industry
17	Sihor Steel Re-rolling Mills Association
18	Welspun Corp Ltd
19	Rajkot Engineering Association
20	Bhavnagar Induction Furnace Association
21	New Kandla Salt & Chemical Co. P. Ltd.

List of participants present in the public hearing

Sl. No	Name
1	Viom Networks
2	Rajkot Chamber of Commerce & Industry
3	Gujarat Krushi Vij Grahak Suraksha Sangh (GKVGSS)
4	Pradesh Kisan Vikas Sang
5	Laghu Udhyog Bharti Gujarat
6	Tata Teleservices Limited
7	Indus Towers Limited
8	Utility Users' Welfare Association
9	Surat Citizen's Council Trust & The Southern Gujarat Chamber of Commerce & Industry
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20	New Kandla Salt & Chemical Co. P. Ltd.

2. Summary of ARR and Tariff 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 Paschim Gujarat Vij Company Limited (PGVCL) submitted the petition on 5th May, 2011 seeking approval for Aggregate Revenue Requirement and determination of Retail supply tariff for the control period FY 2011-12 to FY 2015-16.

The PGVCL has projected the revenue requirement for the control period as under:

Year	Rs. crore
2011-12	6434
2012-13	7419
2013-14	8175
2014-15	8618
2015-16	9656

The details of expenses under various components of ARR are given in the Table below:

Table 2.1: ARR proposed by PGVCL for the control period FY 2011-12 to FY 2015-16

(Rs. crores)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Cost of power purchase	5347	6143	6705	6990	7896
2	Operation and Maintenance expenses	461	487	515	544	576
2.1	Employee cost	391	414	437	462	489
2.2	Repairs and maintenance	84	89	94	99	105
2.3	Administration and general expenses	74	79	83	88	93
2.4	Other debts	5	5	5	6	6
2.5	Extraordinary items	-	-	-	-	-
2.6	Net prior period expenses / income	17	18	19	20	22
2.7	Other expenses capitalised	(111)	(118)	(124)	(131)	(139)
3	Depreciation	313	383	458	522	575
4	Interest and finance charges	137	166	194	208	209
5	Interest on working capital	76	88	99	105	119
6	Provision for bad debts	9	10	10	11	12
7	**Sub-total (1 to 6)**	**6342**	**7277**	**7981**	**8381**	**9386**
8	Return on equity	219	269	321	363	397
9	Provision for tax / tax paid	15	15	15	15	15
10	**Total expenditure (7 to 9)**	**6576**	**7561**	**8317**	**8760**	**9799**
11	Less: Non-tariff income	142	142	142	142	142
12	**Aggregate Revenue Requirement**	**6434**	**7419**	**8175**	**8618**	**9656**

2.2 Estimated Revenue Gap for FY 2011-12

Based on the ARR for FY 2011-12 given in Table 2.1 above, the estimated revenue gap for FY 2011-12 at existing tariff is shown in Table 2.2 below.

Table 2.2: Estimated revenue gap for FY 2011-12 at existing tariff

Sl. No.	Particulars	FY 2011-12
1.	Aggregate Revenue Requirement	6434
2.	Revenue gap from truing up of FY 2009-10	60
3.	**Total Aggregate Revenue Requirement**	**6495**
4.	Revenue with existing tariff	4529
5.	PPPA charges @61 paise/kWh	901
6.	Other income (consumer related)	124
7.	Agriculture subsidy	401
8.	**Total revenue including subsidy (4 to 7)**	**5955**
9.	**Gap / (Surplus) 3-8)**	**539**

2.3 PGVCL's request to the Commission:

1. To condone the delay in filing this petition.
2. To admit this petition seeking truing up of FY 2009-10, Annual Performance Review of FY 2010-11 and MYT petition for the second control period FY 2011-12 to 2015-16.
3. To approve the truing up for FY 2009-10 and allow sharing of gains/losses with the Consumers, as per sharing mechanism prescribed in the MYT Regulations, 2007.
4. To approve the Annual Performance Review for FY 2010-11 and allow sharing of gains/losses with the Consumers, as per sharing mechanism prescribed in the MYT Regulations, 2007.
5. To allow BST methodology and pass through of power purchase cost based on BST methodology.
6. To approve Aggregate Revenue Requirement of the second control period FY 2011-12 to 2015-16, as requested in this petition on the basis of GERC (Multi-Year Tariff) Regulations, 2011.
7. To approve the methodology for recovery of Revenue Gap for FY 2011-12 as given in the Petition through proposed tariff hike of 25 paise/kWh for all categories of consumers, except agriculture and BPL (1-30 kWh).

8. To treat the un-recovered revenue gap as a regulatory asset, to be recovered in the future tariff.
9. To approve the actual capital expenditure for the FY 2009-10, revised capital expenditure plan for FY 2010-11 and projection of capital expenditure for the second control period FY 2011-12 to 2015-16.
10. To approve the formula proposed for calculation of PPPA charges.
11. To consider approved parameters/ARR of GSECL, GETCO and SLDC, while finalising tariff of PGVCL.
12. To grant any other relief as the Commission may consider appropriate. The petitioner craves leave of the Commission to allow further submissions, addition and alteration to this Petition as may be necessary from time to time, and
13. To pass any other order, as the Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

3. Objections raised by various stakeholders, PGVCL's response and the Commission comments

In response to the public notice inviting objections/suggestions of the stakeholders on the petition, a number of consumers/consumer organisations filed their submissions in writing. Some of these objectors also participated in the public hearing held on the 11th and 12th of July, 2011 jointly for DGVCL, MGVCL, UGVCL and PGVCL. The objections /suggestions, the responses and submissions of the petitioner on them and the views of the Commission are indicated below. Submissions and responses, pertaining to specific and detailed aspects of tariff, have been taken into account in the formulation of an equitable tariff, balancing the interests of various stakeholders, even if they may not find place in this chapter.

1. Petition belated

Objection: Some of the stakeholders have pointed out that the filing of the petition is delayed by more than seven months. It was not submitted on 30th November, 2010, as per Regulation 9.2 of Tariff Regulations, 2007. Hence, it may be rejected.

Response of the Petitioner: The petitioner has submitted that, for the 2nd control period FY 2011-12 to FY 2015-16, the MYT filing due date was 30 November, 2010. This was extended by the Commission up to 31st December, 2010. In the month of December, 2010, the Commission issued the discussion paper on MYT Regulations, 2011. Comments were invited from the stakeholders. The MYT Regulations, 2011 were consequently issued on 22 March, 2011 and were made effective from 1st April 2011. The petitioner filed the petition based on the MYT Regulations, 2011. Also, the consultation with the State Government for subsidy support took some time. The Commission is empowered to condone justifiable delays under Clause 85 of the Conduct of Business Regulations, 2004.

Commission's View: *In view of the circumstances mentioned by the petitioner the delay is condoned. However, the petitioner is directed to file such petition, in future, within the time prescribed by the relevant Regulations.*

2. GUVNL role and conflict of interest

Objection: Some of the stakeholders have raised issues about the role of GUVNL. The GUVNL cannot be a trader and a managing agent of the DISCOMs at the same time, without conflict of interest.

Response of the Petitioner: The petitioner has submitted that GUVNL derives its origin to the Transfer Scheme notification issued under the provisions of Section 28 of Gujarat Electricity Industry Reorganisation and Regulation Act, 2003 and Section 131 of the EA, 2003. The State Government issued the first transfer scheme through notification dt.24/10/2003 to form separate generation, transmission and distribution companies. Schedule G of the notification relates to bulk purchase of power from generating companies and supply /sale to DISCOMs (apart from other residual obligations, etc). GUVNL was incorporated under State Govt notification dated 10/12/2004 for the purpose of transferring the assets liabilities and proceedings, mentioned in Schedule G of the GEB (to GUVNL), including trading in electricity. Further, the State Government through notification dated 31/03/2005, finalised the transfer scheme w.e.f 01/04/2005.

Commission's View: *The objection* and *the detailed response are noted. GUVNL is a holding company and is also entrusted with bulk purchase of power and supply to DISCOMs. There is no conflict of interest. Any profit in trading is passed on to the DISCOMs.*

3. Filing should be by GUVNL, not by DISCOMs. The DISCOM's petitions should not be admitted.

Objection: Some stakeholders have stated that, as the DISCOMs are subsidiaries of GUVNL, they are not GOG companies. So, GUVNL, which is a GOG company, is entitled to file the petition.

Response of the Petitioner: The petitioner has submitted that all the DISCOMs are distribution licensees. So, they are required to file the MYT petitions under the MYT Regulations.

Commission's View: *Only the licensee is entitled to file the tariff petition.*

4. Tariff not to have retrospective application

Objection: Some stakeholders have pointed out that the petition is filed late. The petitioner should be penalised for the delay. The tariff should not be retrospective.

Response of the Petitioner: The petitioner has submitted that the due date for filing was extended from 30th November, 2010 to 31st December, 2010. Meanwhile, the Discussion Paper on MYT Regulations, 2010 was issued in December, 2010. The MYT Regulations, 2011 were issued on 22 March, 2011, w.e.f. 1st April, 2011. The petition has been filed based on these Regulations. Further, consultation with Government of Gujarat on issues like agricultural subsidy also took time. The Commission is empowered to take a decision in the matter.

Commission's View: *The objection and the response are noted and the Commission has taken an appropriate decision.*

5. Projections are unrealistic

Objection: Some of the stakeholders have represented that the projections are unrealistic and inconsistent.

Response of the Petitioner: The petitioner has submitted that projections are made according to Tariff Regulations and are based on past data and the observed growth. Also, the projections are made prudently. The assumptions made are shown in the petition.

Commission's View: *The objection and the response are noted. The Commission has examined the projections from the point of view reasonableness and prudence.*

6. T & D losses are high

Objection: Some stakeholders have represented that the T & D losses be restricted to 11.5% only (10% distribution and 1.5% transmission) and consumers should not be burdened for losses exceeding these limits.

Response of the Petitioner: The petitioner has submitted that a number of steps have been taken to reduce the technical and commercial losses.

Commission's View: *The petitioner should intensity efforts in this regard and is directed to reduce distribution losses as per the target set by the Commission.*

7. Reasonableness of losses needs assessment

Objection: Some of the stakeholders have stated that the burden of distribution losses cannot be transferred to the consumers with the enactment of the Electricity Regulatory Commission Act of 1998 Act and the EA, 2003. GERC should avail the services of experts to identify the quantum of losses that can be allowed for determination of the tariff.

Response of the Petitioner: The petitioner has submitted that several steps have been taken to bring the losses to a reasonable level.

Commission's View: *It is essential to reduce the losses to a reasonable level. The Commission has fixed the loss trajectory and the losses are allowed as per the targeted level.*

8. Power purchases increase due to high losses

Objection: Some of the stakeholders have pointed out that power purchase costs have increased due to high distribution losses.

Response of the Petitioner: The petitioner has submitted that the he has taken several steps and made improvement in practices to bring the losses to the permissible level. The high losses are due to factors like poor monsoon, and supplies to widely dispersed rural areas, etc.

Commission View: *The objection and the response are noted. The utilities are directed to reduce the losses as per the trajectory given by the Commission.*

9. Dynamic Allocation of PPAs

Objection: Some of the stakeholders have stated that dynamic allocation of PPAs to DISCOMs is against the Tariff Policy and National Electricity Policy. If the allocations are changed to suit the utility conditions, the consumers should also be allowed to change contract demand every 2/4/6 months to ensure that they continue to be viable. The reallocation of PPAs is not legal and cannot be done without permission of GERC. It should be a one-time exercise.

Response of the Petitioner: The petitioner has submitted that PPA allocation is reviewed and revised, as and when new capacity addition is comes up, or based on the requirement of the DISCOMs. The paying capacity of the DISCOMs differs, on account of the different consumer mix and load. So permanent allocation of PPA may distort the requirement of ARR and the tariffs. Hence, in the tariff petitions, the power purchase cost is allocated by GUVNL out of the total pooled power purchase cost and is not any PPA specific.

Commission's View: *The GUVNL purchases power from various sources, on behalf of all the DISCOMs. Since the DISCOMs have different and varied consumer mix and load profile, for the time being, the GUVNL adopted the approach of dynamic allocation of capacities with a view to facilitating uniformity of retail tariff across the areas of all DISCOMs.*

10. UI charges

Objection: Some of the stakeholders have raised the issue of UI charges and pointed out that UI charges are not considered in power purchase cost.

Response of the Petitioner: The petitioner has submitted that UI charges are basically aimed to maintain grid discipline. Power purchase projections are generally based on scheduled energy as per MOD. However, for 2010-11, the power purchase cost for the second half is worked out, based on per unit cost during the 1st half of schedule energy which consists of:

- Power Purchase cost in line with PPA calculated on scheduled energy,
- UI charges, and
- Revenue from trading.

Commission's View: *The objection and response from the utility are noted.*

11. Merit order despatch – Correlation with UI rates

Objection: Some of the stakeholders have pointed out that the dispatch instructions issued ahead, for Merit order Dispatch, need to be revised in real time with regard to the prevailing UI rates.

Response of the Petitioner: The petitioner has submitted that UI mechanism is intended to impose grid discipline so that demand and supply are matched with regard to the frequency. The DISCOM needs to schedule its power from various generating sources according to its requirement keeping in view the merit order.

Commission's View: *The objection and the response are noted.*

12. Power Purchase Price Adjustment (PPPA)

Objection: Some of the stakeholders have requested that the levying of interim extra charges by way of PPPA in between the year should not be allowed.

Response of the Petitioner: The petitioner has submitted that the cost of the power purchase is approved by the appropriate regulatory authority, namely the GERC / CERC.

The incremental cost paid by the petitioner, compared to the base year's figures, is to be recovered through power purchase adjustment mechanism.

Commission's View: *The objection and the response are noted. The Petitioner is entitled to recover increase with reference to the base price approved by the Commission in the Tariff Order during the year from the consumers as per the FPPPA formula.*

13. Voltage Neutral FPPPA Charge

Objection: Some of the stakeholders have stated that the FPPPA formula has a loss compensation factor of 33%, irrespective of the voltage level at which the consumer takes supply. This is grossly unfair for HV consumers (for example consumers taking 220 KV supply pay about 16 times more since their losses level is only 2% at 220 KV). Also, as losses have generally declined, compensation needs revision.

Response of the Petitioner: The petitioner has submitted that the plea to change FPPPA on voltage level basis is difficult to implement. There is no detailed study to assess voltage level wise losses. The voltage level cost of supply, based on Annual accounts, is not backed by proper load flow studies and cannot form the basis for revision of FPPPA on voltage level.

Also, the tariffs, based on voltage level, will tend to create a feeling of discrimination among consumers in respect of sharing the fuel cost and this is violative of EA, 2003.

A uniform FPPPA charge goes some way to reduce the cross subsidy among the consumer categories.

Any change in the FPPPA charges will need detailed discussion.

Commission's View: *The objection and the response are noted. The issues, such as category-wise level of losses and cross subsidisation, need a detailed study and the utility is directed to take up the matter.*

14. Exorbitant penalty for excess demand

Objection: Some of the stakeholders have objected that CPPs are charged exorbitantly at 3 times for excess demand registered by them on the plea that costly power has to be purchased to take care of such infringement. But if FPPPA permits total pass through, such a plea is not sustainable.

Response of the Petitioner: The petitioner has submitted that the FPPPA is intended to take care of the increase in fuel price and power purchase costs. The existing formula does not take into account the impact on the actual power purchase cost, due to variation in the quantum of power actually supplied by generating stations and that approved by the Commission.

Commission's View: *The objection and the response are noted. Commission directs the petitioner to recover penal charges for exceeding contract demand in accordance with relevant Regulations / Tariff Order. In case of any grievances the aggrieved party can approach the grievances redressal forum (CGRF) of the utility.*

15. Technical losses and FPPPA

Objection: Some stakeholders have pointed out that relative proportion of Technical and commercial losses remain indeterminate. The Commission needs to examine how much technical loss should be allowed in FPPPA formula.

Response of the Petitioner: The T&D losses are approved by the Commission for each DISCOM, based on which the FPPPA is determined.

Commission's View*: The objection and the response are noted. The Commission directs the petitioner to undertake a study to segregate technical and commercial losses and report to the Commission by December, 2011.*

16. Revision of FPPPA at 61 Ps/unit

Objection: Some stakeholders have pointed out that, in the ARR for the 2nd control period, strangely the petitioner has taken 61 paise/unit as confirmed FPPPA charges for revision of tariff. FPPPA is variable and cannot be linked to tariff in this manner.

Response of the Petitioner: The petitioner has submitted that actually, the average FPPPA for 2009-10 was 61 paisa. It is proposed to shift the base year for calculation of FPPPA to Financial Year 2009-10.

Commission View: *The FPPPA of 61 Ps/unit is not merged with tariff. As it is collected from consumers along with tariff, it is considered as a part of revenue.*

17. Tariff for Telecom infrastructure services

Objections

Some of the consumers in the telecom infrastructure enterprises have represented that:

1) Telecom services should be considered as a non-commercial or industrial category. The tariff applicable to commercial category should be reduced, or a new sub-category should be created for telecom towers within the commercial category. Some regulatory authorities have categorised these services under mixed load, meaning that lightning and appliances load cannot be separated,
2) They provide an essential public utility service on a 24/7 basis and do not deserve to be burdened with commercial tariff.

   As the telecom tower installations are spread widely across the state, it is necessary to install AMR meters and issue consolidated billing for all installations belonging to a specific consumer. The Telecom infrastructure takes supply at 11KV at most of the places and provides a step-down transformer, though the required load is only 15 - 20 KW, and saves the burden of extending LT supply to the telecom provider.

Response of the Petitioner:

HT Supply: The petitioner has submitted that, in HT category supply, there is only one applicable tariff category, i.e. HTP-I, for such consumers and this tariff is applied. Consumers supplied at higher voltages have a better quality of supply than consumer categories like agricultural. They need to pay more so that cross-subsidy can be paid to needy classes of consumers.

LT Supply: Telecom service is a service industry. No manufacturing is involved. As per the present tariff structure, in case of utilisation of non motive power load by non residential consumers, the applicable tariffs are: LFD-II and LFD-III.

The proposed tariffs for various categories are within a band of +/- 20% and are as per the average cost of supply.

Consolidated billing and AMR: The general conditions of tariff schedule lay down that each of the tariffs apply only within the compact area of the premises not intervened by any area / road belonging to any person or authority, other than the consumer. As the spread of the telecom towers is not in accordance with this condition, it is not possible to give a single consumer treatment to all such installations. Further, the various installations may fall under the jurisdiction of separate billing authorities and billing dates may also differ. It is difficult to prepare a consolidated billing. However, the consumer is allowed a consolidated payment of all his connections at one location, i.e., the corporate office of the petitioner. Alternatively, the consumer can opt for advance payment as per provisions of Security Deposit Regulations. As regards AMR facility, it is provided to H.T. consumers and High value L.T. consumers only.

Commission's View: *The issue of application of motive power tariffs or a separate tariff for telecom installations has to be viewed in the larger context of a comprehensive review of the tariff structure.*

In the limited context of this tariff petition and Order, the Commission tried to fix the tariff equitably to all the categories as per the existing ground realities and provision of the Act.

18. HP based Tariff

Objection: Some of the stakeholders have suggested that the HP based tariff should be reduced from Rs 140/BHP/month to Rs 65/BHP/Month

Response of the Petitioner: The petitioner has submitted that the tariff to various categories of consumers is within the band of ± 20% over the average cost of supply, in accordance with the Tariff Policy.

Commission's View: *The objection and the response have been noted. The tariff for agriculture is subsidised by the State Government.*

19. Simpler Tariffs needed

Objection: Some of the stakeholders have stated that, for formulating simpler tariffs, the existing laws bind the Commission to differentiate between consumers only according to:

- Consumer's load factor or power factor,
- Consumer's total consumption of energy during any specific period, and
- Time at which supply is required

Unjustifiably Complex tariffs will only lead to harassment of the consumers.

Response of the Petitioner: The petitioner has submitted that the Tariff Policy mentions the need to have a rationalisation of tariff to various consumer categories, such that tariffs are nearer to the cost of supply within a band of +/- 20% over the average cost of supply, Even in effecting this, there are limitations.

While Industrial and Commercial consumers get good quality of supply all through the day including the peak hours, the agricultural category gets only a limited hours of supply and that too during off peak periods. Besides this, socio-economic considerations, relating to certain categories of consumers, cannot be ignored

Commission's View: *The objection and response are noted. The consumers are broadly categorised based on end use and tariffs are determined accordingly.*

20. Applicability of HTP-III Tariffs

Objection: Some of the stakeholders have pointed out that the HTP III tariff is for supply of not less than 100 KVA for temporary periods. A consumer not taking supply on regular basis under a proper agreement should be deemed to be taking supply temporarily.

If a HT consumer is found to be using load not authorised, HTP III tariff is applied to the proportionate units and demand, even if the consumer belongs to HTPI or II categories. For example, a welding transformer is normally rated 20/25 KVA. It may not establish a demand even 5 KVA, but application of demand charges of HTP-III results in demand charges of Rs 92400, because the minimum billing demand is 100 KVA in HTP-III. The offending load is not treated as part of the agreement and utility goes beyond the agreement and invokes HTP-III. A clarification that the extraneous HTP-III rate is not applicable in such cases may be issued.

In case of consumers governed by contracted load tariff, even if contracted load does not exceed the contracted demand, the penalty is imposed. The operating guidelines are harsh and loaded against consumers.

Response of the Petitioner: The petitioner has submitted that the objection is not clear. Illustrative Annexure, stated to be enclosed, is not found. The provisions of "unauthorized use of energy" are applied only in cases where Section 126 of EA, 2003 is attracted.

Commission's View: *The objector is advised to take up the issue with the petitioner and explain the grievance.*

21. Night concessional tariff

Objection: Some stakeholders have raised the issue of night concessional tariff. The night concessional tariff should not have any demand charge. Nighttime demand is low. Infrastructure is not loaded much. The fixed cost relates to peak cost only. The licensee cannot gainsay that infrastructure cost is the same for night time consumers and other normal users. M/s Feed Back Ventures have made a costing for the POC assignment. It needs to be referred in this regard. The multiplier between peak and off Peak cost amounts to 7 to 8.

Response of the Petitioner: The petitioner has submitted that the fixed charges are levied on consumers to recover the company's fixed costs, which the company incurs, irrespective of consumption and time of consumption. The fixed charges cover components, like the cost of infrastructure, employee cost, R & M cost, A&G cost, etc. Any kind of discrimination among tariff categories would lead to passing on the burden to the other tariff categories. It is not appropriate to have different fixed charges for consumers of the same category.

Commission's View: *It is true that night time consumers facilitate the reduction of peak demand, by shifting their demand to off peak period. They allow the base load equipment to be loaded optimally. But the fixed charges loaded at present in the tariff are only a fraction of the fixed costs*

22. LFD-II (b) not justified

Objection: Some stakeholders have resisted the move to divide LFD-II Category into (a) and (b). No reasons or justification has been provided by the petitioner for the proposal.

Response of the Petitioner: The petitioner has submitted that the purpose is for better DSM of commercial consumers. LFD II (b) is for big commercial consumers like super bazars, malls, hotels, etc. it is a demand-based tariff, aimed at promoting grid discipline.

Commission's View: *The objection and response are noted.*

23. LTP- I & III

Objection: Some stakeholders have pointed out that there is a move for a separate category for LTP-III and LTP-I consumers. An industrialist, who installs a temporarily machinery to execute a single contract, will be put to difficulty. In case of violation of LTP-III tariff, a chance should be given to him to explain the reason and then only action taken.

Response of the Petitioner: The petitioner has submitted that LTP-I is a connected load based tariff and LTP –III is a demand based tariff. It is proposed that an LTP – I consumer can switch over to LTP – III tariff, if he desires.

Often, motive power consumers contract larger demand under LTP –I and later switch over to LTP –III. The infrastructure created according to LTP- I category remains un-utilized and non-remunerative.

In case of violation on three occasions during the period of six months by LTP – III consumers, they have to switch over to HT supply.

Commission's View: *The objection and response of the utility are noted and appropriate decision is taken.*

24. Time of Use (TOU) charges

Objection: Some of the stakeholders have raised the point that the time of use charges on all HT consumers are unreasonable, especially extending it to below 500 KVA consumers. The power supply position is comfortable. Existing meters do not have a provision to meter the use with regard to time.

Response of the Petitioner: The petitioner has submitted that it is the intent of the petitioner to apply TOD rates on as many consumer categories as possible. Cost of power supply at peak hours is high. TOU takes care of this. There is another category of night supply with lesser energy charges. This is intended to ease the burden on the grid.

The night hours concession is given only if the night consumption is in excess of 1/3 of the total consumption in the month.

Commission's View: *The peak hour penalties and the night use concessions are the two faces of the same structure, the licensee should ensure that the meters are capable of registering the TOU. Appropriate decision taken on the applicability to all HT consumers.*

25. Need for one single Maximum Demand (MD) based tariffs

Objection: Some stakeholders have suggested that there should be only one single MD based tariff LTP-I for all LT industrial consumers. Below 150 HP, The tariff should encompass both lighting and motive load requirements. This will obviate the need for LTP-II meters, and reduce the scope for corruption. There could be a capping on the connected load, say, 3 to 4 kW for a 1 KWMD.

Response of the petitioner: The petitioner has submitted that the MD based tariff, with capping on connected load, may have overlapping effect on other tariff categories.

Commission's View: *The objection and the response are noted.*

26. Single LFD-II tariff for all commercial consumers

Objection: Some stakeholders have suggested that there should be only a single and uniform rate tariff LFD II for all commercial establishments. All LFD II meters should be 3 phase 4 wire and electronic.

Response of the Petitioner: The petitioner has submitted that LFD II is for single phase supply (total load up to 6 KW). The petitioner has proposed to create two categories: LFD II (a) and LFD II (b); LFD II (a) for loads up to 15 kW and LFD II (b) for loads of 15 kW and above. For better DSM, demand charges are proposed for demand of 15 kW and above.

Commission's View: *The objection and response are noted.*

27. Railway traction tariff

Objection: The representative of railways has suggested that there is an imperative need for reasonable railway traction tariff.

Response of the Petitioner's: The petitioner has submitted that the tariffs for traction have been stable for last eight years. Factors, like sharply increasing power purchase cost due to increase in coal and gas costs, cannot be passed on to the consumers in full to all consumers through FPPPA.

The depreciation and interest cost are also on increase due to increased asset base and high interest rates. The need of cross subsidisation of certain categories also necessitates a rise in tariff for some categories. The tariff for railway is within 20% of the average cost of supply, as per Tariff Policy.

Commission's View: *The objection and response are noted.*

28. Simultaneous Maximum Demand (MD) for Railways

Objection: The representative of railways has pleaded that railways is a moving load and register MD at all substations. Temporarily, demand may shoot up in particular sub-station, due to abnormal conditions like bunching of trains.

The tariff should be a single part tariff. If not, demand charges should be based on simultaneous M.D.

Response of the Petitioner: The petitioner has submitted that, for motive power consumers, two-part tariff is the universal norm. Distribution investments are triggered by local demands. Hence, the present system of levying the demand charges at individual traffic substation is the most appropriate basis for recovery of demand charges.

Commission's View: *Objection* and *response are noted.*

29. Quality of supply to Agriculture

Objections: Some of the stakeholders have submitted that the duration and quality of supply to Agriculture has worsened even while realisation per unit has been increasing.

Response of the Petitioner: The petitioner has submitted that a minimum of 8 hours of 3-phase supply is being given to agricultural sector. Depending on crop needs, more hours supply is also being given, even by purchasing power from various sources. In case of a shortfall in supply due to critical supply conditions, the same is compensated when conditions improve. The policy of Government of Gujarat is for uniform supply to agriculture across the DISCOMs. As agricultural connections are un-metered, the energy is assessed on the basis of 1700 units/HP/Annum

Commission's View: *The DISCOMs should ensure the stipulated hours of supply to the agricultural sector.*

30. Golden goals project

Objection: Some of the stakeholders have suggested that, to assess the achievements under the golden goals project, a copy of the scheme and the achievements thereunder may be furnished.

Response of the Petitioner: The petitioner has submitted that achievements under the different schemes have been shown in the petition. As informed at the hearing of ARR FY 2008-09, the goals for release of agricultural connections, planned under the golden goals, were later dropped. The targets for release are now based on the capital expenditure plan for the year.

Commission's View: - *The objection and the response are noted.*

31. Group Tariff for Agriculture

Objection: It is suggested by some of the stakeholders to introduce a special sub-category and / or grant relief to the farmers, who accept metered tariff in a group catered by a particular feeder, at concession of 10 Ps./unit consumption, for a period of minimum 3 years.

Response of the Petitioner: No Response

Commission's View: *The distribution company is directed to examine whether such tariff can be implemented.*

32. Concessional Tariff for Micro-irrigation

Objection: Some of the stakeholders have suggested that there is a need for a concessional tariff for individual farmers adopting Micro-Irrigation Systems.

Response of the Petitioner: The petitioner has submitted that applications for connections under such schemes have been accorded priority.

Commission's View: *The suggestion relates to a special tariff from a greater national perspective of optimising water use and is desirable. Such concessions can be extended, provided the government is willing to bear the cost of the subsidy.*

33. Tatkal Scheme

Objection: Some of the stakeholders have suggested that the Tatkal scheme be abolished.

Response of the Petitioner: It is submitted that the Objector's Petition No. 1087/2011 in this regard and on Dark Zone was disposed of by the Commission.

Commission's View: *The objection and the response are noted. The Commission has issued an order on 30.05.2011 in respect of the Petition No.1087/2011.*

34. Water for Brick manufacturers

Objection: Some of the stakeholders have objected to supplying of water to brick manufacturing units, under the head of agriculture category. Supply should only be for irrigation purpose.

Response of the Petitioner: The petitioner has submitted that the supply to Brick manufacturers by Agriculture consumers is an optional facility, and is not compulsory.

Commission's View: *The objection and the response are noted.*

35. Details of bad debts

Objection: Some of the stakeholders have petitioned that no efforts are made by the petitioner to recover the bad debts and the details of bad debts requiring write off may be furnished.

Response of the Petitioner: The petitioner has submitted that every year, a certain amount due from some consumers, which seems to be non-recoverable, is waived off and is charged in the profit and loss account of the company for the year under the head of other debits. A statement regarding defaulting consumers with arrears over Rs. 1 Lakh is furnished.

Commission view: *The petitioner needs to ensure that the outstanding dues are collected quickly and do not accumulate. It is necessary to see that all possible steps are taken to minimise bad debts which need to be written off.*

36. Revenue gap affordable for FY 2011-12

Objection: Some of the stakeholders have pointed out that the gap of Rs.1322 crores of all Discoms for 2011-12 can be eliminated by better performance.

Response of the Petitioner: The petitioner has submitted that the gap is significant and cannot be absorbed. Even after the increase, some gap remains. Expenses under various heads and the revenues are estimated, as per the ruling regulation and with prudence. Gap is normally due to increase in power purchase cost, employee cost and interest on working capital.

Commission's View: *The objection and response are noted. The Commission has examined the proposal for tariff increase and taken an appropriate decision in determining the tariffs.*

37. Receivable amount

Objection: Some of the stakeholders have pointed out that electricity billing is done much later than it is supplied. All the expenses relating to the supply are incurred and accounted at the end of financial year, but some unbilled amount remains to be accounted. This amount is not covered in annual audit reports and is not reflected in the ARR. Such amount is far more than the ARR gap.

The amount of receivables is far more than the total gap. Provision for sundry debtors has been made in schedule of the Annual Audited Accounts, but the same is not shown in the ARRs.

Response of the Petitioner: The petitioner has submitted that he prepares the financial statements on historical basis, in accordance with the accounting standards and generally acceptable accounting principles. Revenue from sale of power is recognised on accrual basis of energy supplied to consumers. The revenue from sale of power, indicated in the petition, includes provision for unbilled revenue.

Commission's View: *The objection and the response are noted.*

38. Mismatch between Annual Accounts and ARR

Objection: Some of the stakeholders have pointed out that the comparison of the audited annual accounts of 2009-10 and ARR shows a mismatch in respect of revenue from sale of power.

Response of the Petitioner: The petitioner has submitted that the income figures, shown in the P&L Accounts for FY 2009-10, include total income, i.e., revenue from sale of power, subsidy, grants, other income, etc. Table 6 of the petition shows revenue from sale of power from different categories of consumers. This can be verified from Schedule 14 attached to Annual Accounts for 2009-10.

Commission's View: *The objection and the response are noted.*

39. Consumer Contribution and Depreciation

Objection: Some of the stakeholders have stated that the capital works of the petitioner are made up of the recovery of full line cost from consumers and grants from the Government and other agencies, amounting to 50% of the cost of capital works. So, half the depreciation claimed must be shown as income.

Response of the Petitioner: The petitioner has submitted that in Table -13 of the petition, the total capitalisation to fixed assets and the consumers contribution have been shown.

The charging of depreciation on total assets is as per the accounting standards. Every year, the petitioner writes back certain part of consumers' contribution and grants on a consistent basis. Therefore, the appropriate effect to consumer's contribution is given weightage. Depreciation is charged on gross value of assets.

Commission's View: *The accounting of consumer's contribution and the depreciation has been treated as per the Regulations of the Commission.*

40. Interest on Security Deposit (SD) and working capital

Objection: Some of the stakeholders have submitted that the interest payable on security deposit is accounted at 6%. S.D forms a part of working capital. But full 10.25% interest is accounted in the balance sheet for the entire working capital requirements.

Response of the Petitioner: Interest on security deposit is as per provisions of the Security Deposit Regulations. The working capital requirement and interest thereon are calculated as per the terms and conditions of Tariff Regulations.

Commission View: *The interest on working capital and interest on Security Deposit are allowed as per relevant GERC Regulations.*

41. Differential Bulk Supply Tariff (BST) not fair

Objection: Some of the stakeholders have averred that BST is acting in contravention to the provisions of Electricity Act, 2003. The GUVNL is charging more from some DISCOMs to subsidise other DISCOMs. The PGVCL is supplying power at lower rate than UGVCL, whose agricultural consumption is higher than that of

PGVCL. This implies that PGVCL is a sick utility. The rates for MGCVL and DGCVL are higher than those of UGVCL and PGVCL.

Response of the Petitioner: The petitioner has submitted that the four DISCOMs are configured on a Zonal basis. About 70 to 80% of a DISCOM's costs are for power purchase. Power purchase cost plays a major role in the ARR of a DISCOM. The consumer profiles and consumption profiles differ from DISCOM to DISCOM; so also their revenue earning capabilities. It is necessary to build a mechanism in the projections to bring them onto a level playing field. This is sought to be achieved through the differential bulk supply tariff mechanism. This is considered necessary to keep the retail tariff of the four DISCOMs uniform. The performance of the DISCOMs is monitored by the GERC.

Commission's View: *Differential BST may be necessary to keep the retail tariffs uniform across the state for some more time till the consumer mix in all the DISCOMs are at a comparative level.*

42. Agricultural Subsidy not fully met by Government

Objection: Some of the stakeholders have represented that the Agriculture Subsidy is not met in full by the Government. Consumers, other than agricultural, bear the brunt.

Response of the Petitioner: The petitioner has submitted that the tariff for all categories of consumers is well within +/-20% over the average cost of supply and is in line with the Tariff Policy. Industrial and Commercial categories of consumers are provided a better quality of supply. They are supplied power even during peak hours. So they are charged at a higher rate than the agriculture consumers, who are supplied only 8 hours of power a day and are not supplied power during peak hours.

Socio economic conditions of certain classes of consumers prevent radical rationalisation of tariffs.

Commission's View: *The objection and the response are noted. The State Government is paying substantial subsidy to the distribution companies towards agriculture.*

43. Arrears of revenue

Objection: Some stakeholders have suggested that the Commission may review the arrears of the various DISCOMs to reduce the extent of disparity of BST in the DISCOMs.

Response of the Petitioner: The petitioner has submitted that the amount of the arrears is not an ARR item, as arrears are not revenue. Revenue is recognised once assessment is made and bill is raised. If payment is not made by consumer, the amount is in arrears and cannot be adopted to revenue. It is a balance sheet item.

The cost implication of arrears is considered in the ARR calculation, i.e., delayed payment charges collected from defaulting consumers are accounted for in Non Tariff Income as Delayed Payment Charges. Interest on working capital, in respect of receivables and arrears, is also accounted. Hence, income and expenditure aspects of arrears have already been accounted for in the computation of the ARR. The petitioners are making all efforts to reduce the arrears.

Commission's View: *The objection and the response are noted.*

44. Performance should determine the allowability of Expenses:-

Objection: Some of the stakeholders have queried whether the accounts of the petitioner are sacrosanct. Factors, like performance of the company and also whether the consumers' interest was properly served in the expenditure incurred, have also to be considered in determining the propriety of the expenses qualifying for tariff determination. The accounts of the company are not ipso-facto binding on the Commission in this regard.

Similarly, the Commission needs to examine the question of applicability or admissibility of reasonable return as per the Regulations vis-à-vis the efficiency, economical use of the resources, good performance and the interest of the consumer .You earn only if you deliver, is the new paradigm..

Response of the Petitioner: The petitioner has submitted that audited annual accounts upto FY 2009-10 has already been submitted to the Commission.

Commission's View: *The Commission allows the expenses on prudence check. The performance is also taken into consideration, while determining the tariffs.*

45. Sneering attitude towards consumers

Objection: Some of the stakeholders have stated that the attitude of the utilities is to dismiss the objections of the stakeholders with contempt sneering and a patronising attitude.

Response of the Petitioner: No comments made

Commission View: *The commission hopes that the licensee will take sincere steps to alter the perception of the objectors towards the licensee.*

46. Poor Voltage Conditions

Objection: Some stakeholders have complained that, under prevalent conditions of low voltage, the motors have to be rated for a higher capacity to deliver the power required by the consumer. Agricultural consumers are penalised heavily for exceeding the load, based on the nameplate rating of the motor even though the motor delivers a far lesser quantity of water than what the nameplate shows. So, fixed charges should not be applied under low voltage conditions, or appropriate correction for low voltage should be applied.

At the tail end of feeders, there should be no inspection and penalisation on the capacity of the motor or some other such mechanism needs to be put in place to avoid hardship to consumer.

Response of the Petitioner: The petitioner has submitted that agricultural feeders have been separated from other rural feeders. Further, with increase in generation capacity, the voltage conditions have improved considerably. As the pumpsets are of submersible type, name plate reading cannot be seen. Hence, for verifying connected load, actual technical parameters are measured with an accucheck meter. If measured capacity is more than contracted value, action is taken under Section 126 of EA, 2003.

Commission's View: *The objection and response are noted. The licensee needs to avoid low voltage at the tail end feeders through proper reactive power management, etc., so that consumer may not face the situation mentioned.*

47. Penal charging on FPPPA amounts to over-compensation

Objection: Some stakeholders have contended that FPPPA is a pass through charge. It is not fair or legal to overcharge at double the same under Section 126 or 136 of EA, 2003.

Response of the Petitioner: The petitioner has submitted that FPPPA is an integral part of tariff and, therefore, while assessing bills under Sections126 or 136 of EA, 2003, applicable FPPPA charges are applied.

Commission's View: *The Objection and the response are noted.*

48. Power Factor (PF) Penalty to be levied on recorded demand

Objection: Some of the stakeholders have suggested that the power factor penalty should be on recorded demand, and not on billing demand. Otherwise, it will impose undue burden on the CPP consumer.

Response of the Petitioner: The petitioner has submitted that power factor penalty/ rebate is levied on energy charges only.

Commission's View: *The objection and the response are noted.*

49. Electronic meters are suspect

Objection: Some of the stakeholders have complained that the electronic meters are suspect. The software can be doctored. The Commission may pick-up random samples and get them checked for conformance to specifications to ensure public trust in the metering process.

Response of the Petitioner: The petitioner has submitted that meters are supplied, as per specification / contract conditions, issued under the provisions of relevant Indian Standards. No oral specification is conveyed to any of the suppliers.

Commission's View: *The apprehension of the objector and the response of the petitioner are noted. If any specific instance of malfeasance comes to light, the meters could be got tested. Electronic meters are being used by all the utilities.*

50. Assessment of 'proportional units'

Objection: Some of the stakeholders have mentioned that the consumer is harassed by the expression "proportionate units" at para 10 (II) in Supply Amendment dated 25th September, 2006. This amount is driving SMEs to their doom. Pulse loads like a welding transformer are equated with production machinery which runs 24x7 and the proportionality expression is applied and lakhs of rupees are billed, which could be only a few hundreds normally.

Response of the Petitioner: The petitioner has submitted that under the connected load based tariff, "Consumers can connect as many loads as contracted'. However, in case, where units consumed are duly metered, no additional units are worked out, either as per ABCD formula, or on proportionate basis.

Assessment on the basis of proportionate units is carried out only when the units consumed are duly metered and the connection is found to be utilised otherwise than for authorized purpose or at an unauthorized place.

Commission's View: *The objection and the response of the petition are noted.*

51. Security deposit is very high

Objection: Some of the stakeholders have stated that the load factor assessed for levying security deposit is unwarranted, since high load factor materialises only after operations are stabilised. Thus, it increases starting up costs steeply. A 400 volts consumer has to pay up charges extending up to 11 KV facilities and also of GETCO, based an unconvincing interpretation of "works carried out on behalf of DISCOMS"

Response of the Petitioner: The petitioner has submitted that security deposit levy is as per the provisions of the S.D Regulations, notified by the Commission.

Commission's View: *The objection and the response are noted. The security deposit has to be collected as per the applicable Regulation.*

52. Industrial activity treated as commercial

Objection: some stakeholders have raised the issue that a number of industrial activities like lasers and diamond cutting, etc., and even ACs in process industries, are being termed as commercial and charged accordingly on the plea that there is no motive power involved, though they use motive power. It is necessary that the term 'motive power' be substituted by the term 'industrial power' to avoid legal disputes.

Industrial consumers are forced to wire their premises for industrial and lighting circuits separately, leading to wastage of capital. There should be one rate for one premise. The rate could be a weighted average cost of lighting and motive power.

Response of the Petitioner: No comment made.

Commission's View: *This issue has been addressed by the Commission while rationalizing the tariff structure in this order.*

53. Unwarranted penal action

Objection: Some stakeholder have stated that Supply Code may incorporate a provision that, if any penal action is contemplated for use of premises for a category of use other than originally authorized, such an action should arise only if such use is for a purpose for which higher tariff is applicable.

Response of the Petitioner: No response

Commission's View: *The petitioner may submit his views on the issue raised by the objector separately.*

54. New applications and feasibility

Objection: Some stakeholders have stated that loads are not being released, on the plea of inadequate transformer capacity. The capacity of the transformer to cater to additional connections should be based on the demand registered on the transformer rather than the extent of connected load.

Response of the Petitioner: The petitioner has submitted that, under the connected load based tariff system, a consumer can connect as many loads as contracted and may put on the entire load at his choice. So connected load is taken into view to determine the feasibility of additional loading in the case of LT application. For HT, the actual maximum load recorded is taken into consideration. Diversity reduces as we go down the network.

Commission's View: *The petitioner should not deny any consumer for lack of capacity of distribution transformers. Transformer capacity has to be enhanced.*

55. GUVNL accounts need scrutiny

Objection:- Some stakeholders have raised the issue that the burden the administrative expenses or trading margin of GUVNL is passed on to the DISCOMs as administrative and management cost. They need regulatory scrutiny.

Response of the Petitioner: The petitioner has submitted that the servicing of the various liabilities allocated to GUVNL at the time of unbundling and administrative cost of managing power purchases and funds portfolio is charged to DISCOMs as margin in the power sale rate.

Commission's View: *The objection and responses are noted. The Commission scrutinizes the GUVNL costs.*

56. Bank Guarantee as security deposit

Objection: Some of the stakeholders have complained that utilities are refusing to accept bank guaranties as security deposit. They also delay the refund of the Security Deposits (SD). While consumers are dealt with a heavy hand for any default, the defaults of the utility go unpunished. Consumers are kept in the dark about the provisions regarding deposits. The estimates are hazy. Refunds are not made in cash, but adjusted in future bills and the issue drags on for more than six months. The interest on S.D should be checked for accuracy to avoid undue enhancement in tariff.

As per GERC notification 5 of 2010 and GERC Security Deposit Regulations notification No. 8 of 2005, security deposit is acceptable as B.G. from consumers having contract demand of one MVA and above.

Response of the Petitioner: Annual review is made and if the security deposit is found in excess, it is adjusted in future bills.

In the case of Open Access or CPP consumers, any excess S.D. is adjusted in future bills up to six months and if any further residual S.D. is there, it is refunded. Existing security deposit is shown in the energy bill.

Commission's View: *Bank guarantee should be accepted for demand of one MVA and above.*

57. Deposit works and final bills

Objection: Some stakeholders have complained that there are inordinate delays in completion of deposit works and in settling the final bills, causing loss to the consumers. A deterrent penal interest needs to be imposed on licensees to curb such delays, or interest income notional or income on delayed deposits should be accounted in ARR.

Response of the petitioner: The pettiioner has submitted that, generally, there is some delay in collecting the information on actual material used and labour deployed in finalisation of such bills. The matter was discussed in the 10th Eelectricity Supply Code Review Panel (ESCRP) and it was decided that such bills should be finalised within 120 days from the date of release of the connection.

Commission's View: *The licensee should see that accounts are settled promptly on completion of works and any amount due is refunded without delay. Any delay will have to be viewed seriously.*

58. Adhesion agreement illegal

Objection: Some of the stakeholders have stated that GERC order No.6 of 2010, on Open Access is being nullified by the utilities by getting an adhesion undertaking signed by the consumers. This bipartite undertaking lacks the Commission's approval/scrutiny and is a breach of law.

Response of the Petitioner: The petitioner has submitted that Commercial settlement of Open Access users, who are also consumers of the DISCOM, is made under the Intrastate ABT order No.3 of 2006. Any excess drawl is taken as supplied by the DISCOM and billed as per applicable tariff.

The Intra-State ABT Order No. 10 and Open Access Regulations, 2011 do not provide applicability of UI rates to Open Access consumers who are also Consumers of the DISCOM for excess/under drawl. There is no mechanism under the State ABT for any intra DISCOM. UI pool account to enable payment/receipt of UI charges to/from the consumers.

As regards the undertaking sought by DISCOMs from consumers availing power through short-term Open Access, it is necessary for the DISCOMs to take care of situations wherein such consumers take supply from DISCOM during the day and then for night supply they go outside, where they can get cheaper power.

Commission's View: *The objection* and *the response are noted. The licensees and the Open Access consumers should be fair towards each other.*

59. Selective application of judgements

Objection: Some of the stakeholders have submitted that the judgements of APTEL are applied in a limited way, even when there is a general scope for application for benefit to the larger number of consumers who may not have chosen to go to the Tribunal.

Response of the Petitioner:- The petitioner has submitted that orders of any judicial Fora are either accepted or challenged, based on merit. If the accepted judgement is general in nature, it is implemented.

Commission's View: *The objection and response are noted.*

60. Category-wise, voltage-wise cost-to-serve

Objection: Some stakeholders have pointed out that Section 61 of EA, 2003 is not recognized. Category-wise and voltage level-wise cost- to- serve and the progress in respect of reducing cross subsidatition are not reported. It is not enough to consider pooled or average cost of supply. Irrespect of adoption of tariff, the Commission is requested to call for this information.

Response of the Petitioner: The petitioner has submitted that cost-to-serve report for 2009 -10 is under preparation and will be submitted very soon.

The National Tariff Policy mentions the need for rationalisation of category-wise tariffs, such that it does not cross +/- 20% over the average cost of supply. But even in this, there are practical and socio-economic difficulties. However the proposed tariff for all categories is within the limit off NTP. The deficiencies in quality of supply justify category-wise differentials in tariffs.

Commission's View: *The petitioner should expedite the COS study. There needs to be a progressive shift in reduction in cross subsidy.*

61. Connectivity to open access customers

Objection: Some stakeholders have pointed out that the connectivity conditions from EPP / SPV / MPP and co-generation plants are hazy, leading to delays and inconvenience. Tariffs for such consumers should not be exorbitant, but based on cost of service.

Response of the Petitioner: Regulation of Intra-State Open Access Notification No. 3 of 2011 govern the connectivity to open access customers.

Commission's View: *The objection* and *response are noted.*

62. HTP-IV tariff is inconsistent and irrational

Objection: Some of the stakeholders have submitted that HTP IV tariff needs to be actively promoted. The percentage increase for HTP IV proposed is much higher than that proposed for all other categories. The permissible daytime drawals for maintenance should be raised to 25% of contract demand and 20% of consumption. Tariff should not be fixed on the basis of full fixed cost recovery for night-time use in HTP IV & LTP IV tariffs. The penalty for default should be on the basis of the higher cost of power purchases during the relevant slot of the whole day for temporary tariffs.

Response of the Petitioner: the petitioner has submitted that since the energy charge for HTP-IV is low compared to others, some additional increase is proposed. The permissible daytime demand cannot be increased further. Fixed charges need to be recovered in full, as otherwise, it will amount to discrimination against other consumers within the same class.

Commission's View: *The objector's view is noted. The Commission has taken various relevant points into consideration and determined an equitable and balanced tariff.*

63. Tariff hike only for non-agricultural and other than BPL categories is not fair

Objection: Some of the stakeholders have pointed out that BPL and agricultural consumers are not considered for tariff hike. This is not proper unless the Government pays upfront subsidy. This is not fair to other consumers. The level of cross subsidisation is increasing.

Response of the Petitioner: The petitioner has submitted that agricultural subsidy is fixed at Rs.1100 crore by the State Government and is distributed among DISCOMs, in proportion to the unmetered category consumers.

Commission's View: *The objection and the response are noted. Apart from cost-to-serve there are many factors that need to be kept in view in Tariff determination, to the extent feasible. Cross-subsidy, to support certain class of people, is a common practice.*

64. Over-spending by DISCOMs

Objection: Some of the stakeholders have stated that the truing up shows over-spending by DISCOMs during 2009-10. Despite recovery of FPPPA, the gap of all the DISCOMs amounts to Rs. 309 crore and should not be allowed.

Response of the Petitioner: The petitioner has submitted that the revenue gap is arrived at, following the process of sharing mechanism, allowing recovery in FY 2011-12. Revenue shown in truing is inclusive of FPPPA charges.

The FPPPA formula does not cover power purchase from other sources.

Commission View: *The objection and the response are noted. The Commission has considered the increase in costs after prudence check of the expenses.*

65. Revision of FPPPA at 61 Ps/unit

Objection: Some stakeholders have pointed out that, in the ARR for the 2nd control period, strangely the petitioners have taken 61ps/unit as confirmed FPPPA charges for revision of tariff. FPPPA is variable and cannot be linked to tariff in this manner.

Response of the Petitioner: The petitioner has submitted that actually, the average FPPPA for 2009-10 was 61 paisa. It is proposed to shift the base year for calculation of FPPPA to Financial Year 2009-10.

Commission View: *The FPPPA of 61 Ps/unit is what is being collected and is considered as a part of present revenue.*

66. Release of agricultural connections

Objection: Some stakeholders have stated that there is no data of the extent of un-metered agricultural connections. 2.80 lakh farmers are waiting since 1994 for connection. Illegal connections are provided by DISCOM staff under the pretext of farm houses. There should be a time bound programme over 5 years to release all pending connections.

Response of the Petitioner: The petitioner has submitted that it is difficult to get data of the proportion of unmetered connections, because there are connections that have meters but are charged under un-metered category. All new connections are metered, 4000 new connections are being released every year since 2007-08, and are all under metered tariff.

The Company has planned to release 4000-6000 agricultural connections per year in the ensuing control period.

Commission View: *The utilities are directed to clear all pending applications at the earliest.*

67. Tariff hike across the board unfair to smaller consumers

Objection: A number of stakeholders have objected to the tariff increase. It is stated that increase in tariff by 25 Ps/unit in all categories, except agriculture and BPL, is irrational and is a heavy burden on consumers with consumption of less than 100 units/month and is against the NTP and beyond the paying capacity of consumers.

Response of the Petitioner: The petitioner has submitted that for the past several years, the tariff increases allowed are minimal. The intention in uniform hike of 25 Ps/unit is to reduce the cross-subsidy within the same category and maintain overall cross-subsidy level intact.

Commission's View: *The Commission has endeavoured to allow a reasonable and balanced tariff in this order keeping in view practical and operational aspects and constraints.*

68. Consumer forums

Objection: Some of the stakeholders have mentioned that the performance of Consumer Forums and the Ombudsman is biased towards the licensees. The petitioners have not taken action to appoint a Chairman.

Response of the Petitioner: The petitioner has submitted that the Consumer Grievance Redressal Forum gives due hearing to the grievances and they are redressed fairly. The Forum is being reconstituted by seeking applications through a public notice for the appointment of the chairperson.

Commission's View: *The utilities are directed to appoint members and chairman on priority, as per guidelines issued by Ministry of Power, Government of India.*

69. L&T meters

Objection: some of the stakeholders have complained that the appearance of code number in L&T meters for industrial consumers is treated under Section 135 of EA, 2003 and huge amounts are extorted from the consumers.

Response of the Petitioner: It is sub-judice; hence, no comment.

Commission's View: *The Commission has noted the objection and the response.*

70. Meter rent

Objection: Some of the stakeholders have complained that the meter charges are collected when the old meters are replaced with new ones. If the cost is recovered so, meter rent cannot be charged.

Response of the Petitioner: The petitioner has submitted that the meter rent is recoverable under the provisions of Licensees Power to Recover Expenditure incurred in Providing Supply and Other Miscellaneous Charges Regulations, 2005. No charges are recovered for replacement of old meters.

Commission's View: *The objection and the response are noted.*

71. Reduction of cross subsidy

Objection: Some of the stakeholders have raised the issue of cross-subsidy. It is stated that the tariff increase is not based on cost-to-serve and the need is to reduce cross-subsidy. Other classes of consumers are forced to bear the burden of BPL/ agricultural consumers. The agricultural subsidy is capped at Rs.1100/- crores ever since Oct. 2000 and all increases are passed on to other consumers. Details of payment of the subsidy and how much is pending is not known.

Response of the Petitioner: The petitioner has submitted that Cost-to-Serve Report for the Financial Year 2009-10 is under preparation. The tariffs are within the limit of +/- 20% of average cost as per NTP.

Commission's View: *The Commission has noted the objection and the response.*

72. PF penalty to be based on reactive energy

Objection: Some of the stakeholders have suggested that PF penalty/reactive energy charges be computed, based on reactive energy, instead of PF.

Referring to case No. 862/2006 order dated 06/05/2006, page 39 it is observed that charges of reactive energy, levied by GETCO/ SLDC, as well as PGVCL, are based on PF penalty provisions, as per the Tariff Order, without referring to the referred provisions. It is suggested that, for consumers with CPP in parallel, bills and accounting should be done by GETCO/SLDC.

Response of the Petitioner: The petitioner has submitted that CPPs are also consumers of DISCOMs. They export power and also draw reactive energy from the grid. They are billed on average monthly P.F basis, as per HTP tariff. The reactive energy drawn during export is for their plant requirement and, therefore, is governed by the applicable tariff. As regard billing for reactive energy by SLDC, the objector may represent it to the committee formed under the ABT orders.

As regards the suggestion for billing based on reactive energy, instead of P.F, the Regulations stipulate a P.F of 0.9 or more. RKVAH billing will be more complex than this. RKVAH billing may induce consumers to over-compensate. The same rate of RKVAH unit for all RKVAH consumers may not be fair for consumers drawing marginal RKVAH units.

Commission's View: *The issue raised by the objector (s) and response from the utility are noted.*

73. Consumer contribution

Objection: Some stakeholders have stated that all expenses under Normal Development work is 100% recovered from the consumer. There should be no question of any capital amount being booked under this scheme.

Response of the Petitioner: The petitioner has submitted that Table 13, depicting the capital expenditure in the petition, clearly shows the extent of consumer contribution under CAPEX. Against CAPEX of Rs. 654 crore for FY 2009-10, the consumer contribution is Rs. 123 crore (18%).

Commission's View: *The objection* and *the response are noted.*

74. Sales have reduced, revenue has increased

Objections: Some of the consumers have pointed out that it can be seen from the figures for 2010-11, that the sales of almost all categories have reduced in terms of units, but the revenue has increased.

Response of the Petitioner: It is submitted by the petitioner that the increase in revenue is mainly due to FPPPA. The Commission has approved much less i.e., only 10 Ps/kWh by way of FPPPA, instead of the actual of Rs 67 Ps/kWh.

Commission's View: *The objection* and *response are noted.*

75. Distribution losses and employee costs are controllable

Objection: Some stakeholders have pointed out that the revenue gap for FY 2009-10 has been created mainly due to increase in distribution losses and employee cost, which are described as uncontrollable. This is unacceptable.

Response of the Petitioner: The petitioner has submitted that distribution losses are considered as controllable costs only. So, deviation in power purchase cost, consequent to increase in distribution losses, is absorbed. It is net gap after treatment of gain/loss due to all factors.

Commission's view: *The distribution losses are controllable. Employee cost, in some cases, where payment of wage increases due to pay revision, etc., is considered uncontrollable.*

76. Load factor and diversity factor need revision

Objection: Some of the stakeholders have suggested that the load factor and diversity Factor in supply code should be revised in the light of energy efficient equipment now available.

Response of the Petitioner: The petitioner has submitted that this issue can be reviewed in the supply code review panel.

Commission's View: *The load factor and diversity factor enable assessment of consumption realistically with regard to the type of industry. There is a need to reassess them. The licensee should come up with a proposal soon.*

77. More than one meter in single premises

Objection: Some stakeholders have suggested that if more than one meter is installed in single premises, the sum of the connected load should be taken as contracted load.

Response of the Petitioner: The petitioner has submitted that the connections are released with specific connected load. If this suggestion is implemented, the consequent variation in load in use by the consumer may affect the revenue of the licensee.

Commission's View: *This requires further examination. This will be considered and appropriate decision taken.*

78. Average cost of supply for HT consumers is not fair

Objection: Some of the stakeholders have pointed out that the methodology adopted in determination of average cost of supply is unfair to a consumer like railways, operating at a very low T & D loss level.

Response of the Petitioner: The petitioner has submitted that the average cost of supply during the year is computed by dividing the ARR of the licensee for recovery through the retail tariff by the total energy sales forecast for the year.

Commission's View: *The objection and response are noted.*

79. PF incentive

Objection: Some of the stakeholders have requested that power factor incentive rate should be restored to 1 %.

Response of the Petitioner: The petitioner has submitted that the rate of 0.5 % was fixed by Commission in Review Petitions 1,2,3 of 2007, filed by Western Railways.

Commission's View: *The objection and response are noted.*

80. Interest cost capital works for agricultural connection

Objection: Some stakeholders have suggested that the Commission should direct the state Government to bear the burden of increased interest cost on account of creating assets for the agricultural sector. This will facilitate reduction of tariffs to other sectors.

Response of the Petitioner: The petitioner has submitted that the Commission may take note of this.

Commission's View: *The Commission directs the petitioner to submit the details of source of funding for agricultural infrastructure.*

81. FCA formula nontransparent

Objection: Some stakeholders have mentioned that the fuel adjustment formula is not transparent and seems dysfunctional. There is a continuous increase in tariff. The abbreviation L.A in the formula is the weighted average of the approved level of T& D losses for the four DISCOMs for a particular quarter.

Response of the Petitioner: The petitioner has submitted that the FCA charges are recovered as per the formula approved by the Commission. The FPPPA is calculated every quarter and the same is posted on the company's website.

Commission's View: *The FPPPA formula has been approved after due process and after detailed deliberation. Any changes can be made after a similar exercise and review. This will be examined.*

82. Fuel cost and tariffs

Objection: Some stakeholders have complained that the tariffs are not reduced in line with the fall in the fuel cost from 134 dollars to 34 dollars. The company has unduly profited from this.

Response of the Petitioner: The petitioner has submitted that the power tariff regime in Gujarat has been fairly stable for several years as increases in costs were absorbed by the petitioners. It is not possible to absorb all the increases in costs. All the basic fuels have witnessed increases all over the world. So, tariff hike, by way of FPPPA, is inevitable.

Commission's View: *The objection and response are noted.*

83. Legal help for consumers

Objection: Some of the stakeholders have requested that there are numerous court cases for or against licensee, due to factors like extractive attitude of the concerned staff and ambiguity of rules or actions of licensee, devoid of legality. There is undue enhancement in cases like:

(1) Reconnection charges levied without disconnection,
(2) Payment to GETCO,
(3) Development charges, and
(4) Recovery of parallel operation charges etc.

The utilities fight court cases with public money, which cannot be matched by the poor consumers. Legal expenses of licensee need to be checked. GERC should see that consumer guidance legal cells should be formed for presenting consumer cases (as in the case of Karnataka ERC's Consumer Advocacy Cell)

Response of the Petitioner: The petitioner has submitted that reconnection charges are not recovered without disconnection. Parallel Operation Charges (POC) are charged at the rates determined recently by GERC. No 'Development Charges" are levied by petitioner. The issue of payment to GETCO' needs clarification from the objector.

Commission's View: *The suggestion of the objector regarding consumer advocacy cell is noted. It needs detailed consideration. The petitioner needs to be more responsive to consumer difficulties and less litigious.*

84. Non-Implementation of Directives

Objection: Some of the stakeholders have pointed out that several directives are not yet complied with.

Response of the Petitioner: The petitioner has submitted that the status of compliance of the directives is given in the petition.

Commission's View: *This is discussed in the Chapter on "Compliance of Directives". The Commission would ensure that all directives are complied with.*

4. Truing up of FY 2009-10

The Petitioner, in its petition for truing up for FY 2009-10, has furnished the actual energy sales, expenditure and revenue for FY 2009-10, based on the audited annual accounts for FY 2009-10. It is submitted that the truing up for FY 2009-10 is based on the comparison of the actual performance of the FY 2009-10 with the approved revised estimate for FY 2009-10 in the Tariff order dated 31st March, 2010 to arrive at the gains / losses.

The Commission has analysed the components of the actual energy sales, expenses, revenue and gains / losses under truing up for FY 2009-10.

The Commission has, however, compared the actuals of FY 2009-10 with the approved ARR for FY 2009-10 in the Order dated 14th December, 2009.

4.1 Energy sales

Petitioner's submission

The petitioner has submitted the category-wise actual energy sales for FY 2009-10. The details are given in the Table below:

Table 4.1: Category-wise actual sales for FY 2009-10

Sl. No.	Particulars	Sales (MU)	
		FY 2009-10 (Approved)	FY 2009-10 (Actual)
A	**LT Consumers**		
1.	Residential	2238	2156
2.	Commercial	837	816
3.	Industrial LT	1162	1256
4.	Public Water Works	286	303
5.	Agriculture	4424	4591
6.	Public Lighting	70	71
	LT Total (A)	**9018**	**9193**
B	**HT Consumers**		
7.	Industrial HT	3715	3839
8.	Railway Traction	-	-
	HT Total (B)	**3715**	**3839**
	Grand Total (A + B)	**12733**	**13032**

Subsequently, PGVCL has submitted the break-up of actual consumption by metered and unmetered agricultural pumpsets amounting to 4591 MU, the consumption furnished by them as actuals for the category. It is submitted that the metered consumption does not reflect the actual consumption due to various factors including unauthorized use of energy.

Commission's Analysis

The Commission, in the Tariff order dated 14th December, 2009, had approved the energy sales of 13084 MU for FY 2009-10. In the Tariff order dated 31st March, 2010, the Commission had considered the revised sales at 12733 MU for FY 2009-10. As against the above, PGVCL has submitted the actual sales of 13032 MU. The actual energy sales are marginally lower by 52 MU compared to the sales approved in the order dated 14th December, 2009.

The Commission approves the energy sales of 13032 MU as detailed in the table below:

Table 4.2: Energy sales approved in truing up for FY 2009-10

(MU)

Sl. No.	Particulars	Approved in the order dated 14th December, 2009	APR for FY 2009-10	FY 2009-10 (Actual)	Approved for truing up
A	**LT Consumers**				
1.	Residential	2238	2238	2156	2156
2.	Commercial	837	837	816	816
3.	Industrial LT	1254	1162	1256	1256
4.	Public Water Works	286	286	303	303
5.	Agriculture	4424	4424	4591	4591
6.	Public Lighting	70	70	71	71
7.	Temporary supply	0	0	0	0
	LT Total (A)	**9109**	**9018**	**9193**	**9193**
B	**HT Consumers**				
8.	Industrial HT	3975	3715	3839	3839
9.	Railway Traction	-	-	-	-
	HT Total (B)	**3975**	**3715**	**3839**	**3839**
	Grand Total (A + B)	**13084**	**12733**	**13032**	**13032**

4.2 Distribution losses

Petitioner's submission

The petitioner has submitted that the actual distribution losses for FY 2009-10 are 34.38%, as against the approved level of 31.50% in the revised estimate for FY 2009-10. The petitioner submitted that the distribution loss is highly influenced by the loss of agriculture category. It is submitted that during the first half of FY 2009-10, higher hours of power supply was given to agriculture category, which has resulted in more off take, but no corresponding increase in the sales figure. It is also submitted by the petitioner that as per MYT Regulations, the distribution losses need to be treated as controllable and any gain or loss has to be dealt with accordingly as per provisions of MYT Regulations.

Commission's Analysis

The PGVCL has contended that the actual distribution losses are 34.38% for FY 2009-10, as against 31.50% considered in APR for FY 2009-10 in the order dated 31st March, 2010 and 28% approved in ARR order dated 14th December, 2009.

The Commission approves the distribution losses at 28% for FY 2009-10 for truing up of FY 2009-10 as given in the Table below:

Table 4.3: Distribution losses approved for truing up for FY 2009-10

(%)

Particulars	Approved in ARR order for FY 2009-10	APR for FY 2009-10	FY 2009-10 (Actual)	Approved for truing up
Distribution losses	28.00	31.50	34.38	28.00

4.3 Energy requirement

Petitioner's submission

Based on the energy sales for FY 2009-10 and the actual distribution losses for FY 2009-10, the petitioner has submitted the energy requirement for FY 2009-10, as given in the table below:

Table 4.4: Energy requirement and Energy balance as submitted by PGVCL for FY 2009-10

Sl. No.	Particulars	Unit	FY 2009-10 (Approved in APR)	FY 2009-10 (Actual)
1.	Energy sales	MU	12733	13032
2.	Distribution losses	MU	5855	6826
		%	31.50	34.38
3.	Energy requirement	MU	18588	19858
4.	Transmission losses	MU	825	999
		%	4.25	4.79
5.	Total energy to be input to transmission system	MU	19413	20857
6.	Pooled losses in PGCIL system	MU	332	310
7.	**Total energy requirement**	**MU**	**19745**	**21167**

Commission's Analysis

The PGVCL has computed the energy requirement based on the actual distribution losses of 34.38% and actual energy sales of 13032 MU and transmission loss of 4.79%.

The Commission had approved the distribution losses of 28% in the order dated 14th December, 2009 and in the truing up for FY 2009-10 and the transmission loss of 4.79% in the truing up for FY 2009-10 as arrived by SLDC for FY 2009-10.

The Commission has computed the energy requirement with the distribution loss of 28% and transmission loss of 4.79% for FY 2009-10, as given in the Table below: The Table also highlights the **Commission's approval of the energy requirement of 19321 MU for truing up for FY 2009-10**

Table 4.5: Energy requirement approved by the Commission for truing up for FY 2009-10

Sl. No.	Particulars	Unit	Approved in ARR dated 14th December 2009	Actuals submitted by PGVCL FY 2009-10	Actuals approved FY 2009-10
1.	Energy sales	MU	13084	13032	13032
2.	Distribution losses	MU	5088	6826	5068
		%	28.00	34.38	28.00
3.	Energy requirement	MU	18172	19858	18100
4.	Transmission losses	MU	807	999	911
		%	4.25	4.79	4.79
5.	Total energy to be input to transmission system	MU	18978	20857	19011
6.	Pooled losses in PGCIL system	MU	272.43	310	310
7.	**Total energy requirement**	**MU**	**19251**	**21167**	**19321**

4.4 Power purchase cost

Petitioner's submission

The petitioner has submitted that the company has been allotted share of generation capacities as per the scheme worked out by GUVNL.

During the year, based on the requirement of power, the generation capacities have been allocated to PGVCL. Based on the allocation, if there is surplus power, the distribution company sells the power to other distribution companies. On the other hand, if there is a deficit of power, the same is purchased from other distribution companies.

The PGVCL has submitted the actual power purchase cost during FY 2009-10, along with revised power purchase cost considered in APR for FY 2009-10, as shown below:

Table 4.6: Power purchase cost claimed by PGVCL for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved in APR)	FY 2009-10 (Actual)
Total power purchase cost	4541	4883

It is submitted by PGVCL that the variation in the approved cost in APR and the actual power purchase expenses is on account of various reasons. These include:, change in cost of power, change in quantum of power purchased, consequent changes in the transmission charges payable and GUVNL cost allocation.

In addition to the above, there is an incidence of higher power purchase cost on account of the higher distribution losses, as compared to the losses approved by the Commission.

It is further submitted that variation in power purchase expenses is due to variation in the cost and quantum and is an uncontrollable factor. Accordingly, any gain or loss on this account is to be entirely passed on to the consumers. However, the increase or reduction in quantum of power purchase and power purchase expense due to variation in distribution loss is a controllable factor; which would result in gain or loss under MYT Regulations and is dealt with accordingly.

Commission's Analysis

The Commission has examined the actual quantum of power purchased and the power purchase cost during the year FY 2009-10, based on the actual energy sales and the distribution losses submitted by PGVCL. The sales and the quantum of power purchase and the power purchase cost are as per the audited annual accounts for the FY 2009-10.

The power purchase cost, as per the audited annual accounts for FY 2009-10, is Rs. 488286 lakh.

Table 4.7: power purchase cost approved by the Commission for truing up for FY 2009-10

Particulars	Approved in ARR order dated 14th December 2009	Actuals as submitted by PGVCL	Approved for truing up for FY 2009-10
Total power purchase cost (Rs. crore)	4494.88	4883.00	4882.86

The Commission, accordingly, approves the power purchase cost of Rs. 4882.86 crore as per the audited annual accounts.

4.4.1 Gain / (loss) due to distribution losses

The Commission has approved lower distribution loss at 28% for FY 2009-10 against the actual loss of 34.38%.

The total gains / (losses) on account of higher distribution loss are computed in the Table below:

Table 4.8: Gains/(losses) on account of distribution losses for FY 2009-10

Sl. No.	Particulars	Unit	Actuals submitted by PGVCL FY 2009-10	Actuals approved for truing up for FY 2009-10
1.	Energy sales	MU	13032	13032
2.	Distribution losses	MU	6826	5068
		%	34.38	28.00
3.	Energy requirement	MU	19858	18100
4.	Transmission losses	MU	999	911
		%	4.79	4.79
5.	Total energy to be input to transmission system	MU	20857	19011
6.	Pooled losses in PGCIL system	MU	310	310
7.	Total energy requirement	MU	21167	19321
8.	Gain / (loss) due to distribution losses	MU	(875)	(1758)
9.	Average cost of power purchase	Rs./kWh	2.307	2.307
10.	Gain / (loss) due to distribution losses	Rs. crore	(202)	(405.57)

As can be seen from the above, the total loss on account of higher distribution losses is to the tune of Rs. 405.57 crore. The loss is categorised as on account of controllable factors.

Based on the above, the gain / (loss) on account of power purchase expenses, is shown below:

Table 4.9: Approved gain / (loss) – power purchase expenses for truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 approved in ARR dated 14th December 2009	FY 2009-10 (Actuals)	Gain / (loss) due to controllable factors	Gain / (loss) due to uncontrollable factors
Total power purchase cost	4494.88	4882.86	(405.57)	17.59

4.5 Fixed charges

4.5.1 Operation and Maintenance (O&M) expenses for FY 2009-10

The PGVCL has claimed Rs. 420.00 crore towards actual O&M expenses in the truing up for FY 2009-10 against Rs. 382.00 crore considered in the APR for FY 2009-10 as detailed in the table below:

Table 4.10: O&M expenses claimed in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 APR	FY 2009-10 (Actual)	Deviation
1.	Employee cost	273.00	390.00	(117.00)
2.	Repairs & Maintenance expenses	92.00	75.00	17.00
3.	Administration & General charges	62.00	75.00	(13.00)
4.	Other debits	3.00	7.00	(4.00)
5.	Extraordinary items	-	-	-
6.	Net prior period expenses (Income)	-	5.00	(5.00)
7.	Other expenses capitalized	(48.00)	(132.00)	85.00
8.	**Total O&M expenses**	**382.00**	**420.00**	**(37.00}**

Petitioner's submission

The PGVCL has submitted that the O&M expenses consist of the following elements:

- Employee expenses
- Repairs and Maintenance expenses
- Administration and General expenses

The petitioner has also submitted that the following items are included in the O&M expenses as per the directive issued by the Commission. These items are:

- Other debits
- Extraordinary items
- Net prior period expense / (income)
- Other expenses capitalized

The PGVCL has compared the O&M expenses actually incurred during FY 2009-10 with the expenses approved by the Commission in the Annual Performance Review (APR) for FY 2009-10 and arrived at a loss of Rs. 37.00 crore as detailed in the table below:

Table 4.11: O&M expenses and gains / losses claimed in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 (APR)	FY 2009-10 (Actual)	Gain (loss) due to controllable factor	Gain (loss) due to uncontrollable factor
1.	Employee cost	273.00	390.00	-	(117.00)
2.	Repairs & Maintenance expenses	92.00	75.00	17.00	-
3.	Administration & General charges	62.00	75.00	(13.00)	-
4.	Other debits	3.00	7.00	-	(4.00)
5.	Extraordinary items	-	-	-	-
6.	Net prior period expenses (Income)	-	5.00	-	(5.00)
7.	Other expenses capitalized	(48.00)	(132.00)	-	85.00
8.	**Total O&M expenses**	**382.00**	**420.00**	**4.00**	**(41.00)**

The O&M expenses are discussed component-wise in the following paragraphs.

4.5.2 Employee cost

The PGVCL has claimed Rs. 271.00 crore towards actual employee cost in the truing up for FY 2009-10. The employee cost approved for FY 2009-10 in the Tariff Order of 14th December, 2009 considered in APR for FY 2009-10 and claimed by PGVCL in the truing up are as given in the table below:

Table 4.12: Employee cost claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order dated 14th December 2009	APR order	Claimed in truing up
Employee cost	272.70	272.70	390.00

Petitioner's submission

The PGVCL has submitted that the employee cost was incurred on the basis of the guidelines issued by the competent authorities like the State Government and therefore the entire expenditure estimated is a legitimate expenditure and any variation is purely beyond its control. It is further submitted that the 6% hike approved in the previous MYT order does not compensate the increases due to salary related aspects including hikes, DA increase / mergers etc. PGVCL has requested to consider the variation in employee cost as uncontrollable and accordingly give appropriate treatment for the same. PGVCL has estimated a loss of Rs. 117.00 crore on account of uncontrollable factor.

Commission's Analysis

The PGVCL has compared the actual employee cost of Rs. 390.00 crore incurred during FY 2009-10 with Rs.272.70 crore considered in the APR for FY 2009-10. The employee cost approved in the MYT order and ARR order for FY 2009-10 is the same as considered in the APR order for FY 2009-10. The actual employee cost as per the audited annual accounts for FY 2009-10 is Rs. 389.93 crore. The increase is mainly on account of the impact of Sixth Pay Commission recommendations and due to increase in dearness allowance.

The Commission considers the employee cost as a controllable expense, which is in line with the MYT Regulations. However, in view of the fact that the additional expenses on account of implementation of Sixth Pay Commission recommendations the Commission allows it to be treated as an uncontrollable expense.

The Commission, accordingly, approves the employee cost at Rs. 389.93 crore in the truing up for FY 2009-10.

4.5.3 Repairs & Maintenance (R&M) expenses

The PGVCL has claimed Rs. 75.00 crore towards R&M expenses in the truing up for FY 2009-10. The R&M expenses approved for FY 2009-10 in the Tariff order dated 14th December, 2009 considered in APR for FY 2009-10 and claimed by PGVCL in the truing up for FY 2009-10 are as given in the table below:

Table 4.13: R&M expenses claimed by PGVCL for the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order dated 14th December 2009	APR order	Claimed in truing up
R&M expenses	92.05	92.05	75.00

Petitioner's submission

The PGVCL has submitted that the assets of PGVCL are old and require regular maintenance to ensure uninterrupted operations. It is further submitted that PGVCL has been trying its best to ensure uninterrupted operations of the system by undertaking R&M activities, which are uncontrollable in nature.

The PGVCL has estimated a gain of Rs. 17.00 crore due to controllable factor.

Commission's Analysis

The actual R&M expenses incurred during FY 2009-10 are Rs. 75.09 crore as per the audited annual accounts. The R&M expense is controllable item of expenditure under the MYT Regulations, 2007.

The Commission, accordingly, approves the R&M expenses at Rs. 75.09 crore in the truing up for FY 2009-10.

4.5.4 Administration & General (A&G) expenses

The PGVCL has claimed Rs. 75.00 crore towards A&G expenses in the truing up for FY 2009-10. The A&G expenses approved for FY 2009-10 in the Tariff order dated 14th December, 2009, considered in the APR for FY 2009-10 and claimed by PGVCL in the truing up are as given in the table below:

Table 4.14: A&G expenses claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
A & G expenses	61.79	61.79	75.00

Petitioner's submission

The PGVCL has submitted that the A&G expenses are categorized as controllable expenses in the MYT Regulations and the actual A&G expenses when compared with the approved value, resulted in a loss of Rs. 13.00 crore for FY 2009-10.

Commission's Analysis

The actual A&G expenses as per the audited annual accounts for FY 2009-10 are Rs. 75.16 crore and are higher than what was approved in the Tariff order and considered in the APR for FY 2009-10 by Rs. 13.37 crore.

The Commission, accordingly, approves the A&G expenses at Rs. 75.16 crore in the truing up for FY 2009-10.

The parameters impacting A&G expenses are controllable in nature as specified in the MYT Regulations, 2007. The Commission, accordingly, considers the loss under A&G expenses on account of controllable factor.

4.5.5 Other Debits

Petitioners' submission

The PGVCL has claimed the actual other debits at Rs. 7.00 crore in the truing up against Rs. 3.40 crore approved in the Tariff order dated 14th December, 2009 for FY 2009-10.

Commission's Analysis

The actual other debits as per audited annual accounts for FY 2009-10 are Rs. 6.53 crore.

The Commission, accordingly, approves the other debits at Rs. 7.16 crore in the truing up for FY 2009-10 as these are recognized as part of O&M expenses.

4.5.6 Extra ordinary items

The PGVCL has not claimed anything under extraordinary items in the truing up for FY 2009-10 against nil provision approved in the Tariff order and APR orders for FY 2009-10.

Commission's Analysis

The actual extraordinary items are nil as per the audited annual accounts for FY 2009-10.

4.5.7 Net prior period expenses / (income)

The PGVCL has claimed Rs. 5.00 crore towards net prior period expenses in the truing up for FY 2009-10.

Commission's Analysis

The PGVCL did not estimate prior period expenses / income in the petitions for ARR as well as APR for FY 2009-10. These net prior period expenses / income are recognized through a directive in the Tariff order dated 31st March 2010. The actual net prior period expenses accounted for in the audited annual accounts are Rs. 4.75 crore.

The Commission, accordingly, approves the net prior period expenses of Rs. 4.75 crore in the truing up for FY 2009-10.

4.5.8 Other expenses capitalized

The PGVCL has claimed the actual expenses capitalized at Rs. 132.00 crore in the truing up for FY 2009-10 against Rs. 47.72 crore approved in the Tariff Order for the year FY 2009-10 and considered in the APR order for FY 2009-10.

Commission's Analysis

The Commission has observed that the other expenses capitalized represent the capitalization of employee cost, A&G expenses and interest charges etc as seen from the Schedule 22 of the annual accounts for FY 2009-10. The actual other expenses capitalized are Rs. 132.43 crore as per the audited annual accounts for FY 2009-10. These other expenses capitalized include Rs. 7.60 crore towards capitalization of interest charges. The interest charges capitalized are excluded from this since the interest charges are allowed on normative basis against the actual capitalization of CAPEX.

The Commission, accordingly, approves the other expenses capitalized at Rs. 124.84 crore excluding the interest charges capitalized in the truing up for FY 2009-10.

The total O&M expenses approved in the truing up for FY 2009-10 and the gains / (losses) considered due to controllable and uncontrollable factors are detailed in the table below:

Table 4.15: Approved O&M expenses and gains / loss in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	As per Tariff order FY 2009-10	Approved in truing up	Deviation	Gain /(loss) due to controllable factor	Gain / (loss) due to uncontrollable factor
1.	Employee cost	272.70	389.93	(117.23)	-	(117.23)
2.	Repairs & Maintenance expenses	92.05	75.09	16.96	16.96	-
3.	Administration & General charges	61.79	75.16	(13.37)	(13.37)	-

Sl. No.	Particulars	As per Tariff order FY 2009-10	Approved in truing up	Deviation	Gain /(loss) due to controllable factor	Gain / (loss) due to uncontrollable factor
4.	Other debits	3.40	7.16	(3.76)	-	(3.76)
5.	Extraordinary items	-	-	-	-	-
6.	Net prior period expenses	-	4.75	(4.75)	-	(4.75)
7.	Other expenses capitalized	(47.72)	(124.84)	77.12	-	77.12
	Total O&M expenses	382.22	427.25	(45.03)	3.59	(48.62)

4.5.9 Capital expenditure, Capitalization and Funding of CAPEX

The PGVCL has furnished the capital expenditure at Rs. 638.00 crore in the truing up for FY 2009-10 against Rs. 298 crore considered in the APR for FY 2009-10 (APR). The details are as given in the table below:

Table 4.16: Capital expenditure claimed by PGVCL for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	APR order FY 2009-10	Claimed in truing up FY 2009-10
1.	Distribution schemes	242.00	265.00
2.	Rural Electrification schemes	315.00	302.00
3.	Others	6.00	-
4.	Non-plan schemes	85.00	2.00
5.	Other new schemes	97.00	69.00
		744.00	638.00

Petitioner's submission

The PGVCL has submitted that the actual capital expenditure incurred during FY 2009-10 was Rs. 638.00 crore which is lower than what was approved for FY 2009-10 by Rs. 106.00 crore.

Commission's Analysis

The capital expenditure considered in the APR for FY 2009-10 in the Tariff order dated 31st March, 2010 was Rs. 744.09 crore. The actual capital expenditure incurred is given as Rs. 638.00 crore and this is lower by Rs. 106.09 crore than the CAPEX considered in the APR for FY2009-10. The actual capital expenditure during FY 2009-10 was Rs. 637.75 crore and the actual capitalization was Rs. 654.40 crore as per the audited annual accounts for FY 2009-10.

The Commission, accordingly, approves the capital expenditure at Rs.637.75 crore and the capitalization at Rs. 654.40 crore in the truing up for FY 2009-10.

The CAPEX, capitalization and funding claimed by PGVCL and approved by the Commission are as given in the table below:

Table 4.17: Approved Capitalization and sources of funding in the truing up for FY 2009-10

(Rs. crore)

Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
Capital expenditure	638.00	637.75
Capitalization	654.00	654.40
Less:		
Consumer contribution	123.00	95.85
Grants	83.00	37.58
Balance capitalization	449.00	520.97
Debt @ 70%	314.00	364.68
Equity @ 30%	135.00	156.29

* Note: The PGVCL has considered the consumer contribution and grants to the extent of Rs. 206.00 crore while the actuals are Rs. 133.42 crore as per the audited accounts for FY 2009-10.

4.5.10 Depreciation

The PGVCL has claimed Rs. 216.00 crore towards depreciation in the truing up for FY 2009-10. The depreciation charges approved in the Tariff Order for the year FY 2009-10, considered in the APR order for FY 2009-10 and claimed by PGVCL in the truing up for FY 2009-10 are as given in the table below:

Table 4.18: Depreciation claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Depreciation	218.09	218.35	216.00

Petitioner's submission

The PGVCL has submitted that the amount of depreciation as per actuals is lower than the approved depreciation. PGVCL has applied the rate of depreciation as specified by CERC assuming the asset mix to remain unchanged.

The PGVCL has considered that the depreciation rate as per the CERC Regulations, 2009 and computed the depreciation as detailed in the table below:

Table 4.19: Fixed assets & depreciation computed by PGVCL for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Deviation
1.	Gross block in beginning of the year	3765.00	3765.00	-
2.	Additions during the year (Net)	744.00	654.00	-
3.	Depreciation for the year	218.00	216.00	2.00
4.	Average rate of depreciation	5.28%	5.28%	-

The PGVCL has further submitted that actual depreciation for FY 2009-10 as against the value approved (APR) resulted in a net uncontrollable gain of Rs. 2.00 crore as detailed in the table below:

Table 4.20: Gain / loss due to deprecation claimed in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain / loss due to controllable factor	Gain / (loss) due to uncontrollable factor
Depreciation	218.00	216.00	-	2.00

Commission's Analysis

The opening balance of GFA, the net addition during the year FY 2009-10 and the closing balance of GFA are verified with the audited annual accounts for FY 2009-10. The depreciation rate of 5.28% adopted is in line with the depreciation rates specified in CERC Tariff Regulations, 2009.

The Commission, accordingly, approves the depreciation at Rs. 125.00 crore in the truing up for FY 2009-10 as detailed in the table below:

Table 4.21: Approved depreciation in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
1.	Gross block in beginning of the year	3765.00	3764.55
2.	Additions during the year (Net)	654.00	654.40
3.	Depreciation for the year	216.00	216.04
4.	Average rate of depreciation	5.28%	5.28%

The amount of depreciation is dependent on the quantum of capitalization, rate of depreciation etc. The Commission has therefore considered the parameters impacting depreciation as uncontrollable.

The Commission, accordingly, approves the gains / losses on account of depreciation in the truing up for FY 2009-10 as detailed in the table below:

Table 4.22: Gain / loss due to deprecation approved in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / (loss) due to Un controllable factor
Depreciation	218.09	216.04	2.05	2.05

4.5.11 Interest and Finance charges

The PGVCL has claimed Rs. 88.00 crore towards interest and finance charges in the truing up for FY 2009-10 against Rs. 101.44 crore approved in the Tariff order and Rs. 86.53 crore considered in the APR for FY 2009-10 as detailed in the table below:

Table 4.23: Interest and Finance charges claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Interest and Finance charges	101.44	86.53	88.00

Petitioners' submission

The PGVCL has submitted that it has considered opening balance of loan as approved in its APR order for FY 2009-10 considered in the Tariff order dated 31st March, 2010. The loan addition is computed at Rs. 314.00 crore towards loan for funding the CAPEX for FY 2009-10. PGVCL has considered the weighted average rate of interest of 6.31% against 11.73% considered in APR for FY 2009-10. In addition to the above, PGVCL has considered the guarantee charges payable on legacy loan from erstwhile GEB and interest on security deposits. The details of interest and finance charges claimed by PGVCL are as given in the table below:

Table 4.24: Interest and Finance charges claimed in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Deviation
1.	Opening loans	683.00	683.00	
2.	New loan during the year	391.00	314.00	
3.	Repayment during the year	220.00	132.00	
4.	Closing loans	854.00	865.00	
5.	Average loans	768.00	774.00	
6.	Interest on loans	50.00	49.00	1.00
7.	Interest on security deposit	34.00	37.00	(3.00)
8.	Guarantee charges	2.00	2.00	0.00
9.	Total interest & finance charges	87.00	88.00	(2.00)
10.	**Weighted average rate of interest**	**11.73%**	**6.31%**	

The PGVCL has further submitted that interest and finance charges are categorized as uncontrollable as per the MYT Regulations and accordingly worked out deviation in the actual vis-à-vis the approved expenses under uncontrollable factors and they are as given in the table below:

Table 4.25: Gains / (Loss) claimed due to interest and finance charges for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain / loss due to controllable factor	Gain / loss due to Un uncontrollable factor
Interest and Finance charges	87.00	88.00	-	(2.00)

Commission's Analysis

The Commission analyzed the loan for capital expenditure and approved the opening loan towards capital expenditure at Rs. 683.03 crore in the APR for FY 2009-10 in the Tariff order dated 31st March, 2010. This is taken as opening balance of loan in the truing up for FY 2009-10. The capitalization and funding of CAPEX have been approved for FY 2009-10 based on the audited accounts. The interest on security deposits is claimed at Rs. 37.00 crore. The repayment of loan is claimed at Rs. 132.00 crore in the truing up for FY 2009-10. In the MYT order for FY 2009-10 the tenure of new loan is considered as 10 years for repayment and the repayment is considered 1/10th of the loan outstanding at the beginning of the year. The guarantee charges as per audited accounts for FY 2009-10 are Rs. 2.00 crore. Taking all these factors into consideration the interest and finance charges are computed @ 9.31% as detailed in the table below:

Table 4.26: Interest and finance charges approved by the Commission in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
1.	Opening loans	683.00	683.03
2.	New loan during the year	314.00	364.68
3.	Repayment during the year	132.00	68.31
4.	Closing loan	865.00	979.40
5.	Average loan	774.00	831.22
6.	Interest on loan	49.00	52.45
7.	Interest on security deposit	37.00	37.00
8.	Guarantee charges	2.00	2.00
9.	**Total interest & finance charges**	**88.00**	**91.45**
10.	Rate of interest	6.31%	6.31%

The Commission, accordingly, approves the interest and finance charges at Rs. 91.45 crore in the truing up for FY 2009-10.

In regard to the computation of gains / losses, Regulation 9.6.2 (a) considers the interest and finance charges as a controllable expenses. The Commission has observed that the interest and finance charges are dependent on the amount of capital expenditure, capitalization and the extent of borrowing considered during the financial year. The Commission, therefore, considers the deviation as on account of uncontrollable factors.

The Commission, accordingly, approves the gains / losses on account of interest and finance charges in the truing up for FY 2009-10 as detailed in the table below:

Table 4.27: Gain / loss approved in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / loss due to uncontrollable factor
Interest and finance charges	101.44	91.45	9.99	9.99

4.5.12 Interest on working capital

The PGVCL has claimed Rs.107.00 crore towards interest on working capital in the truing up for FY 2009-10 against Rs. 43.28 crore approved in the Tariff order and Rs. 48.10 crore considered in the APR order for FY 2009-10 which are as detailed in the table below:

Table 4.28: Interest on working capital claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Interest on working capital	43.28	48.10	107.00

Petitioner's submission

The petitioner has submitted that the interest on working capital has been calculated based on the normative principles outlined in the Terms and Conditions of Tariff Regulations at an interest rate of 10.25%, being the Short-term Prime Lending Rate of SBI as on 01/04/2004 as approved in the APR order for FY 2009-10.

The detailed computation of interest on working capital is as given in the table below:

Table 4.29: Interest on working capital claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Deviation
1.	O&M expenses	36.00	35.00	
2.	Maintenance spares	44.00	43.00	
3.	Receivables	389.00	969.00	
4.	**Total working capital**	**469.00**	**1047.00**	

Sl. No.	Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Deviation
5.	Rate of interest on working capital	10.25%	10.25%	
6.	**Interest on working capital**	**48.00**	**107.00**	**(59.00)**

The PGVCL has further submitted that the actual amount of interest on working capital against the amount approved in APR for FY 2009-10 results in a net uncontrollable loss of Rs. 59.00 crore as is given in the table below:

Table 4.30: Gains / (Loss) claimed due to interest on working capital for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain /(loss) due to controllable factor	Gain / (loss) due to uncontrollable factor
Interest on working capital	48.00	107.00	-	(59.00)

Commission's Analysis

The Commission examined the computation of interest on working capital submitted by PGVCL and observed that receivables equivalent to two months sales have been claimed by PGVCL in the truing up for FY 2009-10 against one month sales approved in the Tariff order for FY 2009-10. The Commission had considered receivables equivalent to one-month sales as proposed by the petitioner in the ARR petition as well as in the APR petition for FY 2009-10. The working capital and interest on working capital are recomputed taking into consideration the receivables equivalent to one month sales and the O&M expenses approved in the truing up which are as detailed in the table below:

Table 4.31: Interest on working capital approved in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
1.	O&M expenses for one month	35.00	35.60
2.	Maintenance spares 1% of GFA	43.00	37.65
3.	Receivables one month's sales	969.00	432.73
4.	**Total working capital**	**1047.00**	**505.98**
5.	Rate of interest on working capital	10.25%	10.25%
6.	**Interest on working capital**	**107.00**	**51.86**

The Commission, accordingly, approves the interest on working capital at Rs. 51.86 crore in the truing up for FY 2009-10.

The deviation in the interest on working capital is considered as on account of uncontrollable factors as the components contributing to working capital are mostly uncontrollable.

The Commission, accordingly, approves the gains / losses on account of interest on working capital in the truing up for FY 2009-10 as detailed in the table below:

Table 4.32: Gain / loss approved in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / loss due to uncontrollable factor
Interest on working capital	43.28	51.86	(8.58)	(8.58)

4.5.13 Provision for bad debts

The PGVCL has claimed Rs. 70.00 crore towards actual bad debts in the truing up for FY 2009-10 against Rs. 8.52 crore approved in the Tariff order for FY 2009-10. The details are as given in the table below:

Table 4.33: Provision for bad debts claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain /(loss) due to controllable factor	Gain / (loss) due to uncontrollable factor
Provision for bad debts	9.00	70.00	(61.00)	-

Petitioner's submission

The PGVCL has submitted that the actual value of bad debts when compared with the approved value resulted in a gain of Rs. 61.00 crore on account of controllable factors which are as shown in the table below:

Table 4.34: Provision for bad debits for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain /(loss) due to Un controllable factor	Gain / (loss) due to uncontrollable factor
Provision for bad debts	9.00	70.00	(61.00)	-

Commission's Analysis

The Commission examined the submission made by the petitioner. It is noted, on verification from the audited annual accounts that an amount of Rs. 70.41 crore is included towards bad and doubtful debts provided for in the (Schedule 23 of the annual accounts). It is observed in the notes on accounts for FY 2009-10 that Government of Gujarat proposed to announce an Amnesty scheme for various categories of consumers to encourage them to settle their outstanding energy dues and the company reviewed the adequacy of provision of bad and doubtful debts and made a provision of Rs.61.83 crore towards bad and doubtful debts.

The Regulation 66 of GERC (Terms and Conditions of Tariff) Regulations, 2005 specified that the bad debts actually written off subject to commission's clearance are to be considered. The amount of Rs. 70.41 crore claimed by PGVCL includes for 61.83 crore (vide schedule 8 of annual accounts) provision and this cannot be considered as written off without adequate justification being provided by PGVCL.

The Commission, therefore, approves the bad debts at Rs. 8.58 (70.41-61.83) crore in the truing up for FY 2009-10.

The deviation on account of bad debts written off is 0.06 crore and the Commission considers the loss of Rs. 0.06 crore due to controllable factors as detailed in the table below:

Table 4.35: Gain / loss due to bad debts approved in the truing up for FY 2009-10

(Rs. crore)

Particulars	Approved in the Tariff order for FY 2009-10	Approved in truing up for FY2009-10	Deviation	Gain / (loss) due to controllable factor
Provision for bad debts	8.52	8.58	0.06	(0.06)

4.5.14 Return on equity

The PGVCL has claimed Rs. 155.00 crore towards return on equity in the truing up for FY 2009-10 against Rs. 156.70 crore approved in the Tariff order for FY 2009-10 and Rs. 157.22 crore considered in the APR which are as given in the table below:

Table 4.36: Return on equity claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Return on equity	156.70	157.22	155.00

Petitioner's submission

The petitioner has submitted that PGVCL has computed the return on equity considering a rate of 14% on the average of opening and closing equity taking into account the additions during the year FY 2009-10.

The details of computation of return on equity are as given in the table below:

Table 4.37: Return on equity claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Deviation
1.	Opening equity	1039.00	1039.00	-
2.	Additional equity during the year	168.00	135.00	33.00
3.	Closing equity	1207.00	1174.00	33.00
4.	Average equity	1123.00	1107.00	16.00
5.	Rate of return on equity	14%	14%	-
6.	**Return on Equity**	**157.00**	**155.00**	**2.00**

Commission's Analysis

The PGVCL has furnished the opening equity capital at Rs. 1039.00 crore for FY 2009-10 and it has claimed an equity addition of Rs. 135.00 crore during the FY 2009-10. The actual opening equity as on 01/04/2009 was Rs. 1039.22 crore being the closing balance of equity approved for FY 2008-09 (APR). The Commission has approved the normative equity addition at Rs. 156.29 crore in table 4.17.

The Commission has computed the return on equity in the truing up for FY 2009-10 as detailed in the table below:

Table 4.38: Return on equity approved for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
1.	Opening equity	1039.00	1039.22
2.	Addititonal equity during the year	135.00	156.29
3.	Closing equity	1174.00	1195.51
4.	Average equity	1107.00	1117.37
5.	**Return on equity @ Rate of 14%**	**155.00**	**156.43**

The Commission approves the return on equity at Rs. 156.43 crore in the truing up for FY 2009-10.

It is considered that the deviation is due to uncontrollable factors as the return on equity is being allowed on a normative basis and the quantum of equity addition in the year depends upon the capital expenditure and the capitalization achieved during the year.

The Commission, accordingly, approves the gains / losses on account of return on equity in the truing up for FY 2009-10 as detailed in the table below:

Table 4.39: Approved gains / losses due to return on equity in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / (loss) due to Un controllable factor
Return on equity	156.70	156.43	0.27	0.27

4.5.15 Taxes

The PGVCL has claimed Rs. 15.00 crore towards income tax in the truing up for FY 2009-10 against Rs. 1.36 crore approved in the Tariff order for FY 2009-10 as well as in the APR order for FY 2009-10 as given in the table below:

Table 4.40: Taxes claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Provision for tax / paid	1.36	1.36	15.00

Petitioner's submission

The petitioner has submitted that the actual tax is worked out to be Rs. 15.00 crore as against Rs. 1.36 crore approved in the APR order for FY 2009-10. PGVCL has further mentioned that tax is a statutory expense and this should be allowed without any deduction. PGVCL has claimed loss of Rs. 14.00 crore on account of tax as given in the table below:

Table 4.41: Gains / (Loss) claimed due to provision for taxes for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain /(loss) due to controllable factor	Gain / (loss) due to Un uncontrollable factor
Provision for tax / tax paid	1.00	15.00	-	(14.00)

Commission's Analysis

The Commission has verified and found that the provision for tax is Rs. 15.24 crore as per the audited annual accounts.

The Commission, accordingly, approves the provision for tax at Rs. 15.24 crore in the truing up for FY 2009-10.

In regard to the computation of gains / losses, the Regulation 9.6.1 (d) considers variation in taxes on income as uncontrollable.

The Commission, accordingly, approves the gains / losses on account of tax on income in the truing up for FY 2009-10 which are as detailed in the table below:

Table 4.42: Approved gains / losses due to tax in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / (loss) due to Un controllable factor
Tax on income	1.36	15.24	(13.88)	(13.88)

4.5.16 Non-tariff income

The PGVCL has furnished the actual non-tariff income at Rs. 142.00 crore in the truing up for FY 2009-10 against Rs. 65.97 crore approved in the Tariff order for FY 2009-10 and Rs. 132.96 crore considered in the APR for FY 2009-10 which are as detailed in the table below:

Table 4.43: Non-tariff income claimed by PGVCL in the truing up for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	APR order	Claimed in truing up
Non-tariff income	65.97	132.96	142.00

Petitioner's submission

The petitioner has submitted that the actual value of non-tariff income is Rs. 142.00 crore as against Rs. 133.00 crore approved in the APR and this resulted in a net controllable gain of Rs. 9.00 crore which is as detailed in the table below:

Table 4.44: Gains / (Loss) claimed due to non-tariff income for FY 2009-10

(Rs. crore)

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	Gain /(loss) due to controllable factor	Gain / (loss) due to Un uncontrollable factor
Non-tariff income	133.00	142.00	9.00	-

Commission's Analysis

The Commission verified and found that the actual 'other income' is Rs. 142.11 crore as per the audited annual accounts for FY 2009-10.

The Commission, accordingly, approves the non-tariff income at Rs. 142.11 crore in the truing up for FY 2009-10.

The deviation in non-tariff income is considered as uncontrollable. The Commission, accordingly approves the gains / losses on account of non-tariff income in the truing up for FY 2009-10 which is as detailed in the table below:

Table 4.45: Approved gains / losses due to non-tariff income in the truing up for FY 2009-10

(Rs. crore)

Particulars	As per Tariff order FY 2009-10	Approved in truing up for FY 2009-10	Deviation	Gain / (loss) due to Un controllable factor
Non-tariff income	65.97	142.11	76.14	76.14

4.6 Revenue from sale of power

The PGVCL has furnished the total revenue at Rs. 5587.00 crore in the truing up for FY 2009-10 against Rs. 4867.46 crore approved in the Tariff order for FY 2009-10 and Rs. 5191.00 crore considered in the APR for FY 2009-10 as detailed in the table below:

Table 4.46: Revenue claimed in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	FY 2009-10		
		Tariff order	APR order	Claimed in truing up
1.	Revenue from sale of power	4259.05	4673.34	5069.00
2.	Other income (Consumer related)	121.45	120.75	124.00
3.	Total revenue excluding subsidy (1+2)	4380.00	4794.09	5193.00
4.	Agricultural subsidy	411.10	396.91	394.00
5.	Other subsidy	75.96	-	-
6.	**Total revenue including subsidy (3+4+5)**	**4867.46**	**5191.00**	**5587.00**

The category-wise sales and revenue for FY 2009-10 is given in the table below:

Table 4.47 : Category-wise sales and revenue for FY 2009-10

(Rs. crore)

Revenue from sale of power	Year ended March , 31st 2010
Domestic or Residential	805.83
Commercial	457.41
Industrial low & medium voltage	666.27
Industrial high voltage	2201.65
Public lightining	29.05
Traction Railways	-
Irrigation agricultural	806.95
Public water works and sew pumps	101.42
Total revenue from sale	**5068.57**

Commission's Analysis

The Commission has verified the total revenue for FY 2009-10 from the audited annual accounts. The actual revenue is Rs. 5587.05 crore including other income and revenue subsidy.

The Commission, accordingly, approves the total revenue in the truing up for FY 2009-10 as detailed in the table below:

Table 4.48: Revenue approved in the truing up for FY 2009-10

(Rs. crore)

Sl. No.	Particulars	Claimed in truing up for FY 2009-10	Approved in truing up for FY 2009-10
1.	Revenue from sale of power	5069.00	5068.57
2.	Other income (Consumer related)	124.00	124.16
3.	Total revenue excluding subsidy (1+2)	5193.00	5192.73
4.	Agricultural subsidy	394.00	394.32
5.	**Total revenue including subsidy (3+4)**	**5587.00**	**5587.05**

4.7 ARR approved in the truing up

The Commission reviewed the performance of PGVCL under Regulation 9.2 of MYT Regulations, 2007 with reference to the audited annual accounts for FY 2009-10. The Commission computed the gains / losses for FY 2009-10 based on the truing up for each of the components discussed in the above paragraphs.

The Aggregate Revenue Requirement (ARR) approved in the Tariff Order dated 14th December, 2009 actual claimed in truing up and approved for truing up and gains / losses computed in accordance with MYT Regulations are as given in the table below:

Table 4.49: ARR approved in truing up for FY 2009-10

(Rs. crore)

Sl. No	Particulars	ARR Order dated 14/12/2009	APR Order dated 31/03/2010	Actual Claimed	Approved in Truing up	Deviation (3-6)	Gain / (Loss) due to controllable factors	Gain / (Loss) due to Uncontrollable factors
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1	Cost of Power Purchase	4494.88	4541.08	4883.00	4882.86	(387.98)	(405.57)	17.59
2	**Operation & Maintenance Expenses**	**426.54**	**426.54**	**540.00**	**540.18**			0.00
2.1	Employee Cost	272.70	272.70	390.00	389.93	(117.23)		(117.23)
2.2	Repair & Maintenance	92.05	92.05	75.00	75.09	16.96	16.96	
2.3	Administration & General Charges	61.79	61.79	75.00	75.16	(13.37)	(13.37)	
3	Depreciation	218.09	218.35	216.00	216.04	2.05		2.05
4	Interest & Finance	101.44	86.53	88.00	91.45	9.99		9.99

Sl. No	Particulars	ARR Order dated 14/12/2009	APR Order dated 31/03/2010	Actual Claimed	Approved in Truing up	Deviation (3-6)	Gain / (Loss) due to controllable factors	Gain / (Loss) due to Uncontrollable factors
	Charges							
5	Interest on Working Capital	43.28	48.10	107.00	51.86	(8.58)		(8.58)
6	Other Debits	3.40	3.40	7.00	7.16	(3.76)		(3.76)
7	Extraordinary Items	0.00	0.00			0.00		0.00
8	Provision for Bad Debts	8.52	9.35	70.00	8.58	0.06	(0.06)	-
9	Net Prior Period Expenses / (Income)	0.00	0.00	5.00	4.75	(4.75)		(4.75)
10	Other Expenses Capitalised	(47.72)	(47.72)	(132.00)	(124.84)	77.12		77.12
11	**Sub-Total (1+2+(3to 10)**	**5248.43**	**5285.63**	**5784.00**	**5677.98**	**(429.49)**	**(402.04)**	**(27.57)**
12	Return on Equity	156.70	157.22	155.00	156.43	0.27		0.27
13	Provision for Tax / Tax Paid	1.36	1.36	15.00	15.24	(13.88)		(13.88)
14	**Total Expenditure (11 to 13)**	**5406.49**	**5444.21**	**5954.00**	**5849.65**	**(443.10)**	**(402.04)**	**(41.18)**
15	Less: Non-Tariff Income	65.97	132.96	142.00	142.11	76.14		76.14
16	**Aggregated Revenue Requirement (14-15)**	**5340.52**	**5311.25**	**5812.00**	**5707.54**	**(366.96)**	**(402.04)**	**34.96**

The comparison of actual performance of PGVCL in FY 2009-10 with the approved ARR in the Tariff order dated 14th December, 2009 resulted in a deviation of Rs. 366.06 crore (loss) comprising of controllable loss of Rs. 402.04 crore and uncontrollable gain of Rs. 35.98 crore during FY 2009-10.

4.8 Sharing of Gains / Losses for FY 2009-10

The Commission analyzed the gains / losses on account of controllable and uncontrollable factors.

The relevant Regulations are extracted below:

Regulation 10.1 "The approved aggregate gain or loss to the Generating Company or Licensee on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the Generating Company or licensee over such period as may be specified in the Order of the Commission passed under Regulation 9.7 (a)."

Regulation 11.1 "The approved aggregate gain to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:

(a) One third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be specified in the Order of the Commission under Regulation 9.7;

(b) One third of amount of such gain shall be retained in a special reserve by the Generating Company or Licensee for the purpose of absorbing the impact of any future losses on account of controllable factors under clause (b) of Regulation 11.2; and

(c) The balance amount of gain may be utilized, at the discretion of the Generating Company or Licensee".

Regulation 11.2 "The approved aggregate loss to the Generating Company or Licensee on account of controllable factors shall be dealt with in the following manner:

(a) One third of the amount of such loss maybe passed on as an additional charge in tariffs over such period as may be specified in the Order of the Commission under Regulation 9.7; and

(b) The balance amount of loss shall be absorbed by the Generating Company or licensee."

4.9 Revenue gap / surplus for FY 2009-10

The PGVCL has claimed a revenue gap of Rs. 60.00 crore in the truing up after treatment of gains / (loss) due to controllable / uncontrollable factor comparing the performance with the APR for FY 2009-10 instead of Tariff order for FY 2009-10 as detailed in the table below:

Table 4.50: Projected Revenue gap / (surplus) FY 2009-10

(Rs. crore)

Sl. No	Particulars	Approved for FY 2009-10
1	Aggregate Revenue Requirement originally approved for FY 2009-10	5311.00
2	Gain / (Loss) on account of Uncontrollable factor to be passed on to Consumer	(253.00)
3	Gain / (Loss) on account of Controllable factor to be passed on to Consumer (1/3rd of Total Gain / Loss)	(83.00)
4	**Revised ARR for FY 2009-10 (1-2-3)**	**5647.00**
5	Revenue from Sale of power	5069.00
6	Other Income (Consumer related)	124.00

Sl. No	Particulars	Approved for FY 2009-10
7	Total Revenue excluding Subsidy (5+6)	5193.00
8	Agriculture Subsidy	394.00
9	**Total Revenue including Subsidy (7+8)**	**5587.00**
10	**Revised Gap after treating gains/(losses) due to Controllable/Uncontrollable factors (4-9)**	**60.00**

The Commission compared the actual performance of PGVCL with the values approved in the Tariff order dated 14th December, 2009.

The Commission arrived at the revised ARR and revenue gap based on the expenses and the gains / (loss) approved in the truing up for FY 2009-10. The revenue gap / surplus approved by the Commission is summarized in the table below:

Table 4.51: Revenue gap / (surplus) approved in the truing up for FY 2009-10

(Rs. crore)

Sl. No	Particulars	Approved for FY 2009-10
1	Aggregate Revenue Requirement originally approved for FY 2009-10	5340.52
2	Less: Gain on account of Uncontrollable factor to be passed on to Consumer	34.96
3	Add: Loss on account of Controllable factor to be passed on to Consumer 1/3rd of Total loss	134.01
4	**Revised ARR for FY 2009-10 (1-2-3)**	**5439.57**
5	Revenue from Sale of power	5068.57
6	Other Income (Consumer related)	124.16
7	Total Revenue excluding Subsidy	5192.73
8	Agriculture Subsidy	394.32
9	**Total Revenue including Subsidy (7+8)**	**5587.05**
10	**Revenue surplus after treating gains/(losses) due to Controllable/Uncontrollable factors (9-4)**	**147.48**

As discussed above, there is a surplus of Rs.147.48 crore for FY 2009-10, the Commission has not considered this surplus while determining the tariff for FY 2011-12, as the truing up for FY 2010-11 is required to be taken up next year. After completing the truing up for FY 2010-11 and looking to the net entitlement for the first MYT control period i.e. FY 2008-09 to FY 2010-11, the Commission would take appropriate decision on this at that time.

5. Annual Performance Review for FY 2010-11

The petitioner, in its petition for Annual Performance Review (APR) for FY 2010-11, has estimated the energy sales, expenditure and revenue for FY 2010-11, based on actual energy sales, expenditure and revenue for the first half (H1) of FY 2010-11 and provided the revised estimate of energy sales, expenditure and revenue for FY 2010-11, based on the actuals of H1 against each head.

The performance of FY 2010-11 (revised estimate) is compared with the ARR approved for FY 2010-11 in the Order dated 31st March, 2010.

The Commission has analysed the energy sales and components of expenditure and revenue under performance review for FY 2010-11 in this chapter.

5.1 Energy sales

Petitioner's submission

The PGVCL, in its petition, has estimated the energy sales for FY 2010-11, based on the actuals for the first half of FY 2010-11 and estimated sales for the rest of the year.

PGVCL has submitted the category-wise energy sales approved in Tariff order dated 31st March, 2010 and the revised estimate for FY 2010-11, as given in the Table below:

Table 5.1: Category-wise sales for FY 2010-11

Sl. No.	Particulars	Sales (MU)	
		FY 2010-11 (Approved)	FY 2010-11 (Revised estimate)
A	**LT Consumers**		
1.	Residential	2478	2359
2.	Commercial	956	925
3.	Industrial LT	1209	1343
4.	Public Water Works	317	332
5.	Agriculture*	4907	4722
6.	Public Lighting	74	76
	LT Total (A)	**9942**	**9757**
B	**HT Consumers**		
7.	Industrial HT	3975	3966
8.	Railway Traction	-	-
	HT Total (B)	**3975**	**3966**
	Grand Total (A + B)	**13917**	**13723**

*The agriculture consumption, which was estimated as 4898 MU in the petition, was revised to 4722 MU, vide letter dated 8th June 2011 of the petitioner. Consequently, the total sales (RE) given in the petition as 13901 MU, stand revised to 13723 MU, as given in Table 5.1.

There is a decrease in the sales by about 194 MU mainly in agricultural category. The total sales of 13723 MU is considered by the Commission for the purpose of APR.

5.2 Distribution losses

Petitioner's submission

The PGVCL has projected the distribution losses at 29.50% for FY 2010-11, as against 30% approved in the ARR Order dated 31st March, 2010.

A decrease of 0.50% is estimated by PGVCL in the revised estimate for FY 2010-11.

Distribution losses of 29.50% are considered for FY 2010-11 as shown below, for the purpose of APR.

Table 5.2: Distribution losses for FY 2010-11 revised estimate

(%)

Particulars	Approved in order dated 31/03/2010	Revised estimate considered for calculating energy requirement for FY 2010-11
Distribution loss (%)	30	29.50

5.3 Energy requirement and Energy balance

Petitioner's submission

Based on the revised energy sales and distribution losses, projected in paragraphs 5.1 and 5.2 above and the transmission loss as per GETCO order, PGVCL has computed the total energy requirement as given in the Table below:

Table 5.3: Energy requirement and Energy balance as submitted by PGVCL for FY 2010-11

Sl. No.	Particulars	Unit	FY 2010-11 (Approved)	FY 2010-11 (RE)
1.	Energy sales	MU	13917	13723
2.	Distribution losses	MU	5964	5742
		%	30.00	29.50
3.	Energy requirement	MU	19881	19465
4.	Transmission losses	MU	872	917
		%	4.20	4.50
5.	Total energy to be input to transmission	MU	20753	20382

Sl. No.	Particulars	Unit	FY 2010-11 (Approved)	FY 2010-11 (RE)
	system			
6.	Pooled losses in PGCIL system	MU	151	302
7.	**Total energy requirement**	**MU**	**20904**	**20684**

Commission's Analysis

The PGVCL has computed the energy requirement with distribution loss of 29.50% considered under revised estimate for FY 2010-11 and transmission loss of 4.50%. But the transmission loss is considered at 4.12% as arrived by SLDC for FY 2010-11. The energy requirement is, accordingly, computed by the Commission as shown in the table below:

Table 5.4: Energy requirement considered for FY 2010-11

Sl. No.	Particulars	Unit	FY 2010-11 (RE)	FY 2010-11 (RE considered by the Commission)
1.	Energy sales	MU	13723	13723
2.	Distribution losses	MU	5742	5742
		%	29.50	29.50
3.	Energy requirement	MU	19465	19465
4.	Transmission losses	MU	917	836
		%	4.50	4.12
5.	Total energy to be input to transmission system	MU	20382	20301
6.	Pooled losses in PGCIL system	MU	302	302
	Total energy requirement		**20684**	**20603**

The Commission considers the total energy requirement of 20603 in APR for FY 2010-11.

5.4 Power purchase cost

Petitioner's submission

It is submitted by PGVCL that the company has been currently allocated its share from the generating capacities, as per scheme worked out by GUVNL. Based on the allocation, if there is surplus of power, the distribution company sells the power to other distribution companies and if there is a deficit , the power is purchased from other distribution companies. It is further submitted by PGVCL that the power purchase cost includes the cost of power, transmission charges payable to GETCO and PGCIL and DISCOM's share of GUVNL cost. The power purchase cost for H1 of FY 2010-11 is considered on actual basis and the power purchase cost for the H2 of the year is worked out, based on per unit cost during the H1 of FY 2010-11 of scheduled energy.

Based on the above, PGVCL has compared the approved cost and revised estimate of power purchase cost for FY 2010-11, as shown below:

Table 5.5: Power purchase cost for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1 Actual)	FY 2010-11 (Revised estimate)
Total power purchase cost	4642	2655	5934

Total energy requirement (RE) = 20684 MU

Total power purchase cost (RE) = Rs.5934 crore

Per unit power purchase cost = 5934/20684*10 = Rs. 2.868 per kWh.

Commission's Analysis

The total energy requirement is revised by the Commission in Para 5.3 above by taking into consideration the transmission loss at 4.12% by the Commission, against 4.5% considered by PGVCL. The revised energy requirement of 20698 MU is considered by the Commission for FY 2010-11. The revised power purchase cost based on revised energy requirement is given below:

Table 5.6: Revised power purchase cost based on revised energy requirement for FY 2010-11

Particulars	Power purchase cost considered by ARR for FY 2010-11
Total energy requirement (MU)	20603
Unit cost of power (Rs./kWh)	2.868
Total power purchase cost (Rs. crore)	5908.94

The Commission considers the power purchase cost of Rs. 5908.94 crore in APR for FY 2010-11.

5.5 Fixed charges

5.5.1 Operation and Maintenance (O&M) expenses

The PGVCL has claimed Rs. 410.00 crore in the review for FY 2010-11. The O&M expenses approved in the Tariff order for FY 2010-11 and claimed by PGVCL in the revised estimate are as detailed in the table below:

Table 5.7: Estimated O&M expenses in the APR for FY 2010-11

(Rs. crore)

Sl. No	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/(Loss) due to Controllable Factor	Gain/ (Loss) due to Uncontrollable Factor
1.	Employee Expenses	258.00	205.00	372.00	-	(114.00)
2.	Repair & Maintenance Cost	98.00	47.00	83.00	15.00	-
3.	Administration & General Charges	65.00	35.00	81.00	(16.00)	-
4.	Other Debits	4.00	2.00	7.00	-	(4.00)
5.	Extraordinary Items	0.00	0.00	-	-	(0.00)
6.	Net Prior Period Expenses/(Income)	-	-	-	-	-
7.	Other Expenses Capitalized	(51.00)	(60.00)	(132.00)	-	82.00
8.	**Total O&M Expenses**	**374.00**	**228.00**	**410.00**	**(1.00)**	**(36.00)**

The O&M expenses comprise Employee cost, R&M expenses and Administration and General expenses. In addition, PGVCL has also included the other debits, extra ordinary items, net prior period expenses / (income) and other expenses capitalized. The O&M expenses are discussed component wise in the following paragraphs.

5.5.2 Employee cost

The PGVCL has submitted that the employee expenditure estimated by the company is on the basis of actual employee cost incurred during FY 2009-10 and 10% escalation thereon. PGVCL has explained that additional provision of gratuity of Rs. 52.04 crore made during FY 2009-10 is not considered while escalating the employee cost of FY 2009-10. The employee cost incurred is purely on the basis of the guidelines issued by competent authorities like the State Government and therefore the entire expenditure estimated is a legitimate expenditure and any variation is purely beyond its control. PGVCL has further mentioned that the hike approved in the previous tariff order does not compensate the company on account of increases due to salary related aspects including hikes, DA increase / mergers etc and requested to approve the employee cost as estimated by the company. PGVCL has also computed the gains and losses for each component of expenses in the APR.

Commission's Analysis

The Commission has noted the increase in employee cost is mainly due to the Sixth Pay Commission recommendations. The actual employee cost approved in the truing up for FY 2009-10 based on audited annual accounts is Rs. 389.93 crore. As per the submission of PGVCL this includes Rs. 52.04 crore towards additional provision of gratuity. Excluding the additional provision the normalized employee cost for FY 2009-10 is Rs. 337.89 crore. In the MYT order for FY 2010-11 the Commission permitted 6% escalation over FY 2009-10 employee cost and the same provision has been retained in the Tariff order for FY 2010-11, the employee cost being controllable expense. Considering 6% escalation over the normalized employee cost of Rs. 337.89 crore during FY 2009-10, the employee cost works out to Rs. 358.16 crore.

The Commission, accordingly, considers Rs. 358.16 crore towards employee cost in the review for FY 2010-11 as detailed in the table below:

Table 5.8: Employee cost considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11		
	Tariff order	**Claimed in RE**	**Considered for APR**
Employee cost	257.79	372.00	358.16

5.5.3 Repairs & Maintenance (R&M) expenses

The PGVCL has claimed Rs. 83.00 crore towards R&M expenses in APR for FY 2010-11 against Rs. 97.57 crore approved in the MYT order as well as Tariff order for FY 2010-11.

Petitioner's submission

The petitioner has submitted that the revised estimate for R&M is calculated on the basis of actual R&M cost for FY 2009-10 with 10% escalation.

Commission's Analysis

The Commission has observed that the R&M expense estimated at Rs. 83.00 crore in the APR is lower than what was approved in the MYT order as well as Tariff order for FY 2010-11.

The Commission, accordingly, considers Rs. 83.00 crore in the review for FY 2010-11 as projected by PGVCL as detailed in the table below:

Table 5.9: R&M expenses considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11		
	Tariff order	**Claimed in RE**	**Considered for APR**
R&M expenses	97.57	83.00	83.00

5.5.4 Administration & General (A&G) expenses

The PGVCL has claimed Rs. 81.00 crore towards A & G expenses in the APR for FY 2010-11 against Rs. 65.49 crore approved in the MYT order as well as Tariff order for FY 2010-11.

Petitioner's submission

The PGVCL has submitted that the revised estimate of A&G expenses is worked out on the basis of actual A&G expenses for FY 2009-10 with 8% escalation.

Commission's Analysis

The A&G expenses are controllable expenses and the Commission retains the projection for these expenses at Rs. 65.49 crore as approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.10: A&G expenses considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2009-10		
	Tariff order	**Claimed in RE**	**Considered for APR**
A & G expenses	65.49	81.00	65.49

5.5.5 Other Debits

Petitioners' submission

The PGVCL has claimed Rs. 7.00 crore towards other debits in the APR for FY 2010-11 against Rs. 3.57 crore approved in the MYT order as well as Tariff order for FY 2010-11.

Commission's Analysis

The PGVCL has not substantiated as to why the other debits require a revision in the APR. The Commission finds no justification for revising the provision for other debits.

The Commission, accordingly, considers the provision for other debits at Rs. 3.57 crore in the APR as approved in the Tariff Order for FY 2010-11.

5.5.6 Extra ordinary items

The PGVCL has not claimed any extraordinary items in the revised estimate for FY 2010-11 against **nil** provision approved in the MYT order as well as Tariff order for FY 2010-11.

5.5.7 Net prior period expenses / (income)

The PGVCL has not projected any expenses under this head in the APR for FY 2010-11.

5.5.8 Other expenses capitalized

The PGVCL has estimated Rs. 132.00 crore under the head 'other expenses capitalized' in the APR for FY 2010-11 against Rs. 50.58 crore approved in the MYT order as well as Tariff order for FY 2010-11.

Commission's Analysis

The actual other expenses capitalized during FY 2009-10 has been approved at Rs. 124.84 crore as per audited accounts. The provision of Rs. 132.00 crore estimated in the APR for FY 2010-11 is in line with the actuals.

The Commission, accordingly, considers the 'other expenses capitalized' at Rs. 132.00 crore as approved in the Tariff Order for FY 2010-11.

The total O&M expenses considered in the APR for FY 2010-11 are summarized in the table below:

Table 5.11: O&M expenses considered in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11		
		Tariff order	Claimed in RE	Considered for APR
1.	Employee cost	257.79	372.00	358.16
2.	Repairs & Maintenance expenses	97.57	83.00	83.00
3.	Administration & General charges	65.49	81.00	65.49
4.	Other debits	3.57	7.00	3.57
5.	Extraordinary items	-	-	-
6.	Net prior period expenses	-	-	-
7.	Other expenses capitalized	(50.58)	(132.00)	(132.00)
8.	**Total O&M expenses**	**373.84**	**411.00**	**378.22**

5.5.9 Capital expenditure

The PGVCL has estimated the capital expenditure at Rs. 883.00 crore in the APR for FY 2010-11 against Rs. 937.97 crore approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.12: Capital expenditure projected in the RE for FY 2010-11

(Rs. crore)

Sl. No.	Schemes	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
A.	**Distribution Schemes**				
	Normal Development Scheme	130.00	45.00	130.00	-
	System Improvement Scheme	80.00	25.00	70.00	10.00
	Electrification of hutments	7.00	1.00	4.00	4.00
	Kutir Jyoti Scheme	-	-	-	-
	Scheme for meters	60.00	9.00	20.00	40.00
	Others Harijan Basti	-	-	-	-
	Total	**277.00**	**80.00**	**224.00**	**54.00**
B.	**Rural Electrification Schemes**				
	TASP(Wells & Petapara)	-	-	-	-
	Special Component plan	1.00	0.00	1.00	0.00
	Others Petapara	-	-	-	-
	RE Normal	-	80.00	398.00	(398.00)
	RE Wells (OA & SPA)	336.00	-	-	336.00
	Dark zone	-	-	-	-
	BADP	2.00	0.00	1.00	1.00
	Total	**338.00**	**80.00**	**399.00**	**(61.00)**
C.	**Others**				
	Energy efficient pump	5.00	-	2.00	3.00
	Energy Conservation	0.00	-	0.00	-
	Independent certification agency	-	-	-	-
	Total	**6.00**	**-**	**2.00**	3.00
D.	**Non Plan Schemes**				
	RE Non Plan (Tatkal)	-	-	-	-
	RAPDRP	130.00	0.00	13.00	117.00
	SCADA / DMS	-	-	-	-
	RGGVY	35.00	4.00	64.00	(29.00)
	DRUM	-	-	-	-
	Total	**165.00**	**4.00**	**77.00**	**88.00**
E.	**Other New Schemes**				
	Civil works	15.00	1.00	9.00	6.00
	Automatic PF control panels	10.00	-	7.00	3.00
	Ring Main Unit	-	-	-	-
	Aerial Bunch Conductors	10.00	-	5.00	5.00
	HVDS in selected sub-division	100.00	15.00	80.00	20.00
	Automatic meter reading	-	-	-	-
	GIS in cities	-	-	-	-
	JGY Load Shedding Transformers	1.00	0.00	1.00	-
	Marine Cable for Shiyalbet	16.00	-	21.00	(5.00)
	Other schemes (General scheme)	-	1.00	1.00	(1.00)
	Earthquake rehabilitation	-	-	-	-
	Coastal area scheme	-	5.00	57.00	(57.00)
	Replacement of Assets	-	1.00	1.00	(1.00)
	Total	**152.00**	**23.00**	**182.00**	**(30.00)**
	Capital Expenditure Total	**938.00**	**187.00**	**883.00**	**55.00**

Petitioner's submission

The PGVCL has submitted that it has revised the capital expenditure to Rs. 883 crore during FY 2010-11 and this is lower than that approved by the Commission.

The PGVCL has estimated the funding of capital expenditure as detailed in the table below:

Table 5.13: Funding of capital expenditure projected in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
1.	Capitalization	667.00	311.00	883.00	(216.00)
2.	Less: Consumer Contribution	188.00	41.00	117.00	71.00
3.	Grants	46.00	-	6.00	41.00
4.	**Balance CAPEX**	**433.00**	**270.00**	**761.00**	**(328.00)**
5.	Debt @ 70%	303.00	270.00	532.00	(229.00)
6.	Equity @ 30%	130.00	-	228.00	(98.00)

Commission's Analysis

The Commission has examined the submission made by PGVCL inrespect of the proposed increase in the CAPEX in the APR for FY 2010-11. The actual capital expenditure incurred during FY 2009-10 is Rs. 637.75 crore and the capitalization is Rs. 654.40 crore. The capitalization reported in the first half year is Rs.187.00 crore only. With reference to a query from the Commission PGVCL has indicated the provisional CAPEX for FY 2010-11 at Rs. 630.00 crore and capitalization at Rs. 604.00 crore vide PGVCL letter dated 16th June, 2011.

The Commission, accordingly, considers the CAPEX at Rs. 630.00 crore and capitalisation at Rs. 604.00 crore in the APR for FY 2010-11.

The CAPEX, capitalization and funding claimed by PGVCL and considered by the Commission are as given in the table below:

Table 5.14: Capitalization and sources of funding considered in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	Claimed in APR for FY 2010-11	Considered for APR for FY 2010-11
1	Capitalization	883.00	604.00
2	Less:		
	Consumer contribution	117.00	187.59
	Grants	6.00	46.16
3	Balance CAPEX	761.00	370.25
4	Debt @ 70%	532.00	259.17
5	Equity @ 30%	228.00	111.08

5.5.10 Depreciation

The PGVCL has estimated the depreciation at Rs. 256.00 crore in the APR for FY 2010-11 against Rs. 255.41 crore approved in the Tariff Order for FY 2010-11 as detailed in the table below:

Table 5.15: Fixed Assets and Depreciation projected in the APR for FY 2010-11

(Rs. crore)

Sl. No	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
1.	Gross Block in Beginning of the year	4509.00	4419.00	4419.00	
2.	Additions during the year	667.00	-	883.00	
3.	Depreciation for the Year	255.00	117.00	256.00	(1.00)
4.	Average Rate of Depreciation	5.27%	5.28%	5.27%	

Petitioner's submission

The PGVCL has submitted that the depreciation has been revised in the APR based on the revised capital expenditure. PGVCL has further submitted that the revised estimate of depreciation for FY 2010-11 as against the value approved by the Commission resulted in a net uncontrollable gain / loss of Rs. 1.00 crore as detailed in the below:

Table 5.16 : Gains / (Loss) due to deprecation claimed in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/(Loss) due to Controllable Factor	Gain/ (Loss) due to Uncontrollable Factor
Depreciation	255.00	117.00	256.00	-	(1.00)

Commission's Analysis

The Commission has observed that the petitioner has computed the depreciation for FY 2009-10 using CERC depreciation rates asset classification wise. The opening balance of GFA as on 01/04/2010 is Rs. 4418.95 crore. The Commission has computed the depreciation based on the opening balance of GFA and addition considered for FY 2010-11 as detailed in the table below:

Table 5.17: Depreciation considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11	
	Claimed in RE	Considered for APR
Gross block in the beginning of the year	4419.00	4418.95
Additions during the year	883.00	604.00
Average rate of depreciation	5.27%	5.27%
Depreciation for the year	256.00	248.79

The Commission, accordingly, considers the depreciation at Rs. 248.79 crore in the APR for FY 2010-11.

5.5.11 Interest and Finance charges

The PGVCL has estimated the interest and finance charges at Rs.119.00 crore in the APR for FY 2010-11 against Rs. 147.31 crore approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.18: Interest and finance charges claimed in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
1.	Opening Loans	854.00	865.00	865.00	(12.00)
2.	Loan Addition during the Year	303.00	270.00	532.00	
3.	Repayment during the year	85.00	-	87.00	
4.	Closing Loans	1072.00	1136.00	1311.00	
5.	Average Loans	963.00	1001.00	1088.00	
6.	Interest on Loan	111.00	23.00	80.00	31.00
7.	Interest in Security Deposit	34.00	19.00	37.00	(3.00)
8.	Guarantee Charges	2.00	1.00	2.00	0.00
9.	**Total Interest & Financial Charges**	**147.00**	**43.00**	**119.00**	**28.00**
10.	Weighted Average Rate of Interest	11.52%	4.69%	7.33%	

Petitioners' submission

The PGVCL has submitted that it has considered closing balance of loans of FY 2009-10 as basis for estimation of interest on loans and mentioned that the loan addition in FY 2010-11 is computed at Rs. 532.00 crore for funding the capital expenditure. The repayment has been considered as 10% of the opening balance of loan and the weighted average rate of interest worked out to 7.33%. The interest on security deposit and guarantee charges have been considered based on the actual for FY 2009-10.

The PGVCL has further submitted that the revised estimate of interest and finance charges of FY 2010-11 as against the value approved by the Commission resulted in a net loss of Rs. 28.00 crore on account of uncontrollable factor as detailed in the table below:

Table 5.19: Gain / (Loss) due to interest and financial charges claimed in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Interest & Finance Charges	147.00	43.00	119.00	-	28.00

Commission's Analysis

The Commission has observed that the opening balance of loans for FY 2010-11 is adopted by PGVCL as per the closing balance of loans claimed in the truing up for FY 2009-10. However, the addition of loan is considered by PGVCL at Rs. 532.00 crore while the debt considered based on capitalization approved in the table 5.14 is Rs. 303.20 crore for FY 2010-11. The Commission has considered Rs. 303.20 crore as loan addition for FY 2010-11. PGVCL has estimated interest on security deposit at Rs. 37.00 crore in the APR for FY 2010-11. The Commission considers Rs. 37.00 crore towards interest on security deposit. The guarantee charges claimed are Rs. 2.00 crore. This is as approved in the truing up for FY 2009-10. Taking all these into consideration the Commission has computed the interest and finance charges in the APR for FY 2010-11 as detailed in the table below:

Table 5.20: Interest and Finance charges considered in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11	
		Claimed in RE	Considered for APR
1.	Opening loans	865.00	979.40
2.	Loan additions during the year	532.00	259.17
3.	Repayment during the year	87.00	97.94
4.	Closing loans	1311.00	1140.63
5.	Average loans	1088.00	1060.02
6.	Rate of interest	7.33%	7.33%
7.	Interest on loans	80.00	77.70
8.	Interest on security deposit	37.00	37.00
9.	Guarantee charges	2.00	2.00
10.	**Total interest and finance charges**	**119.00**	**116.70**

The Commission, accordingly, considers the interest and finance charges at Rs. 116.70 crore in the APR for FY 2010-11.

5.5.12 Interest on working capital

The PGVCL has estimated the interest on working capital at Rs. 128.00 crore in the APR for FY 2010-11 against Rs. 46.91 crore approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.21: Interest on Working Capital claimed in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
1.	O & M Expenses	35.00	19.00	34.00	
2.	Maintenance Spares	54.00	23.00	55.00	
3.	Receivables	369.00	525.00	1155.00	
4.	**Total Working Capital**	**458.00**	**567.00**	**1244.00**	
5.	Rate of Interest on Working Capital	10.25%	10.25%	10.25%	
6.	**Interest on Working Capital**	**47.00**	**29.00**	**128.00**	**(81.00)**

Petitioner's submission

The petitioner has submitted that the interest on working capital has been calculated on normative principles as per the Terms and Conditions of Tariff Regulations at an interest rate of 10.25% the Short-term Prime Lending Rate of SBI as on 01/04/2004.

The PGVCL has further submitted that the normative amount of interest on working capital for FY 2010-11 as against the amount approved in Tariff order for FY 2010-11 resulted in a net uncontrollable loss of Rs. 81.00 crore as detailed in the table below:

Table 5.22: Treatment of Interest on Working Capital

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Interest on working capital	47.00	58.00	128.00	-	(81.00)

Commission's Analysis

The Commission has examined the computation of interest on working capital submitted by PGVCL and observed that receivables equivalent to two months sales have been claimed by PGVCL in the ARR for FY 2010-11 against one month sales approved in the Tariff order for FY 2010-11. The Commission had considered receivables equivalent to one-month sales as proposed by the petitioner in the ARR petition for FY 2010-11. The working capital and interest on working capital are recomputed taking into consideration the receivables equivalent to one month sales as detailed in the table below:

Table 5.23: Interest on working capital considered in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	Claimed in RE FY 2010-11	Considered for APR for FY 2010-11
1.	O&M expenses for one month	34.00	31.52
2.	Maintenance spares 1% of GFA	55.00	44.19
3.	Receivables one month's sales	1155.00	455.92
4.	**Total working capital**	**1244.00**	**531.63**
5.	Rate of interest on working capital	10.25%	10.25%
6.	**Interest on working capital**	**128.00**	**54.49**

The Commission, accordingly, considers the interest on working capital at Rs. 54.49 crore in the APR for FY 2010-11.

5.5.13 Provision for bad debts

The PGVCL has claimed Rs. 11.00 crore towards bad debts in the APR for FY 2010-11 against Rs. 8.86 crore approved in the Tariff order for FY 2010-11 and claimed loss of Rs. 2.00 crore on account of controllable factor as detailed in the table below:

Table 5.24: Treatment of Provision for bad debts

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Provision for bad debts	9.00	6.00	11.00	(2.00)	-

Petitioner's submission

The PGVCL has submitted that the provision for bad debts has been calculated at 0.2% of revenue from existing tariff considering substantial addition to the BPL consumer category.

Commission's Analysis

The Commission had approved the bad debts @ 0.2% of the revenue in the Tariff order of FY 2010-11. PGVCL has estimated the revenue from sale of power at Rs. 5471.00 crore in the APR for FY 2010-11. The bad debts at 0.2% of the revenue works out to Rs. 10.94 crore.

The Commission, accordingly, considers the provision for bad debts at Rs. 10.94 crore as detailed in the table below:

Table 5.25: Provision for bad debts considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11		
	ARR order	Claimed in RE	Considered for APR
Provision for bad debts	8.86	11.00	10.94

5.5.14 Return on equity

The PGVCL has estimated the return on equity at Rs. 180.00 crore in the APR for FY 2010-11 against Rs. 178.05 crore approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.26: Return on Equity claimed in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Deviation
1.	Opening Equity Capital	1207.00	1174.00	1174.00	33.00
2.	Equity additions during the Year	130.00	-	228.00	(98.00)
3.	Closing Equity	1337.00	1174.00	1402.00	(65.00)
4.	Average Equity	1272.00	1174.00	1288.00	(16.00)
5.	Rate of Return on Equity	14%	14%	14%	-
6.	**Return on Equity**	**178.00**	**82.00**	**180.00**	**(2.00)**

Petitioner's submission

The petitioner has submitted that return on equity has been computed @ 14% on the average equity based on the opening balance of equity and additions during the year. The comparison of the normative return on equity for FY 2010-11 as against the amount approved in the tariff order resulted in a controllable loss of Rs. 2.00 crore as detailed in the table below:

Table 5.27: Treatment of return on equity

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Return on equity	178.00	82.00	180.00	(2.00)	-

Commission's Analysis

The Commission has computed the return on equity @ 14% on the average equity for FY 2010-11 taking into consideration the closing balance of equity of Rs. 1195.51 crore for FY 2009-10 as the opening balance for FY 2010-11 and addition of equity of Rs. 129.94 crore during the year as detailed in the table below:

Table 5.28: Return on equity considered in the APR for 2010-11

Sl. No.	Particulars	FY 2010-11	
		Claimed in RE	Considered in APR
1.	Opening Equity Capital	1174.00	1195.51
2.	Equity additions during the Year	228.00	111.08
3.	Closing Equity	1402.00	1306.59
4.	Average Equity	1288.00	1251.05
5.	**Return on Equity @14%**	**180.00**	**175.15**

The Commission, accordingly, considers the return on equity at Rs. 175.15 crore in the APR for FY 2010-11.

5.5.15 Taxes

The PGVCL has estimated the income tax at Rs. 36.00 crore in the APR for FY 2010-11 against Rs. 1.29 crore approved in the Tariff order for FY 2010-11 and computed the gains / losses as detailed in the table below:

Table 5.29: Provision for taxes claimed in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Provision for Tax/Tax Paid	1.00	-	36.00	-	(35.00)

Petitioner's submission

The petitioner has submitted that it has estimated the tax at Rs. 36.00 crore at MAT rate of 19.93% and stated that income tax is a statutory expense and should be allowed without any deduction.

Commission's Analysis

The Commission considers the income tax at Rs.36.00 crore @ MAT rate of 19.93% as claimed by PGVCL in the APR for FY 2010-11 as detailed in the Table below:

Table 5.30: Provision for taxes considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11		
	ARR order	Claimed in RE	Considered for APR
Income tax	1.29	36.00	36.00

The Commission, accordingly, considers the tax on income at Rs. 36.00 crore in the APR for FY 2010-11.

5.5.16 Non-tariff income

The PGVCL has estimated the non-tariff at Rs. 142.00 crore in the APR for FY 2010-11 against Rs. 140.94 crore approved in the Tariff order for FY 2010-11 and claimed loss of Rs. 1.00 crore as detailed in the table below:

Table 5.31: Non-tariff income claimed in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)	Gain/ (Loss) due to Controllable Factor	Gain/(Loss) due to Uncontrollable Factor
Non-tariff income	141.00	38.00	142.00	(1.00)	-

Commission's Analysis

The Commission has observed that PGVCL has estimated the non-tariff income at the level of actual during FY 2009-10.

Table 5.32: Non-tariff income considered in the APR for FY 2010-11

(Rs. crore)

Particulars	FY 2010-11		
	ARR order	Claimed in RE	Considered for APR
Non-tariff income	140.94	142.00	142.00

The Commission, accordingly, considers the non-tariff income at Rs. 142.00 crore in the APR for FY 2010-11.

5.6 Revenue from sale of power

The PGVCL has estimated the revenue at Rs. 5471.00 crore (excluding agriculture subsidy) in the APR for FY 2010-11, as against Rs. 4666.00 crore approved in the Tariff order for FY 2010-11 as detailed in the table below:

Table 5.33: Revenue claimed in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	FY 2010-11 (Approved)	FY 2010-11 (H1)	FY 2010-11 (RE)
1.	Revenue with Existing Tariff	4540.00	2756.00	5346.00
2.	Other Income (Consumer related)	127.00	62.00	124.00
3.	**Total Revenue excluding Subsidy(1+2)**	**4666.00**	**2818.00**	**5471.00**
4.	Agriculture Subsidy	408.00	-	393.00
5.	**Total Revenue including subsidy (3+4)**	**5075.00**	**2818.00**	**5864.00**

The PGVCL has submitted that it has revised its estimate of revenue to Rs. 5864.00 crore as against Rs. 5075.00 crore approved in the Tariff order for FY 2010-11. PGVCL has recovered revenue of Rs. 2818.00 crore in the H1 of FY 2010-11 based on which the revenue is projected for H2 of FY 2010-11 considering the same per unit realisation.

Commission's Analysis

The Commission takes into consideration the revenue at Rs. 5864.00 crore including subsidy as estimated by PGVCL in the APR for FY 2010-11.

5.7 ARR considered in the APR

The Commission has reviewed the performance of PGVCL under Regulation 9.3 of MYT Regulations, 2007 with reference to the performance of the company during the first half year of FY 2010-11.

The Aggregate Revenue Requirement (ARR) approved in the Tariff order dated 31st March, 2010, claimed by the Commission in the performance review for FY 2010-11 are as given in the table below:

Table 5.34: ARR considered in the APR for FY 2010-11

(Rs. crore)

Sl. No.	Particulars	Tariff Order dated 31/03/2010	Claimed in RE FY 2010-11	Considered in APR FY 2010-11	Deviation (3-5)
1	**2**	**3**	**4**	**5**	**6**
1	Cost of Power Purchase	4641.84	5934.00	5910.63	(1268.79)
2	**Operation & Maintenance Expenses**	**420.85**	**536.00**	**506.65**	
2.1	Employee Cost	257.79	372.00	358.16	(100.37)
2.2	Repair & Maintenance	97.57	83.00	83.00	14.57
2.3	Administration & General Charges	65.49	81.00	65.49	0.00
3	Depreciation	255.41	256.00	248.79	6.62
4	Interest & Finance Charges	147.31	119.00	116.70	30.61
5	Interest on Working Capital	46.91	128.00	54.49	(7.58)
6	Other Debits	3.57	7.00	3.57	0.00
7	Extraordinary Items	0.00	0.00	0.00	0.00
8	Provision for Bad Debts	8.86	11.00	10.94	(2.08)
9	Net Prior Period Expenses / (Income)	0.00	0.00	0.00	0.00
10	Other Expenses Capitalised	(50.58)	(132.00)	(132.00)	81.42
11	**Sub-Total (1+2+(3to 10)**	**5474.17**	**6859.00**	**6719.77**	(1245.60)

Sl. No.	Particulars	Tariff Order dated 31/03/2010	Claimed in RE FY 2010-11	Considered in APR FY 2010-11	Deviation (3-5)
12	Return on Equity	178.05	180.00	175.15	2.90
13	Provision for Tax / Tax Paid	1.29	36.00	36.00	(34.71)
14	**Total Expenditure (11 to 13)**	**5653.51**	**7075.00**	**6930.92**	**(1277.41)**
15	Less: Non-Tariff Income (Column 7- Column4)	140.94	142.00	142.00	(1.06)
16	**Aggregate Revenue Requirement (14-15)**	**5512.57**	**6933.00**	**6788.92**	**(1276.35)**

The comparision of revised estimate of PGVCL in FY 2010-11 with the approved ARR in the Tariff Order dated 31st March, 2010 resulted in a deviaion of Rs.1276.35 crore.

The actual performance for FY 2010-11 will be reviewed with reference to the audited annual accounts for FY 2010-11 and sharing of gains / losses as per GERC Regulations will be considered at the time of truing up for FY 2010-11.

6. Aggregate Revenue Requirement (ARR) for the control period FY 2011-12 to FY 2015-16 and determination of tariff for FY 2011-12

6.1 Energy Sales

Proper estimation of category-wise energy sales for the control period is essential to arrive at the quantum of power to be purchased and the likely revenue by sale of energy.

This section examines in detail the consumer category-wise energy sales projected by PGVCL in its MYT Petition for the control period FY 2011-12 to FY 2015-16 for approval of ARR.

6.2 Consumer Category

PGVCL serves over 37 lakh consumers within its license area and the consumers are broadly categorised as under:

LT category

- Residential
- Commercial
- Industrial - LT
- Agricultural
- Public water works
- Public lighting/street lighting

HT category

- Industrial - HT

The DISCOM serves the consumers at different voltages at which the consumers avail supply.

All the consumer connections, other than agriculture are metered. Even the agriculture consumers who are connected since October, 2010 are metered. However, majority of agriculture consumer connections (which were connected prior to 2010) are un-metered and their consumption is assessed based on the normative consumption approved by the Commission.

6.2.1 Overall approach to sales projections

The PGVCL has projected the energy sales for the control period, taking the actual sales for the year FY 2009-10 as its base. It is stated that the methodology based on past trend has proved to be a reasonably accurate and well-accepted method for estimating the energy consumption, number of consumers and connected load. PGVCL has, therefore, estimated the energy sales, the number of consumers and connected load, based on compound annual growth rate (CAGR) during the past years. Wherever the average has seemed unreasonable or unsustainable, the growth factors have been asjusted by the DISCOM to arrive at more realistic projections.

Where the past data is fairly accurate and the patterns are well established, the methodology based on past data is a well established method for energy forecast. As such, the methodology adopted by PGVCL is accepted by the Commission.

6.2.2 Category-wise projected energy sales for the control period FY 2011-12 to FY 2015-16

The PGVCL has furnished the category-wise sales over the last 5 years (FY 2005-06 to FY 2009-10) based on the actuals and projected the sales for the control period, FY 2011-12 to FY 2015-16 and also the underlying CAGR (5 year and 3 year) thereof. Category-wise sales over the last 5 years as furnished by PGVCL are shown in the Table below:

Table 6.1: Historical data on category-wise energy sales

(MU)

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Low tension consumers					
Residential	1505	1657	1826	2032	2156
Commercial	494	561	646	732	816
Industrial LT	960	1064	1140	1151	1256
Public water works	210	219	236	269	303
Agriculture	3897	4062	4198	4286	4591
Street light	53	58	62	65	71
LT Total	**7119**	**7621**	**8108**	**8535**	**9193**
High tension consumers					
Industrial HT	1993	3271	3730	3715	3839
Railway traction	-	-	-	-	-
HT Total	**1993**	**3271**	**3730**	**3715**	**3839**
Total	**9112**	**10892**	**11838**	**12250**	**13032**

Table 6.2: Category-wise growth rates of energy sales

(%)

Particulars	5 Years CAGR FY 2010 over 2006	3 Years CAGR FY 2010 over 2008	FY 2010 over FY 2009
Low tension consumers			
Residential	9.40	8.67	6.10
Commercial	13.37	12.40	11.50
Industrial LT	6.95	4.96	9.10
Public water works	9.62	13.36	12.70
Agriculture	4.18	4.58	7.10
Street light	7.56	6.97	9.10
LT Total	**6.60**	**6.48**	**7.70**
High tension consumers			
Industrial HT	17.81	1.45	3.30
Railway traction	0.00	0.00	0.00
HT Total	**17.81**	**1.45**	**3.30**
Total	**9.36**	**4.92**	**6.40**

6.2.3 Consumer profile and connected load

The PGVCL has also furnished the category-wise number of consumers and the connected load for past years and CAGR growth rates for different periods (5 year, 3 year and YoY), as given below:

Table 6.3: Category-wise number of consumers

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Low tension consumers					
Residential	2245856	2322867	2419906	2566687	2675147
Commercial	411346	431485	448836	470162	490905
Industrial LT	70372	72643	74697	76207	78807
Public water works	10522	10519	10717	11115	11570
Agriculture	352003	362816	381011	404859	437089
Street lighting	3952	4112	4307	4561	4749
LT Total	**3094051**	**3204442**	**3339474**	**3533591**	**3698267**
High tension consumers					
Industrial HT	1500	1733	1957	2252	2504
Railway traction	-	-	-	-	-
HT Total	**1500**	**1733**	**1957**	**2252**	**2504**
Total	**3095551**	**3206175**	**3341431**	**3535843**	**3700771**

Table 6.4: Growth rate of number of consumers

(%)

Particulars	5 Years CAGR FY 2010 over 2006	3 Years CAGR FY 2010 over 2008	FY 2010 over FY 2009
Low tension consumers			
Residential	4.47	2.54	4.20
Commercial	4.52	2.27	4.40
Industrial LT	2.87	1.35	3.40
Public water works	2.40	1.93	4.10
Agriculture	5.56	3.49	8.00
Street lighting	4.70	2.47	4.10
LT Total	**4.56**	**2.58**	**4.70**
High tension consumers			
Industrial HT	13.67	6.36	11.20

Particulars	5 Years CAGR FY 2010 over 2006	3 Years CAGR FY 2010 over 2008	FY 2010 over FY 2009
Railway traction	0.00	0.00	0.00
HT Total	**13.67**	**6.36**	**11.20**
Total	**4.57**	**2.59**	**4.70**

Connected load profile

Table 6.5: Category-wise connected load

(MW)

Particulars	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10
Low tension consumers					
Residential	1062	1506	1681	1855	2019
Commercial	378	459	568	659	735
Industrial LT	774	821	893	945	995
Public water works	103	102	106	109	111
Agriculture	2105	2166	2300	2462	2726
Street lighting	11	14	17	18	18
LT Total	**4433**	**5068**	**5565**	**6048**	**6604**
High tension consumers					
Industrial HT	640	916	1207	1273	1316
Railway traction	-	-	-	-	-
HT Total	**640**	**916**	**1207**	**1273**	**1316**
Total	**5073**	**5984**	**6772**	**7321**	**7920**

Table 6.6: Growth rate for connected load

(%)

Particulars	5 Years CAGR FY 2010 over 2006	3 Years CAGR FY 2010 over 2008	FY 2010 over FY 2009
Low tension consumers			
Residential	17.42	4.69	8.80
Commercial	18.09	6.66	11.50
Industrial LT	6.48	2.74	5.30
Public water works	1.89	1.16	1.80
Agriculture	6.68	4.34	10.70
Street lighting	13.10	1.44	0.00
LT Total	**10.48**	**4.37**	**9.20**
High tension consumers			
Industrial HT	19.75	2.19	3.40
Railway traction	0.00	0.00	0.00
HT Total	**19.75**	**2.19**	**3.40**
Total	**11.78**	**3.99**	**8.20**

6.2.4 Category-wise projected energy sales

Based on the growth rates of energy sales given in Table 6.2 above, PGVCL has projected category-wise energy sales for the control period FY 2011-12 to FY 2015-16, as given in the Table below. It is stated in the petition that the sales are projected for the control period with the figures of FY 2009-10 as the base. Later, it was clarified that the figures of FY 2010-11 (Revised Estimate), as furnished in the present petition, are taken as the base for projection of sales for the control period.

Table 6.7: Projected energy sales for the control period FY 2011-12 to FY 2015-16

(MU)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
LT Consumers					
Residential	2581	2824	3089	3380	3697
Commercial	1049	1189	1348	1529	1733
Industrial LT	1436	1536	1643	1757	1879
Public water works	364	400	438	480	526
Agriculture	5157	5417	5676	5935	6194
Public lighting	82	88	95	102	110
LT Total (A)	**10670**	**11453**	**12289**	**13182**	**14139**
HT consumers					
Industrial HT	4099	4235	4376	4522	4672
Railway traction	-	-	-	-	-
HT Total (B)	**4099**	**4235**	**4376**	**4522**	**4672**
Grand Total	**14769**	**15688**	**16665**	**17704**	**18812**

6.2.5 Projection of consumers and connected load

The PGVCL has also projected the category-wise number of consumers and connected load for the control period as shown below:

Consumers

Table 6.8: Projected number of consumers for the control period FY 2011-12 to FY 2015-16

(Nos.)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
LT Consumers					
Residential	2919648	3050155	3186496	3328931	3477733
Commercial	536281	560519	585852	612329	640004
Industrial LT	83396	85790	88253	90786	93393
Public water works	12133	12424	12722	13028	13341
Agriculture	491589	519589	547589	575589	603589
Public lighting	5206	5451	5707	5975	6256
LT Total (A)	**4048253**	**4233928**	**4426619**	**4626639**	**4834316**
HT consumers					
Industrial HT	3096	3442	3827	4256	4732
Railway traction	-	-	-	-	-
HT Total (B)	**3096**	3442	3827	4256	4732
Grand Total	**4051349**	**4237370**	**4430446**	**4630895**	**4839047**

Connected load

Table 6.9: Projection of connected load for the control period FY 2011-12 to FY 2015-16

(MW)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
LT Consumers					
Residential	2784	3269	3838	4507	5292
Commercial	1025	1210	1429	1688	1993
Industrial LT	1128	1201	1279	1362	1450
Public water works	115	117	120	122	124
Agriculture	3040	3201	3362	3523	3684
Public lighting	23	26	29	33	38
LT Total (A)	**8115**	**9025**	**10058**	**11235**	**12582**
HT consumers					

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Industrial HT	1406	1454	1503	1554	1606
Railway traction	-	-	-	-	-
HT Total (B)	**1406**	**1454**	**1503**	**1554**	**1606**
Grand Total	**9521**	**10479**	**11561**	**12789**	**14188**

6.3 Detailed analysis of energy sales projected

The category-wise energy sales, given in Table 6.1, for the FY 2005-06 to FY 2009-10 are the actuals, the energy sales for the control period FY 2011-12 to FY 2015-16 are projected based on the 5 year / 3 year CAGR between the period FY 2005-06 and FY 2009-10 and year on year for the period between the years 2009 and 2010.

The PGVCL has projected the sales for the control period mostly based on past trends considering 5 year CAGR with the base numbers of FY 2010-11 (Revised Estimate) submitted to the Commission in the present petition under APR for FY 2010-11.

The percentage contribution of sales by each category on the total sales during the year FY 2010-11 are shown below:

Sl. No.	Category	Sales	Percentage
1	Residential	2359	17.2
2	Commercial	925	6.7
3	Industrial LT	1343	9.8
4	Public water works	332	2.4
5	Agriculture	4722	34.4
6	Public lighting	76	0.6
7	Industrial HT	3966	28.9
	Total	**13723**	**100**

Since the revised estimates, submitted to the Commission in APR FY 2010-11, are the latest sales figures available, it is considered appropriate to project the sales for the control period based on 2010-11 (Revised Estimate) figures.

6.3.1 Residential

The sales to this category constitute about 17.2% of total energy sales of the company. PGVCL has projected the energy sales to residential category for the control period, as given below:

Table 6.10: Energy sales projected for the residential category during 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
Residential Category (MU)	2581	2824	3089	3380	3697

Petitioner's submission

It is submitted by PGVCL that the company has witnessed a near to double digit growth in the units sold in the last 5 years to this category. The CAGR growth rate between FY 2005-06 and FY 2009-10 was 9.40%. The company expects this trend to continue for the control period FY 2011-16.

Commission's Analysis

The growth during the last 5 years was 9.40% and PGVCL expects a growth rate of 9.40% during the control period 2011-16. Since a number of households are still to be electrified, the growth of 9.40% is considered reasonable during the control period.

The Commission approves the energy sales to the residential category during the control period, as shown below:

Table 6.11: Energy sales approved for the residential category during the control period

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Residential category (MU)	2581	2824	3089	3380	3697

6.3.2 Commercial

The sales to this category constitute about 6.7% of total energy sales of the company.

The PGVCL has projected the energy sales to this category during the control period 2011-16, as shown below:

Table 6.12 : Energy sales projected for the Commercial category during 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
Commercial category (MU)	1049	1189	1348	1529	1733

Petitioner's submission

The PGVCL has submitted that the sales growth rate between FY 2005-06 and FY 2009-10 was 13.37%. The company expects this trend to continue for the control period.

Commission's Analysis

The CAGR over the 5-year period 2005-06 to 2009-10 was 13.37% and the growth over the 3-year period for 2009-10 over FY 2007-08 was 12.40%. The growth of 13.37% assumed by PGVCL is considered reasonable, as the Commercial Category is likely to maintain the same growth with the growth of the economy.

The Commission, therefore, approves the energy sales for the control period, as given in the Table below:

Table 6.13: Energy sales approved for Commercial category 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
Commercial category (MU)	1049	1189	1348	1529	1733

6.3.3 Industrial (LT)

The consumption of this category accounts for about 9.81% of the total sales of the company. PGVCL has projected the sales of this category during the control period, as given below:

Table 6.14: Energy sales projected for Industrial (LT) category 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
Industrial (LT) category (MU)	1436	1536	1643	1757	1879

Petitioner's submission

The PGVCL has submitted that sales growth between FY 2005-06 and FY 2009-10 was 6.95% and the company expects this trend to continue for the control period.

Commission's Analysis

The CAGR of this category was 6.95% over a 5-year period FY 2005-06 to FY 2009-10 and 4.96% over a 3-year period FY 2007-08 to 2009-10 and YoY growth for FY 2010 over FY 2009 was 9.1% and the DISCOM expects the growth of 6.95% for the control period. It is considered that the growth of 6.95% is reasonable for the control period.

The Commission approves the energy sales to the Industrial (LT) category during the control period FY 2011-12 to FY 2015-16, as projected by PGVCL and given in the Table below:

Table 6.15: Energy sales approved for Industrial (LT) category 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
Industrial (LT) category (MU)	1436	1536	1643	1757	1879

6.3.4 Public water works

The sales to this category amount to 2.4% of total energy sales of the company. PGVCL has projected the sales of this category during the control period, as given in the Table below:

Table 6.16: Energy sales projected for Public water works) category 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
Public water works category (MU)	364	400	438	480	526

Petitioner's submission

The PGVCL has submitted that the sales growth rate between FY 2005-06 and FY 2009-10 was 9.62% and the company expects this trend to continue for the the control period.

Commission's Analysis

The 5 year CAGR (2006-2010) of the category was 9.62% and 3 year CAGR (2008-2010) was 13.36% and the YoY growth for FY 2010 over FY 2009 is 12.70%. The petitioner has proposed a growth of 9.62% during the control period. The growth of 9.62% for this category during the control period appears feasible and may sustain during the control period, and hence approved.

The Commission approves the sales to public water works during the control period, as given in the Table below:

Table 6.17: Energy sales approved for Public water works category 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
Public water works category (MU)	364	400	438	480	526

6.3.5 Agriculture (Irrigation pumpsets)

The consumption by agriculture (irrigation pumpsets) accounts for about 34.4% of total energy sales of the company. The consumption by irrigation pumpsets connected during the recent years only is metered and those related to earlier years are not metered. PGVCL has projected the energy sales during the control period, as given in the Table below:

Table 6.18: Energy sales projected for Agriculture (Irrigation Pumpsets) 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
Agriculture category (MU)	5157	5417	5676	5935	6194

Petitioner's submission

The PGVCL has submitted that for calculation of sales for un-metered consumers and metered consumers, sales at around 700 kWh/HP/annum are considered for metered consumer connections and 1700 kWh/HP/annum for un-metered consumer connections. For projection of sales for additional connections, 1200 kWh/HP/annum is taken. It is further submitted that the company has stopped issuing un-metered connections (A1 slab). Hence, a 0% growth rate has been assumed for the A1 slab.

The number of connections, unit sales, the load estimated and the projected sales to the category during the control period are given in the Table below:

Table 6.19: Projected number of new connections, connected load and consumption by Agriculture (Irrigation Pumpsets) for the control period FY 2011-12 to FY 2015-16

Particulars	No. of connections	Average HP of DISCOM	HP Increase	MW Increase	Per HP Consumption	Additional sale (MU)
FY 2010-11	26500	7.71	204385	153	1200	245
FY 2011-12	28000	7.71	215954	161	1200	259
FY 2012-13	28000	7.71	215954	161	1200	259
FY 2013-14	28000	7.71	215954	161	1200	259
FY 2014-15	28000	7.71	215954	161	1200	259
FY 2015-16	28000	7.71	215954	161	1200	259

Commission's Analysis

As mentioned earlier, there is a mix of un-metered and metered consumers in this category. The consumption of un-metered category is arrived at on normative basis of 1700 kWh/HP/annum, as fixed by the Commission. For metered consumption, PGVCL is taking the consumption of about 700 kWh/HP/annum. It is submitted by PGVCL that sales for additional connections (metered) would be projected at 1200 kWh/HP/annum. This is not acceptable to the Commission as all additional connections are metered.

While furnishing additional information called for by the Commission, PGVCL has stated that the consumption of metered category does not reflect the true consumption due to several factors including unauthorised use of energy.

In the additional information, the petitioner has also furnished the number of agricultural consumer connections, connected load in HP and the consumption for FY 2009-10 and FY 2010-11 (actuals), as given below:

FY 2009-10	**Metered**	**Un-metered**
No. of consumers	177563	259526
Connected load (HP)	1371174	2283935
Consumption (MU)	771.2825	3819.78
FY 2010-11		
Number of consumers	198417	259575
Connected load (HP)	1569279	2332711
Consumption (MU)	785.2869	3936.88

Based on the information available, the Commission has assessed the consumption of un-metered and metered connections for the control period as below:

- The total numbers of metered and un-metered consumer connections, as on 31st March, 2011, are 198417 and 259575 respectively and the connected load is 1569279 HP and 2332711 HP for metered and un-metered category respectively.
- Since PGVCL has stated that it is not releasing any un-metered connections during the control period, the number of connections projected to be released during each year of the control period are added to the number of metered consumers as on 31st March, 2011. The un-metered connections will remain constant as no new un-metered connection will be released during the control period.
- The consumption for the un-metered is adopted at 1700 kWh/HP/annum, as per the norm fixed by the Commission.
- The weighted average consumption of metered consumers during FY 2009-10 and FY 2010-11 is considered for assessing the consumption during the control period for the existing and new metered consumer connections being added during the control period. The weighted average consumption works out to 529 kWh/HP/annum for PGVCL.

Based on the above, the energy consumption for Agriculture consumers is computed during the control period as shown in the Table below:

Table 6.20 Approved consumption by Agricultural consumers during the control period FY 2011-12 to FY 2015-16

Metered/ Unmetered	Number of consumers	Connected Load (HP)	Energy Consumption (MU)
FY 2010-11			
Unmetered	259575	2332711	3966
Metered	198417	1569279	785
Total	**457992**	**3901990**	**4751**
FY 2011-12			
Unmetered	259575	2332711	3966
Metered	226417	1785233	944
Total	**485992**	**4117944**	**4910**
FY 2012-13			
Unmetered	259575	2332711	3966
Metered	254417	2001187	1059

Metered/ Unmetered	Number of consumers	Connected Load (HP)	Energy Consumption (MU)
Total	**513992**	**4333898**	**5025**
FY 2013-14			
Unmetered	259575	2332711	3966
Metered	282417	2217141	1173
Total	**541992**	**4549852**	**5139**
FY 2014-15			
Unmetered	259575	2332711	3966
Metered	310417	2433095	1287
Total	**569992**	**4765806**	**5253**
FY 2015-16			
Unmetered	259575	2332711	3966
Metered	338417	2649049	1401
Total	**597992**	**4981760**	**5367**

The Commission approves the energy sales for the Agricultural consumers for the control period, as given in the Table below:

Table 6.21 Approved consumption by Agriculture consumers

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Agriculture category Sales (MU	4910	5025	5139	5253	5367

6.3.6 Streetlights

The consumption of streetlights accounts for about 0.6% of total sales of the company. PGVCL has projected the energy sales of this category for the control period, as given in the Table below:

Table 6.22 Projected energy sales for Streetlights

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Streetlights (MU)	82	88	95	102	110

Petitioner's submission

The PGVCL has submitted that the sales growth rate of this category was 7.56% during the 5-year period FY 2005-06 and FY 2009-10. The company expects this trend to continue for the control period.

Commission's Analysis

The 5-year CAGR and 3-year CAGR growth rates were 7.56% and 6.97% respectively. PGVCL has projected a growth rate of 7.56%. In view of the potential for growth, the growth of 7.56% assumed by the company is approved.

The Commission approves the sales to Streetlights for the control period, as given in the Table below:

Table 6.23: Energy sales approved for Streetlights

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Streetlights (MU)	82	88	95	102	110

6.3.7 Industrial (HT)

The sales to this category accounts to about 28.9% of the total sales of the company. PGVCL has projected the sales to this category during the control period as below:

Table 6.24: Projected energy sales for Industrial (HT)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Industrial (HT) (MU)	4099	4235	4376	4522	4672

Petitioner's submission

The PGVCL has submitted that the sales growth rate between FY 2005-06 to FY 2009-10 was 17.81% and it expects the YoY trend of 3.3% to continue for the control period.

Commission's Analysis

The CAGR of this category was 17.81% over a 5 year period FY 2005-06 to FY 2009-10 and 1.45% over a three year period FY 2007-08 to FY 2009-10 and YoY growth for FY 2010 over FY 2009 was 3.3%. The 5 year CAGR was high at 17.81% due to low base of 1943 MU during FY 2005-06, this growth has not sustained and came down to 1.45% during 3 year period FY 2007-08 to FY 2009-10. PGVCL expects the YoY trend of 3.3% to continue for the control period, which is considered to be reasonable considering the growth during the last 3 years.

The Commission approves the energy sales to Industry (HT) during the control period, as given in the Table below:

Table 6.25: Approved energy sales for Industrial (HT)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Industrial (HT) (MU)	4099	4235	4376	4522	4672

6.3.8 Total Energy Sales

Total energy sales, as projected by PGVCL and as approved by the Commission for the control period, are given in the tables below:

Table 6.26: Energy sales projected by PGVCL for the control period FY 2011-12 to FY 2015-16

(MU)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
LT Consumers					
Residential	2581	2824	3089	3380	3697
Commercial	1049	1189	1348	1529	1733
Industrial LT	1436	1536	1643	1757	1879
Public water works	364	400	438	480	526
Agriculture	5157	5417	5676	5935	6194
Public lighting	82	88	95	102	110
LT Total (A)	**10670**	**11453**	**12289**	**13182**	**14139**
HT consumers					
Industrial HT	4099	4235	4376	4522	4672
Railway traction	-	-	-	-	-
HT Total (B)	**4099**	**4235**	**4376**	**4522**	**4672**
Grand Total	**14769**	**15688**	**16665**	**17704**	**18812**

Table 6.27: Energy sales approved by the Commission 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
LT Consumers					
Residential	2581	2824	3089	3380	3697
Commercial	1049	1189	1348	1529	1733
Industrial LT	1436	1536	1643	1757	1879
Public water works	364	400	438	480	526
Agriculture	4910	5025	5139	5253	5367
Public lighting	82	88	95	102	110
LT Total (A)	**10422**	**11062**	**11752**	**12501**	**13312**
HT consumers					
Industrial HT	4099	4235	4376	4522	4672
Railway traction	-	-	-	-	-
HT Total (B)	4099	4235	4376	4522	4672
Grand Total	**14521**	**15297**	**16128**	**17023**	**17984**

6.4 Distribution losses

The PGVCL has projected the distribution losses for the control period, as given below:

Table 6.28: Projected distribution losses for the control period

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Distribution Losses (%)	29.00	27.00	25.50	24.00	23.00

Petitioner's submission

The PGVCL has submitted that it has achieved significant reduction in distribution losses during recent years. The efforts will continue and will be enhanced.

It is further submitted that the loss reduction is a slow process and becomes increasingly difficult as the loss levels come down. In view of this, it is assumed that the distribution loss in FY 2011-12 to FY 2015-16 will reduce but at a lesser percentage.

Commission's Analysis

The Commission, in its Tariff Order dated 31st March, 2010 for FY 2010-11, considered the distribution loss of 30% same as in the MYT Order for FY 2010-11. PGVCL has projected lower loss level of 29.50% (RE), as furnished in APR for FY 2010-11.

The petitioner has however, projected a loss level of 29% for FY 2011-12 with loss reduction trajectory, as given in Table 6.28 above. The Commission considers the loss level 29% for FY 2011-12, and the trajectory projected for the control period is reasonable.

The Commission approves the distribution loss trajectory for the control period, as given in the Table below: The PGVCL is directed to strive to reduce the losses further during the control period.

Table 6.29: Distribution losses 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 losses of PGVCL (%)	29	27	25.5	24	23

6.5 Energy requirement

The total energy requirement of a distribution company to meet the total demand of its consumers would be the sum of estimated energy sales and the system losses (Distribution losses), as approved by the Commission.

The estimated energy sales, the distribution losses and estimated energy requirement for the control period FY 2011-12 to FY 2015-16 as projected by PGVCL are given in the table below:

Table 6.30: Total projected energy requirement during the control period

Sl. No.	Particulars	Units	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Estimated energy sales	MU	14769	15688	16665	17704	18812
2.	Distribution losses	MU	6032	5802	5704	5591	5619
		%	29.00	27.00	25.50	24.00	23.00
3.	Energy input required at the distribution periphery	MU	20801	21490	22369	23295	24431

Commission's Analysis

Based on the energy sales and the distribution losses approved by the Commission in paragraphs 6.2.8 and 6.3, and tables 6.27 and 6.29 the energy requirement is arrived at, as given in the Table below:

Table 6.31: Total approved energy requirement during the control period

Sl. No.	Particulars	Units	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Estimated energy sales	MU	14521	15297	16128	17023	17984
2.	Distribution losses	MU	5931	5658	5520	5376	5372
		%	29.00	27.00	25.50	24.00	23.00
3.	Energy input required at the distribution periphery	MU	20452	20955	21648	22399	23356

6.6 Energy balance

The summary of energy balance projected by PGVCL is as given below:

Table 6.32: Summary of energy balance projected by PGVCL

Sl. No.	Particulars	Units	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Estimated energy sales	MU	14769	15688	16665	17704	18812
2.	Distribution losses	MU	6032	5802	5704	5591	5619
		%	29.00	27.00	25.50	24.00	23.00
3.	Energy input required at the distribution periphery	MU	20801	21490	22369	23295	24431
4.	Transmission losses	MU	969	989	1017	1047	1098
		%	4.45	4.40	4.35	4.30	4.30

Sl. No.	Particulars	Units	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
5.	Total energy to be input to transmission system	MU	21770	22479	23386	24342	25529
6.	Pooled losses in PGCIl system	MU	363	431	485	520	541
7.	Total energy requirement	MU	22133	22910	23871	24862	26070

Commission's Analysis

The PGVCL has considered the transmission loss of 4.45% to 4.30% for the control period. The Commission has considered transmission loss of 4.12% as arrived by SLDC for FY 2010-11 and the total energy requirement is computed with transmission loss of 4.12% for the entire control period. The Commission approves the pool losses, which are determined by the RLDC as projected by PGVCL, subject to review in the truing up. Based on the approved energy sales, distribution losses and transmission losses, the approved energy balance is as given in the Table below:

Table 6.33: Approved energy balance for the control period

Sl. No.	Particulars	Units	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Energy sales	MU	14521	15297	16128	17023	17984
2.	Distribution losses	MU	5931	5658	5520	5376	5372
		%	29.00	27.00	25.50	24.00	23.00
3.	Energy input required at the distribution periphery	MU	20452	20955	21648	22399	23356
4.	Transmission losses	MU	879	900	930	962	1004
		%	4.12	4.12	4.12	4.12	4.12
5.	Total energy to be input to transmission system	MU	21331	21855	22578	23361	24360
6.	Pooled losses in PGCIL system	MU	363	431	485	520	541
8.	Total energy requirement	MU	21694	22286	23063	23881	24901

6.7 Revenue Requirement for the control period FY 2011-12 to FY 2015-16

The components for calculation of revenue requirement (total expenses) for the control period FY 2011-12 to FY 2015-16 are as follows:

- Power purchase cost

- Operation and maintenance expenses
- Depreciation
- Interest on loans and finance charges
- Interest on working capital
- Provision for bad debts
- Return on equity
- Provision for tax

6.8 Projected expenses by PGVCL and decisions of the Commission

The projected expenses by PGVCL under each head and the analysis and decisions of the Commission are discussed below:

6.8.1 Power purchase

Petitioner's submission

The PGVCL has submitted that when the erstwhile Gujarat Electricity Board (GEB) was unbundled into seven entities, it was decided by the State Government that Gujarat Urja Vikas Nigam Limited (GUVNL) shall purchase the entire power requirement from GSECL, central generating stations, traders, MPPs, IPPs and any other source to meet the demand of DISCOMs and shall perform the activity of bulk supplier of power to all the four Distribution companies at bulk supply tariff. In accordance with the arrangement related to power procurement, the distribution licensees have entered into bulk supply arrangement / agreement with GUVNL to meet the supply obligation.

It is also submitted by PGVCL that the State Government has envisaged uniform retail supply tariff in the four DISCOMs (of the unbundled GEB), so that the consumers in the similar category in the State could have a similar tariff.

It is further submitted that since 70% - 80% of the total cost incurred by DISCOMs is for power purchase, the same plays a major role in determining the ARR, as well as gap / (surplus) for the DISCOMS, for a particular year. Since the consumer profile and consumption pattern are different in the four distribution companies, the revenue earning capabilities of each of the DISCOMs differs - resulting in different Annual Revenue Requirement. Therefore, it is necessary to build a mechanism in the projections to give them a level-playing field. This is proposed to be achieved by differential bulk supply tariff (BST) to each of the DISCOMs to ensure uniform retail consumer tariffs in the four DISCOMs.

6.8.2 Power purchase sources

Petitioner's submission

The various sources of power purchase by GUVNL consist of: State generating plants (GSECL), central sector – NTPC and NPC, renewable sources of power (hydro, solar and wind), IPPs, other sources, etc. The power purchase sources have been differentiated into existing and additional capacity envisaged during the control period.

(i) Existing capacity with GUVNL

The existing capacity contracted by GUVNL, consists of: GSECL plants, IPPs, central sector plants and renewable sources, RLNG gas based plants where the plants are commissioned before 31st March, 2010. The names of the existing power plants, their operational parameters, capacity allocated to GUVNL, their fixed cost as per capacity contracted, along with the variable cost of generation per unit are given below:

Table 6.34: Existing capacity contracted by GUVNL, as furnished by PGVCL

Sl. No	Particulars	Rated Capacity Allocated to GUVNL	Auxiliary Consumption (%)	Plant Load Factor (%)	Fixed Cost (Rs. crore)	Variable Cost (Rs./kWh)
GSECL Plants:						
1	Ukai TPS	850	9.00	75%	247	1.71
2	Ukai Hydro	305	0.70	13%	24	0.00
3	Gandhinagar I to IV	660	10.00	79%	266	2.38
4	Gandhinagar V	210	9.00	85%	97	2.13
5	Wanakbori I to VI	1,260	9.00	85%	366	2.11
6	Wanakbori VII	210	9.00	85%	95	2.02
7	Sikka TPS	240	11.00	68%	122	2.77
8	Kutch Lignite I to III	215	12.00	66%	222	1.18
9	Kutch Lignite IV	75	12.00	75%	129	1.11
10	Dhuvaran oi l	-	-	0%	-	-
11	Kadana Hydro	242	1.19	6%	61	0.00
12	Utran Gas Based	75	4.00	80%	29	2.37
13	Dhuvaran Gas Based - Stage-I	91	3.00	80%	48	2.41
14	Dhuvaran Gas Based - Stage-II	94	3.00	80%	57	2.39
15	Utran Extension	295	3.00	80%	279	2.07
	Sub-total	**4822**			**2042**	
IPPs:						

Sl. No	Particulars	Rated Capacity Allocated to GUVNL	Auxiliary Consumption (%)	Plant Load Factor (%)	Fixed Cost (Rs. crore)	Variable Cost (Rs./kWh)
1	ESSAR	242	3.00	70%	202	2.95
2	GPEC	391	2.90	70%	307	2.40
3	GIPCL II (160)	82	2.90	80%	27	1.95
4	GIPCL-SLPP	250	10.00	75%	158	1.14
5	GSEG	126	2.90	80%	101	1.77
6	GIPCL - I (145)	21	2.90	80%	11	2.15
7	GMDC - Akrimota	250	10.00	75%	203	0.74
8	GIPCL, Expansion	250	10.00	80%	158	1.14
	Sub-total	**1612**			**1167**	
Central Sector:						
1	NPC - Tarapur- 1&2	160	10.00	80%	-	0.95
2	NPC - Kakrapar	125	12.50	80%	-	2.19
3	NPC - Tarapur- 3&4	274	10.00	80%	-	2.32
4	NTPC - KORBA	360	7.93	85%	74	0.76
5	NTPC - VINDHYACHAL-I	230	9.00	85%	58	1.27
6	NTPC - VINDHYACHAL-II	239	7.50	85%	98	1.23
7	NTPC - VINDHYACHAL-III	266	7.50	85%	165	1.21
8	NTPC - KAWAS	143	3.00	85%	58	2.32
9	NTPC - JHANOR	181	3.00	85%	101	2.14
11	SSNNL - Hydro	232	0.50	14%	-	2.05
12	NTPC - Kahalgaon (New)	141	7.50	85%	172	1.78
13	NTPC - Kahalgaon (New)	273	6.50	85%	192	0.88
14	NTPC - KORBA II	96	6.50	85%	102	0.72
	Sub-total	**2720**			**1020**	
Renewables:						
1	Wind Farms (1.75)	2 2	-	23%	-	1.75
2	Wind Farms (3.37)	782	-	23%	-	3.37
3	Wind Farms (3.56)	229	-	23%	-	3.56
4	Biomass	30	-	80%	-	4.40
5	Hydro	9	-	70%	-	3.52
	Sub-total	**1020**				
RLNG Capacity @15%:						
1	ESSAR - 300	5 8	3.00	70%	49	5.21
2	GPEC - 655	264	2.90	70%	208	5.77
3	Utran Gas Based - 135	60	4.00	80%	23	4.96
4	Utran Extension - 375	80	3.00	80%	62	5.26
5	Dhuvran Gas Based - Stage 1 - 107	16	3.00	80%	8	5.26
6	Dhuvran Gas Based - Stage 2 - 112	18	3.00	80%	11	5.49
7	GIPCL-II (160) 165	83	2.90	80%	27	5.21
8	GSEG-156	30	2.90	80%	24	5.49
9	GIPCL-I (145)-42	21	2.90	80%	12	5.59
10	NTPC-Kawas	44	3.00	85%	18	5.59
11	NTPC-Jhanor-237	56	3.00	85%	31	-
	Sub-total	**730**			**473**	

Sl. No	Particulars	Rated Capacity Allocated to GUVNL	Auxiliary Consumption (%)	Plant Load Factor (%)	Fixed Cost (Rs. crore)	Variable Cost (Rs./kWh)
Others:						
1	Captive Power Plant (MU)	8	-	80%	-	3.64
	Grand Total	**10964**			**4702**	

The existing contracted capacity tied up by GUVNL as on 31st March, 2010 is 10964 MW.

(ii) Capacity additions for FY 2011-12 to FY 2015-16

The capacity addition available for the State, which includes capacity additions of GSECL, central stations, IPPs and others and competitive bidding capacity, is given in the Table below with details of capacity allocated to Gujarat and unit-wise tentative commissioning schedule. PPAs are already entered into for various stations and are expected to get commissioned during the control period FY 2011-12 to FY 2015-16. GUVNL will purchase power from these stations.

Table 6.35: New capacity allocation and date of commissioning (COD) during the control period

Sl. No.	Particulars	Unit Size (MW)	CoD Month-wise)
GSECL Plants:			
1	Ukai Expansion 6	500	Apr-12
2	Sikka 3 & 4	500	Mar-13
3	Dhuvaran CCPP Ext - 3	180	Mar-14
4	Wanakbori Expansion	800	Mar-16
5	Dhuvaran CCPP Ext - 3	180	Sep-14
	Sub-total	**2160**	
IPPs:			
1	BECL	500	Mar-14
2	GIPCL Addition	500	Mar-15
	Sub-total	**1000**	
Central Sector:			
1	NTPC - Sipat Stage - I	180	Mar-11
2	NTPC - Sipat Stage - I	180	Sep-11
3	NTPC - Sipat Stage - I	180	Mar-12
4	NTPC - Mauda STPS-I	120	Mar-12
5	NTPC - Mauda STPS-I	120	Sep-12
6	NTPC - Barh STPS-I	87	Sep-13
7	NTPC - Barh STPS-I	87	Mar-14
8	NTPC - Barh STPS-I	86	Sep-14
9	NTPC - Vindhyachal STPS-IV	240	Mar-13
10	NTPC - Barh STPS-II	87	Mar-13
11	NTPC - Barh STPS-II	87	Sep-13
12	NTPC - Mauda STPS-II	240	Mar-16
13	Mundra UMPP	361	Sep-11

Sl. No.	Particulars	Unit Size (MW)	CoD Month-wise)
14	Mundra UMPP	361	Mar-14
15	Mundra UMPP	542	Sep-14
16	Mundra UMPP	542	Mar-15
17	Ti laiya UMPP	60	Mar-14
18	Ti laiya UMPP	120	Sep-14
19	Ti laiya UMPP	120	Apr-15
20	NPC kakrapar addition	476	Mar-16
21	NTPC - Lara	140	Mar-16
	Sub-total	**4416**	
Renewables:			
1	Solar Photovoltic	372	Jan-12
2	Solar Thermal	25	Jan-12
	Sub-total	**397**	
Competitive Bidding:			
1	APPL	1,500	Mar-11
2	APPL	500	Oct-11
3	APPL	-	Jan-00
4	Aryan	200	Mar-12
5	Essar – 1000 MW	500	Dec-11
6	Essar – 1000 MW	500	Jun-12
7	Wardha Power - KSK Mahanadi Power Co	1,010	May-15
8	Essar - 800 MW	800	May-15
9	Shapoorji Pal lonj i	800	May-15
	Sub-total	**5810**	
RLNG Capacity@15%:			
1	GSEG Expansion	351	Mar-12
2	GSPC-Pipavav	350	Mar-12
3	GSPC-Pipavav	350	Sep-12
	Sub-total	1051	
	Grand Total	14834	

The total additional capacity envisaged to get commissioned and allocated to GUVNL is arrived at 14834 MW. The additional capacity envisaged during the control period, along with operational parameters, fixed cost and variable cost per unit, are given below:

Table 6.36: Additional capacity envisaged for FY 2011-12 to FY 2015-16

Sl. No.	Particulars	Rated capacity allocated to GUVNL (MW)	Auxiliary consumption (%)	Plant load factor (%)					Fixed cost (Rs. crores)	Variable cost (Rs./ kWh)
				FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16		
	GSECL plants									
1.	Wanakbori expansion	800	**9.00**	0	0	0	0	85	673	1.60
2.	Ukai expansion 6	500	8.50	0	80	80	80	80	401	1.54
3.	Sikka 3 & 4	500	8.50	0	7	80	80	80	401	1.99
4.	Dhuvaran CCPP Ext.-3	360	3.00	0	0	3	63	80	329	3.39
	IPPs:									

Sl. No.	Particulars	Rated capacity allocated to GUVNL (MW)	Auxiliary consumption (%)	Plant load factor (%)					Fixed cost (Rs. crores)	Variable cost (Rs./ kWh)
				FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16		
1	GIPCL addition	500	10.00	0	0	0	7	80	315	1.14
2	BECL	500	11.00	0	0	7	80	80	390	1.20
	Central Sector									
1	NPC Kakrapar addition	476	12.50	0	0	0	0	7	-	2.89
2	NTPC-Lara	140	8.50	0	0	0	0	7	170	1.31
3	NTPC-Sipat stage I	540	7.50	47	85	85	85	85	421	0.88
4	NTPC-Mauda STPS-I	240	6.50	4	67	85	85	85	242	0.89
5	NTPC-Barh STPS 1	260	6.50	0	0	19	73	85	169	0.81
6	NTPC-Vindyachal STPS-IV	240	6.50	0	7	85	85	85	287	0.87
7	NTPC-Barh STPS II	174	6.50	0	4	67	85	85	102	0.89
8	NTPC-Mauda STPS-II	240	6.50	0	0	0	0	7	470	1.05
9	Mundra UMPP	1805	-	0	16	17	48	80	1448	0.91
10	Tilaiya UMPP	300	-	0	0	1	35	80	143	0.95
	Renewables									
1	Solar Photovoltaic	944	-	2	11	20	20	20	-	15.00
2	Solar Thermal	25	-	5	20	20	20	20	-	11.00
	Competitive Bidding									
1	APPL	2000	-	70	80	80	80	80	1634	1.43
2	Aryan	200	-	7	80	80	80	80	226	0.55
3	Essar 1000 MW	1000	-	13	73	80	80	80	82	1.27
4	Wardha power – KSK Mahanadi Power Co.	1010	-	0	0	0	0	73	1023	0.62
5	Essar 800 mW	800	-	0	0	0	0	73	798	1.38
6	Shapoorji Pallonji	800	-	0	0	0	0	73	798	1.38
	RLNG Capacity @15%									
1	GSEG Expansion	351	3.50	7	80	80	80	80	238	5.00
2	GSPC Pipavav	700	3.50	3	63	80	80	80	473	5.00

6.8.3 Power purchase cost

Petitioner's submission

The PGVCL has submitted that, in order to minimise the power purchase cost, GUVNL has worked out a comprehensive merit order despatch (MOD) as shown below:

- The dispatch from individual generating stations is worked out, based on the merit order for the variable cost of each generating unit.
- The NPC power plants, renewable, captive power plants and hydro plants have been considered as must run power plants. Hence, they have been excluded from merit order calculations.
- The RLNG spot gas based power plants' PLF is considered at 30% for FY 2010-11 and 5% from FY 2012-13 onwards due to the high variable cost. The power purchase availability from these plants has been capped in order to minimise the impact of the high variable cost of generation from these plants.
- During merit order despach, at least 50% availability of each plant has been considered to take care of the peak loads and peak season.
- The balance power based on the 80% availability, or the actual availability, whichever is less, is considered to meet any additional demand which is not met after inclusion of must run power plant and 50% capacity of the other plants.
- Fixed and variable costs for GSECL have been taken as approved by the Commission for the control period of FY 2012-16 in its Order dated 11th April, 2011 and the same has been taken for future years, as well. Transmission Tariff for GETCO has been taken as approved by the Commission for the control period FY 2012-16 in MYT Order dated 31st March, 2011.
- For IPP and central sector, fixed cost and variable costs are taken as per actuals for FY 2009-10. The availability has been projected, based on the operation of a plant in a particular year and the past trend of energy availability from the plants.

Based on the above factors, the plant-wise dispatchable energy and cost of purchase by GUVNL from various plants of GSECL, central generating stations, IPPs and other sources, the generation fixed cost due to the capacity contracted, and variable cost of generation per unit are given in the Table below. The dispatchable energy (MU), based on the allocated capacity and merit order stacking, consists both for supplying power to DISCOMs, as well as for trading purpose.

Table 6.37: Power purchase cost projected by GUVNL for FY 2011-12, as furnished by PGVCL

Sl. No	Particulars	FY 2011-12					
		Available MU	Dispatch MU	Fixed Cost (Rs.crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs.crore)	Total Cost (Rs. crore)
	GSECL Plant						
1	Ukai TPS	5 ,082	5 ,082	247	1.71	869	**1,116**
2	Ukai Hydro	345	345	24	0 .00	0	24
3	Gandhinagar I to IV	4,111	2 ,602	2 66	2 .38	618	8 84
4	Gandhinagar V	1,339	837	97	2 .13	178	2 76
5	Wanakbori I to VI	8,035	5 ,022	3 66	2 .11	1 ,059	1,424
6	Wanakbori VII	1,339	1 ,339	95	2 .02	271	3 65
8	Sikka TPS	1,272	936	1 10	2 .77	259	3 69
9	Kutch Lignite I to I II	1,094	1 ,094	1 95	1 .18	129	3 24
10	Kutch Lignite IV	434	434	1 29	1 .11	48	1 77
11	Dhuvaran oi l	-	-	-	-	-	-
12	Kadana Hydro	126	126	61	0 .00	0	61
13	Utran Gas Based	505	315	29	2 .37	75	1 03
14	Dhuvaran Gas Based - Stage-I	616	385	48	2 .41	93	1 41
15	Dhuvaran Gas Based - Stage-II	642	401	57	2 .39	96	1 52
16	Utran Extension	2,005	1 ,878	2 29	2 .07	389	6 18
	IPPs						
20	ESSAR	1,439	1 ,028	2 02	2 .95	303	5 05
21	GPEC	2,328	1 ,663	3 07	2 .40	399	7 07
22	GIPCL II (160)	559	559	27	1 .95	109	1 35
23	GIPCL-SLPP	1,478	1 ,478	1 58	1 .14	169	3 27
24	GSEG	858	858	1 01	1 .77	152	2 53
25	GIPCL - I (145)	140	87	11	2 .15	19	30
27	GMDC - Akrimota	1,478	1 ,478	2 03	0 .74	109	3 12
28	GSEG Expansion	201	201	20	5 .00	101	1 21
29	GIPCL, Expansion	1,577	1 ,577	1 58	1 .14	180	3 38
30	GSPC-Pipavav	200	200	20	5 .00	100	1 20
	Central sector						
32	NPC - Tarapur- 1&2	1,009	1 ,009	-	0 .95	96	96
33	NPC - Kakrapar	767	767	-	2 .19	168	1 68
35	NPC - Tarapur- 3&4	1,728	1 ,728	-	2 .32	402	4 02
37	NTPC - KORBA	2,323	2 ,323	74	0 .76	175	2 49
38	NTPC - VINDHYACHAL - I	1,467	1 ,467	58	1 .27	186	2 43
39	NTPC - VINDHYACHAL - II	1,549	1 ,549	98	1 .23	191	2 89
40	NTPC - VINDHYACHAL - III	1,724	1 ,724	1 65	1 .21	209	3 75
41	NTPC - KAWAS	971	607	58	2 .32	141	1 98
42	NTPC - JHANOR	1,231	769	1 01	2 .14	164	2 66
43	NTPC-Sipat Stage- I	2,066	2 ,066	2 34	0 .88	181	4 15
44	SSNNL - Hydro	283	283	-	2 .05	58	58
45	NTPC - Kahalgaon (New)	914	914	1 72	1 .78	162	3 35
46	NTPC - Sipat Stage-	1,789	1 ,789	1 92	0 .88	157	3 50

Sl. No	Particulars	FY 2011-12					
		Available MU	Dispatch MU	Fixed Cost (Rs.crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs.crore)	Total Cost (Rs. crore)
	II						
47	NTPC - Mauda STPS-I	7 1	71	10	0 .89	6	17
52	NTPC - KORBA II	629	629	1 02	0 .72	45	1 48
53	Mundra UMPP	1,472	1 ,472	1 69	0 .91	133	3 02
55	**Captive Power Plant (MU)**	5 6	56	-	3 .64	20	20
	Renewables						
56	Wind Farms (1.75)	4 4	44	-	1 .75	8	8
57	Wind Farms (3.37)	1,575	1 ,575	-	3 .37	531	5 31
58	Wind Farms (3.56)	462	462	-	3 .56	164	1 64
59	Solar Photovoltaic	162	162	-	15.00	243	2 43
60	Solar Thermal	1 1	11	-	11.00	12	12
61	Biomass	210	210	-	4 .40	93	93
62	Hydro	5 3	53	-	3 .52	19	19
	Competitive Bidding						
63	APPL	1 2,264	12,264	1,430	1 .43	1 ,759	3,188
64	Aryan	119	119	19	0 .55	7	26
	RLNG						
65	Essar - 1000 MW	1,168	1 ,168	1 37	1 .27	148	2 85
69	ESSAR - 300	148	148	49	5 .34	79	1 27
70	GPEC - 655	674	674	2 08	5 .21	351	5 59
71	Utran Gas Based - 135	151	151	23	5 .77	87	1 10
72	Utran Extension-375	204	204	62	4 .96	101	1 63
73	Dhuvran Gas Based - Stage 1 - 107	4 1	41	8	5 .26	21	30
74	Dhuvran Gas Based - Stage 2 - 112	4 6	46	11	5 .26	24	35
75	GIPCL II (160) - 165	212	212	27	5 .49	116	1 43
76	GSEG - 156	7 7	77	24	5 .21	40	64
77	GIPCL - I (145) - 42	5 4	54	12	5 .49	30	41
78	NTPC-KAWAS-187	112	112	18	5 .59	63	81
79	NTPC-JHANOR-237	142	142	31	5 .59	80	1 11
	Total	**75,181**	**67,077**	**6,652**		**12,195**	**18,847**

Table 6.38: Power purchase cost projected by PGVCL for FY 2012-13

Sl. No	Particulars	FY 2012-13					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs. /Unit)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
	GSECL Plant						
1	Ukai TPS	5,082	3 ,388	247	1.71	579	826
2	Ukai Hydro	345	345	24	0.00	0	24
3	Gandhinagar I to IV	4,111	2 ,602	266	2.38	618	8 84
4	Gandhinagar V	1,339	837	97	2.13	178	2 76
5	Wanakbori I to VI	8,035	5 ,022	366	2.11	1 ,059	1,424
6	Wanakbori VII	1,339	837	95	2.02	169	2 64

Sl. No	Particulars	FY 2012-13					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs. /Unit)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
8	Sikka TPS	1,272	936	110	2.77	259	3 69
9	Kutch Lignite I to III	1,243	1 ,243	222	1.18	147	3 68
10	Kutch Lignite IV	434	434	129	1.11	48	1 77
11	Dhuvaran oi l	-	-	-	-	-	-
12	Kadana Hydro	126	126	61	0.00	0	61
13	Utran Gas Based	505	315	29	2.37	75	1 03
14	Dhuvaran Gas Based - Stage-I	616	385	48	2.41	93	1 41
15	Dhuvaran Gas Based - Stage-II	642	401	57	2.39	96	1 52
16	Utran Extension	2,005	1 ,253	229	2.07	260	4 88
17	Ukai Expansion 6	3,206	2 ,004	401	1.54	309	7 09
18	Sikka 3 & 4	272	272	34	1.99	54	88
	IPPs						
20	ESSAR	1,439	1 ,028	202	2.95	303	5 05
21	GPEC	2,328	1 ,663	307	2.40	399	7 07
22	GIPCL II (160)	559	349	27	1.95	68	95
23	GIPCL-SLPP	1,478	1 ,478	158	1.14	169	3 27
24	GSEG	858	536	101	1.77	95	1 96
25	GIPCL - I (145)	140	87	11	2.15	19	30
27	GMDC - Akrimota	1,478	1 ,478	203	0.74	109	3 12
28	GSEG Expansion	149	149	238	5.00	74	3 12
29	GIPCL, Expansion	1,577	1 ,577	158	1.14	180	3 38
30	GSPC-Pipavav	296	296	374	5.00	148	5 22
	Central sector						
32	NPC - Tarapur- 1&2	1,009	1 ,009	-	0.95	96	96
33	NPC - Kakrapar	767	767	-	2.19	168	1 68
35	NPC - Tarapur- 3&4	1,728	1 ,728	-	2.32	402	4 02
37	NTPC - KORBA	2,323	2 ,323	74	0.76	175	2 49
38	NTPC - VINDHYACHAL - I	1,467	1 ,467	58	1.27	186	2 43
39	NTPC - VINDHYACHAL - II	1,549	1 ,549	98	1.23	191	2 89
40	NTPC - VINDHYACHAL - III	1,724	1 ,724	165	1.21	209	3 75
41	NTPC - KAWAS	971	607	58	2.32	141	1 98
42	NTPC - JHANOR	1,231	769	101	2.14	164	2 66
43	NTPC-Sipat Stage-I	3,500	3 ,500	421	0.88	307	7 28
44	SSNNL - Hydro	283	283	-	2.05	58	58
45	NTPC - Kahalgaon (New)	914	571	172	1.78	102	2 74
46	NTPC - Sipat Stage-II	1,789	1 ,789	192	0.88	157	3 50
47	NTPC - Mauda STPS-I	1,321	1 ,321	191	0.89	118	3 09
49	NTPC - Vindhyachal STPS-IV	142	142	24	0.87	12	37
50	NTPC - Barh STPS-II	51	51	4	0.89	5	9
52	NTPC - KORBA II	629	629	102	0.72	45	1 48
53	Mundra UMPP	2,530	2 ,530	290	0.91	229	5 19
55	**Captive Power Plant (MU)**	56	56	-	3.64	20	20
	Renewables						

Sl. No	Particulars	FY 2012-13					
		Available MU	**Dispatch MU**	**Fixed Cost (Rs. crore)**	**Variable Cost (Rs. /Unit)**	**Variable Cost (Rs. crore)**	**Total Cost (Rs. crore)**
56	Wind Farms (1.75)	4 4	44	-	1.75	8	8
57	Wind Farms (3.37)	1,575	1 ,575	-	3.37	531	5 31
58	Wind Farms (3.56)	462	462	-	3.56	164	1 64
59	Solar Photovoltaic	898	898	-	15.00	1 ,347	1,347
60	Solar Thermal	44	44	-	11.00	48	48
61	Biomass	210	210	-	4.40	93	93
62	Hydro	53	53	-	3.52	19	19
	Competitive Bidding						
63	APPL	14,016	8 ,760	1,634	1.43	1 ,256	2,890
64	Aryan	1,402	1 ,402	226	0.55	77	3 03
	RLNG						
65	Essar - 1000 MW	6,422	6 ,145	751	1.27	780	1,532
69	ESSAR - 300	25	25	49	5.34	13	62
70	GPEC - 655	112	112	208	5.21	58	2 66
71	Utran Gas Based-135	25	25	23	5.77	15	38
72	Utran Extension - 375	34	34	62	4.96	17	79
73	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
74	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
75	GIPCL II (160) - 165	35	35	27	5.49	19	46
76	GSEG - 156	13	13	24	5.21	7	31
77	GIPCL - I (145) - 42	9	9	12	5.49	5	17
78	NTPC - KAWAS - 187	19	19	18	5.59	10	28
79	NTPC - JHANOR - 237	24	24	31	5.59	13	44
	Total	**90,295**	**71,759**	**9,229**		**12,781**	**22,010**

Table 6.39: Power purchase cost projected by PGVCL for FY 2013-14

Sl. No	Particulars	FY 2013-14					
		Available MU	**Dispatch MU**	**Fixed Cost (Rs.crore)**	**Variable Cost (Rs /Unit)**	**Variable Cost (Rs.crore)**	**Total Cost (Rs. crore)**
	GSECL Plants						
1	Ukai TPS	5,082	3,388	247	1.71	579	826
2	Ukai Hydro	345	345	24	0.00	0	24
3	Gandhinagar I to IV	4,111	2 ,602	266	2.38	618	8 84
4	Gandhinagar V	1,339	837	97	2.13	178	2 76
5	Wanakbori I to VI	8,035	5 ,022	366	2.11	1 ,059	1,424
6	Wanakbori VII	1,339	837	95	2.02	169	2 64
8	Sikka TPS	1,329	936	115	2.77	259	3 74
9	Kutch Lignite I to III	1,243	1 ,243	222	1.18	147	3 68
10	Kutch Lignite IV	434	434	129	1.11	48	1 77
11	Dhuvaran oi l	-	-	-	-	-	-
12	Kadana Hydro	126	126	61	0.00	0	61
13	Utran Gas Based	505	315	29	2.37	75	1 03

Sl. No	Particulars	FY 2013-14					
		Available MU	Dispatch MU	Fixed Cost (Rs.crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs.crore)	Total Cost (Rs. crore)
14	Dhuvaran Gas Based - Stage-I	616	385	48	2.41	93	1 41
15	Dhuvaran Gas Based - Stage-II	618	401	54	2.39	96	1 50
16	Utran Extension	2,005	1 ,253	229	2.07	260	4 88
17	Ukai Expansion 6	3,206	2 ,004	401	1.54	309	7 09
18	Sikka 3 & 4	3,206	2 ,004	401	1.99	398	7 99
19	Dhuvaran CCPP Ext - 3	104	104	14	3.39	35	49
	IPPs						
20	ESSAR	1,439	1 ,028	202	2.95	303	5 05
21	GPEC	2,328	1 ,663	307	2.40	399	7 07
22	GIPCL II (160)	559	349	27	1.95	68	95
23	GIPCL-SLPP	1,478	1 ,478	158	1.14	169	3 27
24	GSEG	858	536	101	1.77	95	1 96
25	GIPCL - I (145)	140	87	11	2.15	19	30
27	GMDC - Akrimota	1,478	1 ,478	203	0.74	109	3 12
28	GSEG Expansion	149	149	238	5.00	74	3 12
29	GIPCL, Expansion	1,577	1 ,577	158	1.14	180	3 38
30	GSPC-Pipavav	296	296	473	5.00	148	6 21
31	BECL	265	265	33	1.20	32	65
	Central sector						
32	NPC - Tarapur- 1&2	1,009	1 ,009	-	0.95	96	96
33	NPC - Kakrapar	767	767	-	2.19	168	1 68
35	NPC - Tarapur- 3&4	1,728	1 ,728	-	2.32	402	4 02
37	NTPC - KORBA	2,323	2 ,323	74	0.76	175	2 49
38	NTPC - VINDHYACHAL - I	1,467	1 ,467	58	1.27	186	2 43
39	NTPC - VINDHYACHAL - II	1,549	1 ,549	98	1.23	191	2 89
40	NTPC - VINDHYACHAL - III	1,724	1 ,724	165	1.21	209	3 75
41	NTPC - KAWAS	971	607	58	2.32	141	1 98
42	NTPC - JHANOR	1,231	769	101	2.14	164	2 66
43	NTPC - Sipat Stage - I	3,500	3 ,500	421	0.88	307	7 28
44	SSNNL - Hydro	283	283	-	2.05	58	58
45	NTPC - Kahalgaon (New)	914	571	172	1.78	102	2 74
46	NTPC - Sipat Stage-II	1,789	1 ,789	192	0.88	157	3 50
47	NTPC - Mauda STPS-I	1,573	1 ,573	242	0.89	140	3 82
48	NTPC-Barh STPS-I	403	403	38	0.81	33	70
49	NTPC - Vindhyachal STPS-IV	1,573	1 ,573	287	0.87	137	4 24
50	NTPC-Barh STPS-II	957	957	80	0.89	85	1 66
52	NTPC - KORBA II	629	629	102	0.72	45	1 48
53	Mundra UMPP	2,745	2 ,745	314	0.91	248	5 63
54	Ti laiya UMPP	36	36	2	0.95	3	6
55	**Captive Power Plant (MU)**	56	56	-	3.64	20	20
	Renewables						
56	Wind Farms (1.75)	4 4	44	-	1.75	8	8

Sl. No	Particulars	FY 2013-14					
		Available MU	Dispatch MU	Fixed Cost (Rs.crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs.crore)	Total Cost (Rs. crore)
57	Wind Farms (3.37)	1,575	1 ,575	-	3.37	531	5 31
58	Wind Farms (3.56)	462	462	-	3.56	164	1 64
59	Solar Photovoltaic	1,653	1 ,653	-	15.00	2 ,480	2,480
60	Solar Thermal	44	44	-	11.00	48	48
61	Biomass	210	210	-	4.40	93	93
62	Hydro	53	53	-	3.52	19	19
	Competitive Bidding						
63	APPL	14,016	8 ,760	1,634	1.43	1 ,256	2,890
64	Aryan	1,402	1 ,402	226	0.55	77	3 03
	RLNG						
65	Essar - 1000 MW	7,008	5 ,031	820	1.27	639	1,459
69	ESSAR - 300	25	25	49	5.34	13	62
70	GPEC - 655	112	112	208	5.21	58	2 66
71	Utran Gas Based - 135	25	25	23	5.77	15	38
72	Utran Extension - 375	34	34	62	4.96	17	79
73	Dhuvran Gas Based-Stage-1- 107	7	7	8	5.26	4	12
74	Dhuvran Gas Based-Stage-2-112	8	8	10	5.26	4	14
75	GIPCL II (160)-165	35	35	27	5.49	19	46
76	GSEG - 156	13	13	24	5.21	7	31
77	GIPCL -I (145) - 42	9	9	12	5.49	5	17
78	NTPC-KAWAS-187	19	19	18	5.59	10	28
79	NTPC - JHANOR - 237	24	24	31	5.59	13	44
	Total	**98,213**	**76,743**	**10,268**		**14,466**	**24,733**

Table 6.40: Power purchase cost projected by PGVCL for FY 2014-15

Sl. No	Particulars	FY 2014-15					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
	GSECL Plants						
1	Ukai TPS	5,082	3 ,388	247	1.71	579	826
2	Ukai Hydro	345	345	24	0.00	0	24
3	Gandhinagar I to IV	4,111	2 ,602	266	2.38	618	8 84
4	Gandhinagar V	1,339	837	97	2.13	178	2 76
5	Wanakbori I to VI	8,035	5 ,022	366	2.11	1 ,059	1,424
6	Wanakbori VII	1,339	837	95	2.02	169	2 64
8	Sikka TPS	1,329	936	115	2.77	259	3 74
9	Kutch Lignite I to III	1,243	829	222	1.18	98	3 19
10	Kutch Lignite IV	434	289	129	1.11	32	1 61
11	Dhuvaran oi l	-	-	-	-	-	-
12	Kadana Hydro	126	126	61	0.00	0	61
13	Utran Gas Based	505	315	29	2.37	75	1 03
14	Dhuvaran Gas Based - Stage-I	616	385	48	2.41	93	1 41
15	Dhuvaran Gas Based - Stage-II	642	401	57	2.39	96	1 52

Sl. No	Particulars	FY 2014-15					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
16	Utran Extension	2,005	1 ,253	229	2.07	260	4 88
17	Ukai Expansion 6	3,206	2 ,004	401	1.54	309	7 09
18	Sikka 3 & 4	3,206	2 ,004	401	1.99	398	7 99
19	Dhuvaran CCPP Ext - 3	1,934	1 ,529	260	3.39	518	7 79
	IPPs						
20	ESSAR	1,439	1 ,028	202	2.95	303	5 05
21	GPEC	2,328	1 ,663	307	2.40	399	7 07
22	GIPCL II (160)	559	349	27	1.95	68	95
23	GIPCL-SLPP	1,478	986	158	1.14	112	2 71
24	GSEG	858	536	101	1.77	95	1 96
25	GIPCL - I (145)	140	87	11	2.15	19	30
26	GIPCL Addition	268	268	31	1.14	31	61
27	GMDC - Akrimota	1,478	1 ,478	203	0.74	109	3 12
28	GSEG Expansion	149	149	238	5.00	74	3 12
29	GIPCL, Expansion	1,577	986	158	1.14	112	2 70
30	GSPC-Pipavav	296	296	473	5.00	148	6 21
31	BECL	3,119	1 ,949	390	1.20	234	6 24
	Central sector						
32	NPC - Tarapur- 1&2	1,009	1 ,009	-	0.95	96	96
33	NPC - Kakrapar	767	767	-	2.19	168	1 68
35	NPC - Tarapur- 3&4	1,728	1 ,728	-	2.32	402	4 02
37	NTPC - KORBA	2,323	2 ,323	74	0.76	175	2 49
38	NTPC - VINDHYACHAL - I	1,467	917	58	1.27	116	1 74
39	NTPC - VINDHYACHAL - II	1,549	968	98	1.23	119	2 18
40	NTPC - VINDHYACHAL - III	1,724	1 ,078	165	1.21	131	2 96
41	NTPC - KAWAS	971	607	58	2.32	141	1 98
42	NTPC - JHANOR	1,231	769	101	2.14	164	2 66
43	NTPC-Sipat Stage-I	3,500	3 ,500	421	0.88	307	7 28
44	SSNNL - Hydro	283	283	-	2.05	58	58
45	NTPC - Kahalgaon (New)	914	571	172	1.78	102	2 74
46	NTPC-Sipat Stage-II	1,789	1 ,754	192	0.88	154	3 47
47	NTPC - Mauda STPS-I	1,573	983	242	0.89	87	3 30
48	NTPC - Barh STPS-I	1,559	1 ,559	146	0.81	126	2 72
49	NTPC - Vindhyachal STPS-IV	1,573	1 ,573	287	0.87	137	4 24
50	NTPC-Barh STPS-II	1,140	713	102	0.89	63	1 65
52	NTPC - KORBA II	629	629	102	0.72	45	1 48
53	Mundra UMPP	7,586	7 ,586	869	0.91	687	1,555
54	Ti laiya UMPP	909	909	62	0.95	86	1 48
55	**Captive Power Plant (MU)**	56	56	-	3.64	20	20
	Renewables						
56	Wind Farms (1.75)	4 4	44	-	1.75	8	8
57	Wind Farms (3.37)	1,575	1 ,575	-	3.37	531	5 31
58	Wind Farms (3.56)	462	462	-	3.56	164	1 64
59	Solar Photovoltaic	1,653	1 ,653	-	15.00	2 ,480	2,480
60	Solar Thermal	44	44	-	11.00	48	48
61	Biomass	210	210	-	4.40	93	93

Sl. No	Particulars	FY 2014-15					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs. crore)	Total Cost (Rs. crore)
62	Hydro	53	53	-	3.52	19	19
	Competitive Bidding						
63	APPL	14,016	8 ,760	1,634	1.43	1 ,256	2,890
64	Aryan	1,402	1 ,402	226	0.55	77	3 03
	RLNG						
65	Essar - 1000 MW	7,008	4 ,380	820	1.27	556	1,376
69	ESSAR - 300	25	25	49	5.34	13	62
70	GPEC - 655	112	112	208	5.21	58	2 66
71	Utran Gas Based - 135	25	25	23	5.77	15	38
72	Utran Extension - 375	34	34	62	4.96	17	79
73	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
74	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
75	GIPCL II (160) - 165	35	35	27	5.49	19	46
76	GSEG - 156	13	13	24	5.21	7	31
77	GIPCL - I (145) - 42	9	9	12	5.49	5	17
78	NTPC - KAWAS - 187	19	19	18	5.59	10	28
79	NTPC - JHANOR - 237	24	**24**	31	5.59	13	44
	Total	**110,242**	**82,050**	**11,646**		**15,228**	**26,874**

Table 6.41: Power purchase cost projected by PGVCL for FY 2015-16

Sl. No.	Particulars	FY 2015-16					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs .crore)	Total Cost (Rs. crore)
	GSECL plants						
1	Ukai TPS	5,082	3388	247	1.71	579	826
2	Ukai Hydro	345	345	24	0.00	0	24
3	Gandhinagar I to IV	4,111	1972	266	2.38	468	735
4	Gandhinagar V	1,339	837	97	2.13	178	276
5	Wanakbori I to VI	8,035	5022	366	2.11	1 ,059	1,424
6	Wanakbori VII	1,339	837	95	2.02	169	264
7	Wanakbori Expansion	5,102	3189	673	1.60	510	1,183
8	Sikka TPS	1,329	-	115	2.77	-	115
9	Kutch Lignite I to III	1,243	829	222	1.18	98	319
10	Kutch Lignite IV	434	289	129	1.11	32	161
11	Dhuvaran oi l	-	-	-	-	-	-
12	Kadana Hydro	126	126	61	0.00	0	61
13	Utran Gas Based	505	315	29	2.37	75	103
14	Dhuvaran Gas Based - Stage-I	616	-	48	2.41	-	48
15	Dhuvaran Gas Based - Stage-II	642	-	57	2.39	-	57
16	Utran Extension	2,005	1253	229	2.07	260	488
17	Ukai Expansion 6	3,206	2004	401	1.54	309	709
18	Sikka 3 & 4	3,206	2004	401	1.99	398	799
19	Dhuvaran CCPP Ext - 3	2,447	-	329	3.39	-	329

Sl. No.	Particulars	FY 2015-16					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs .crore)	Total Cost (Rs. crore)
	IPPs						
20	ESSAR	1,439	-	202	2.95	-	202
21	GPEC	2,328	-	307	2.40	-	307
22	GIPCL II (160)	559	349	27	1.95	68	95
23	GIPCL-SLPP	1,478	986	158	1.14	112	271
24	GSEG	858	536	101	1.77	95	196
25	GIPCL - I (145)	140	87	11	2.15	19	30
26	GIPCL Addition	3,154	1971	315	1.14	225	540
27	GMDC - Akrimota	1,478	986	203	0.74	73	275
28	GSEG Expansion	149	149	238	5.00	74	312
29	GIPCL, Expansion	1,577	986	158	1.14	112	270
30	GSPC-Pipavav	296	296	473	5.00	148	621
31	BECL	3,119	1949	390	1.20	234	624
32	NPC - Tarapur- 1&2	1,009	1009	-	0.95	96	96
33	NPC - Kakrapar	767	767	-	2.19	168	168
34	NPC kakrapar addition	247	247	-	2.89	71	71
	Central sector						
35	NPC - Tarapur- 3&4	1,728	1728	-	2.32	402	402
36	NTPC - Lara	81	81	14	1.31	11	25
37	NTPC - KORBA	2,323	1452	74	0.76	110	183
38	NTPC - VINDHYACHAL - I	1,467	917	58	1.27	116	174
39	NTPC - VINDHYACHAL - II	1,549	968	98	1.23	119	218
40	NTPC - VINDHYACHAL - III	1,724	1078	165	1.21	131	296
41	NTPC - KAWAS	971	607	58	2.32	141	198
42	NTPC - JHANOR	1,231	769	101	2.14	164	266
43	NTPC-Sipat Stage-I	3,500	2188	421	0.88	192	613
44	SSNNL - Hydro	283	283	-	2.05	58	58
45	NTPC - Kahalgaon (New)	914	571	172	1.78	102	274
46	NTPC - Sipat Stage-II	1,789	1118	192	0.88	98	291
47	NTPC - Mauda STPS-I	1,573	983	242	0.89	87	330
48	NTPC-Barh STPS-I	1,704	1065	169	0.81	86	255
49	NTPC - Vindhyachal STPS-IV	1,573	983	287	0.87	86	373
50	NTPC-Barh STPS-II	1,140	713	102	0.89	63	165
51	NTPC - Mauda STPS-II	142	142	40	1.05	15	55
52	NTPC - KORBA II	629	393	102	0.72	28	131
53	Mundra UMPP	12,649	7906	1,448	0.91	715	2,164
54	Ti laiya UMPP	2,102	1314	143	0.95	125	268
55	**Captive Power Plant (MU)**	56	56	-	3.64	20	20
	Renewables						
56	Wind Farms (1.75)	44	44	-	1.75	8	8
57	Wind Farms (3.37)	1,575	1575	-	3.37	531	531
58	Wind Farms (3.56)	462	462	-	3.56	164	164

Sl. No.	Particulars	FY 2015-16					
		Available MU	Dispatch MU	Fixed Cost (Rs. crore)	Variable Cost (Rs /Unit)	Variable Cost (Rs .crore)	Total Cost (Rs. crore)
59	Solar Photovoltaic	1,653	1653	-	15.00	2 ,480	2,480
60	Solar Thermal	44	44	-	11.00	48	48
61	Biomass	210	210	-	4.40	93	93
62	Hydro	53	53	-	3.52	19	19
	Competitive Bidding						
63	APPL	14,016	8760	1,634	1.43	1 ,256	2,890
64	Aryan	1,402	876	226	0.55	48	275
65	Essar - 1000 MW	7,008	4380	820	1.27	556	1,376
66	Wardha Power - KSK Mahanadi Power Co	6,498	4424	939	0.62	274	1,213
67	Essar - 800 MW	5,147	3504	732	1.38	484	1,216
68	Shapoorji Pallonji	5,147	3504	732	1.38	484	1,216
	RLNG						
69	ESSAR - 300	25	25	49	5.34	13	62
70	GPEC - 655	112	112	208	5.21	58	266
71	Utran Gas Based-135	25	25	23	5.77	15	38
72	Utran Extension-375	34	34	62	4.96	17	79
73	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
74	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
75	GIPCL II (160) - 165	35	35	27	5.49	19	46
76	GSEG - 156	13	13	24	5.21	7	31
77	GIPCL - I (145) - 42	9	9	12	5.49	5	17
78	NTPC-KAWAS-187	19	19	18	5.59	10	28
79	NTPC-JHANOR- 237	24	24	31	5.59	13	44
	Total	**142,405**	**87838**	**15,815**		**15,111**	**30,926**

6.8.4 Transmission and other costs

Petitioner's submission

It is submitted by PGVCL that the total power purchase cost for the company for the control period FY 2011-12 to FY 2015-16 consists of: transmission charges, SLDC fees and charges and GUVNL costs.

Transmission charges

Transmission charges to GETCO are calculated as per the approved charges for GETCO in the MYT Order for the control period FY 2011-12 to FY 2015-16. PGCIL charges are worked out, based on actual of FY 2009-10, with escalation of 5% every year.

Based on the transmission charges for PGCIL and GETCO, the total transmission charges included in the calculation of bulk supply tariff of all DISCOMs is given below:

Table 6.42: Transmission charges projected by PGVCL for the control period FY 2011-12 to FY 2015-16

Particulars	FY 2009-10 (Approved)	FY 2009-10 (Actual)	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Escalation for PGCIL charges (%)	0	0	5	5	5	5	5	5
PGCIL charges (Rs.crore/annum)	-	254	267	280	294	309	324	340
GETCO charges (Rs./MW/day)	-	-	2829	2775	2954	3245	3029	2727
GETCO charges (Rs./crore/MW/ annum)	-	-	0.10	0.10	0.11	0.12	0.11	0.10
SLDC fees (Rs./MW/half year)	-	-	375	321	371	407	363	313
SLDC charges (Rs/MW/month)	-	-	519	397	365	348	295	251

6.8.5 GUVNL cost

The PGVCL has submitted that GUVNL is entrusted with the function of supplying power to DISCOMs and the overall coordination between the subsidiary companies. It also undertakes the function of raising and managing overall loan portfolio of GUVNL and its subsidiaries.

GUVNL is charging Rs.0.04 for every transaction of the unit.

6.8.6 SLDC Fees and charges

it is submitted by PGVCL that SLDC fees and charges have been taken as approved by the Commission in the SLDC MYT Order dated 31st March, 2011.

6.8.7 Trading

The PGVCL has stated that GUVNL has projected trading of surplus power based on its capacity to sell. GUVNL has considered 6000 MU for FY 20911-12, 7000 MU for FY 2012-13 each year increasing the trading units by 1000 MU, thus reaching a level of 10,000 MU for the FY 2015-16. Trading cost is calculated, based on variable and fixed costs of the respective power plants.

The trading MU, envisaged from FY 2011-12 to FY 2015-16, are given below:

Table 6.43: Trading of energy envisaged during the control period FY 2011-12 to FY 2015-16 as projected by PGVCL

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
Trading units (MU)	6000	7000	8000	9000	10000

6.8.8 Total power purchase cost

The PGVCL has furnished the total power purchase cost, consisting of the cost of power purchase from various generating stations, transmission charges of PGCIL and GETCO, SLDC charges, GUVNL costs and trading units. The total fixed costs, due to the capacity contracted, are passed on to the DISCOMs. For trading on the basis of the number of units dispatched, the cost is allocated, as shown in the Table below:

Table 6.44: Fixed cost for DISCOMs and trading of energy from FY 2011-12 to FY 2015-16 as projected by PGVCL

(Rs. crore)

Year	Fixed Cost	GETCO cost	PGCIL charges	SLDC charges	Total Fixed cost	DISCOM Fixed cost	Trading Fixed cost
FY 2011-12	6652	1185	280	8	8125	8125	798
FY 2012-13	9229	1594	294	9	11126	11126	1203
FY 2013-14	10268	1887	309	9	12473	12473	1451
FY 2014-15	11646	1923	324	9	13902	13902	1713
FY 2015-16	15815	2192	340	9	18356	18356	2358

The total variable cost units of the energy cost due to generating energy to supply power to DISCOMs, as well as for trading purpose, include additional 4 paise/unit payable to GUVNL for the supply of such power. The basic purpose is to have an average variable cost to DISCOMs, as well as trading of power. The total variable cost is given in the Table below:

Table 6.45: Variable cost for DISCOMs and trading of energy for FY 2011-12 to FY 2015-16 as projected by PGVCL

Year	Variable cost (Rs. crore)	GUVNL cost (Rs. crore)	Total variable cost (Rs. crore)	Total MU dispat-ched	Variable cost (Rs./unit)	DISCOM		Trading	
						MU	Variable cost (Rs. crore)	MU\	Variable cost (Rs. crore)
FY 2011-12	12195	268	12463	67077	1.86	61077	11348	6000	1115
FY 2012-13	12781	287	13068	71759	1.82	64759	11793	7000	1275
FY 2013-14	14466	307	14773	76743	1.92	68743	13233	8000	1540
FY 2014-15	15228	328	15556	82050	1.90	73050	13850	9000	1706
FY 2015-16	15111	351	15463	87838	1.76	77838	13702	10000	1760

6.8.9 Net power purchase cost

It is submitted by PGVCL that trading revenue for GUVNL is calculated, based on per unit total cost of power plus Rs.1.00 per unit, which will also include the profit margin and GUVNL's trading margin.

Hence, the revenue earned from sale of power to trade is subtracted from the total power purchase cost for DISCOMs to obtain the net power purchase cost. The net power purchase cost is shown below:

Table 6.46: GUVNL net power purchase cost for the control period FY 2011-12 to FY 2015-16 as projected by PGVCL

(Rs. crore)

Year	DISCOM fixed cost	DISCOM variable cost	Total power purchase cost	Trading fixed cost	Trading variable cost	Profit & trading margin	Total trading revenue	Net cost
FY 2011-12	8125	11348	19473	798	1115	600	2513	18075
FY 2012-13	11126	11793	22919	1203	1275	700	3177	21016
FY 2013-14	12473	13233	25705	1451	1540	800	3791	23454
FY 2014-15	13092	13850	27752	1713	1706	900	4319	25139
FY 2015-16	18356	13702	32059	2358	1760	1000	5119	28700

Power purchase cost – Commission's Analysis

6.8.10 Bulk supply arrangement

GUVNL is a holding company of the restructured successor companies and is also entrusted with the purchase and sale (trading) function of electricity. GUVNL purchases power from various sources and supplies this to the four distribution companies and also in bulk to the distribution licensees in Gujarat. The GUVNL has entered into contracts to purchase the entire power requirement from GSECL, central generating companies, IPPs, traders and others to meet the demand of the DISCOMs. Thus, it performs the activity of bulk supplier of power to all the four distribution companies at Bulk Supply Tariff. In accordance with this arrangement, the distribution licensees have entered into bulk supply arrangement / agreement with GUVNL to meet their supply obligations.

When the erstwhile Gujarat Electricity Board (GEB) was restructured on a functional basis, the four distribution companies were incorporated on the basis of Zonal configuration existing in the Electricity Board.

Each of the zones, now the distribution companies, have different consumer profile and consumption profile and hence the revenue earning capabilities of each DISCOM differs as well as the Annual Revenue Requirement.

The State Government envisaged a uniform structure of retail supply tariff in the four DISCOMs so that consumers in similar categories in the State could have similar tariff as in the erstwhile GEB and there may not be any discrimination among the consumers on account of the restructuring.

Since the revenue earning capabilities and the ARR of the four DISCOMs are different, it is necessary to build a mechanism to bring them enable uniform retail tariffs.

Since the power purchase cost contributes 70 to 80% of the total cost incurred by DISCOMs, this factor plays a major role in achieving the level playing field among the DISCOMs for maintaining uniform tariffs in the DISCOMs. In this context the Tariff Polocy has provided as under:

Para 8.4.2 of the Tariff Policy states –

> *The National Electricity Policy states that existing PPAs with the generating companies would need to be suitably assigned to the successor distribution companies. The State Governments may make such assignments taking care of different load profiles of the distribution companies so that retail tariffs are uniform in the State for different categories of consumers. Thereafter the retail tariffs would reflect the relative efficiency of distribution companies in procuring power at competitive costs, controlling theft and reducing other distribution losses.*

The Government had earlier assigned the PPAs to different DISCOMs based on the load profile of each DISCOM, but the assignment of PPAs has become a dynamic situation in view of additional capacity that is being added every year, the generation cost of such additional capacity being different. In this situation, uniform tariff by the assignment of PPAs has become difficult.

Even though the distribution companies are improving their performance by reducing the distribution losses etc., the consumer profile and consumption profile is a historical legacy. It would take considerable time for the distribution companies to develop industries and commercial activities for a more favourable consumer mix. Until such time the uniform tariffs have to be maintained in all DISCOMs. In order to maintain uniform tariffs in all DISCOMs the equitable allocation of PPA is suggested in the Tariff Policy. As stated earlier the allocation has its own limitation. The other alternative of Bulk Supply arrangement is considered more appropriate. Hence the differential Bulk Supply Tariff proposed by the DISCOM / GUVNL, which provides for uniform tariff is approved by the Commission.

6.8.11 Power purchase sources and merit order despatch

Power purchase sources

As mentioned in paragraph 6.8.1, GUVNL has entered into contract for the existing capacity with GSECL, central generating companies, IPPs, renewable energy sources and RLNG gas based plants which were commissioned before 31st March, 2010. The details of the existing plants, etc., are given in Table 6.34.

GUVNL has also entered into contract for new capacity that is likely to be commissioned during the control period.

The details of the new plant likely to be commissioned during the control period are given in Table 6.35.

The quantum contracted from the new capacity source-wise is given in the table 6.47 below. The total capacity contracted from each of the sources is summarised in the Table below:

Table 6.47: New capacity contracted source-wise by GUVNL for the control period FY 2011-12 to FY 2015-16

Sl. No.	Particulars	Rated capacity allocated to GUVNL (MW) as on 31st March 2011	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	GSECL	4822	4822	5822	6002	6182	6982
2	IPPs	1612	2313	2663	3163	3663	3663

Sl. No.	Particulars	Rated capacity allocated to GUVNL (MW) as on 31st March 2011	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
3	Central Generating stations	2900	3741	4188	4870	6160	7136
4	Renewable sources	1072	1469	2041	2041	2041	2041
5	Competitive bidding	1500	2700	3200	3200	3200	5810
6	CPP	8	8	8	8	8	8
	Total	**11914**	**15053**	**17922**	**19284**	**21254**	**25640**

The details of capacity contracted by GUVNL from the existing plant and the additional plants envisaged during the control period along with the operational, fixed and variable cost are given in Tables 6.34 and 6.35.

6.8.12 Purchase in merit order

As discussed earlier in paragraph 6.3.2, GUVNL, in order to optimise the power purchase costs, has worked out a comprehensive merit order dispatch (MOD), as shown below:

- The despatch from individual generating station is worked out, based on merit order of variable cost of each generating unit.
- NPC power plants, renewable sources, captive power plants and hydro power plants have been considered as must run power plants. Hence, they have been excluded from merit order calculations.
- R-LNG spot gas based power plants PLF is considered at 30% for FY 2011-12 and @ 5% for the FY 2012-13 onwards due to high variable costs. The power purchase from these plants has been capped by GUVNL in order to minimise the impact of higher variable cost of generation from these plant.
- During merit order dispatch, at least 50% availability of each plant has been considered to take care of the peak loads and peak seasons.
- Fixed cost and variable cost for GSECL plants have been taken as approved by the Commission for the control period in the Order dated 31st March, 2011.

- For IPPs and central sector stations, fixed cost and variable costs are taken as per actuals of FY 2009-10.

The quantum of power and the cost as provided by PGVCL/GUVNL are considered on due examination as given in Tables 6.48 to 6.52, and approved by the Commission.

6.8.13 Power purchase during the control period FY 2011-12 to FY 2015-16

The power purchase for the control period FY 2011-12 to FY 2015-16 is based on the energy requirement of PGVCL / four DISCOMs approved by the Commission. As stated in the preceding paragraphs, the fixed and variable costs of GSECL stations are as approved by the Commission in the Tariff Order dated 31st March, 2011. For purchases from central generating stations, IPPs and others, the fixed and variable costs are taken based on actuals for FY 2009-10. The power purchase costs for each year of the control period are given in Tables 6.38 to 6.42. These include the energy available from each station, as estimated by the Commission, and energy dispatchable, based on merit order as given in the above Tables.

The source-wise power purchase cost by GUVNL for the control period FY 2011-12 to FY 2015-16 as approved by the Commission are summarised and given in the Tables below:

Table 6.48: Power purchase cost approved for FY 2011-12

SL. No	Particulars	FY 2011-12					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	GSECL Plants						
1	Ukai TPS	5082	5082	246.64	1.710	869	1115.64
2	Ukai Hydro	345	345	24.42	0 .000	0	24.42
3	Gandhinagar I to IV	4111	2602	266.37	2 .375	618	884.37
4	Gandhinagar V	1339	837	97.24	2 .130	178	275.24
5	Wanakbori I to VI	8035	5022	365.77	2 .108	1059	1424.77
6	Wanakbori VII	1339	1339	94.58	2 .022	271	365.58
7	Sikka TPS	1272	936	121.68	2 .769	259	380.68
8	Kutch Lignite I to I II	1094	1094	221.5	1 .181	129	350.5
9	Kutch Lignite IV	434	434	129.34	1 .109	48	177.34
10	Dhuvaran oi l	-	-	-	-	-	
11	Kadana Hydro	126	126	61.45	0 .00	0	61.45

SL. No	Particulars	FY 2011-12					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
12	Utran Gas Based	505	315	28.82	2 .367	75	103.82
13	Dhuvaran Gas Based - Stage-I	616	385	47.77	2 .411	93	140.77
14	Dhuvaran Gas Based - Stage-II	642	401	56.33	2 .388	96	152.33
15	Utran Extension	2005	1878	228.9	2 .071	389	617.9
	Sub Total	26945	20796	1990.81		4084	6074.81
	IPPs						
16	ESSAR	1439	1028	202	2 .95	303	505
17	GPEC	2328	1663	307	2 .40	399	707
18	GIPCL II (160)	559	559	27	1 .95	109	135
19	GIPCL-SLPP	1478	1478	158	1 .14	169	327
20	GSEG	858	858	101	1 .77	152	253
21	GIPCL - I (145)	140	87	11	2 .15	19	30
22	GMDC - Akrimota	1478	1478	203	0 .74	109	312
23	GSEG Expansion	201	201	20	5 .00	101	121
24	GIPCL Expansion	1577	1577	158	1 .14	180	338
25	GSPC-Pipavav	200	200	20	5 .00	100	120
	Sub Total	10258	9129	1207		1641	2848
	Central Sector						
26	NPC - Tarapur- 1&2	1009	1009	-	0 .95	96	96
27	NPC - Kakrapar	767	767	-	2 .19	168	168
28	NPC - Tarapur- 3&4	1728	1728	-	2 .32	402	402
29	NTPC - KORBA	2323	2323	74	0 .76	175	249
30	NTPC - VINDHYACHAL - I	1467	1467	58	1 .27	186	243
31	NTPC - VINDHYACHAL - II	1549	1549	98	1 .23	191	289
32	NTPC - VINDHYACHAL - III	1724	1724	165	1 .21	209	375
33	NTPC - KAWAS	971	607	58	2 .32	141	198
34	NTPC - JHANOR	1231	769	101	2 .14	164	266
35	NTPC - Sipat Stage - I	2066	2066	234	0 .88	181	415
36	SSNNL - Hydro	283	283	-	2 .05	58	58
37	NTPC - Kahalgaon (New)	914	914	172	1 .78	162	335
38	NTPC - Sipat Stage-II	1789	1789	192	0 .88	157	350
39	NTPC - Mauda STPS-I	71	71	10	0 .89	6	17
40	NTPC - KORBA II	629	629	102	0 .72	45	148
41	Mundra UMPP	1472	1472	169	0 .91	133	302
	Sub Total	19993	19167	1433		2474	3911
	Others						
42	Captive Power Plant (MU)	56	56	-	3 .64	20	20
	Sub Total	56	56	-		20	20
	Renewables						
43	Wind Farms (1.75)	44	44	-	1 .75	8	8
44	Wind Farms (3.37)	1575	1575	-	3 .37	531	531
45	Wind Farms (3.56)	462	462	-	3 .56	164	164
46	Solar Photovoltic	162	162	-	15	243	243
47	Solar Thermal	11	11	-	11	12	12

SL. No	Particulars	FY 2011-12					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
48	Biomass	210	210	-	4 .40	93	93
49	Hydro	53	53	-	3 .52	19	19
	Sub Total	2517	2517			1070	1070
	Competitive Bidding						
50	APPL	12264	12264	1430	1 .43	1759	3188
51	Aryan	119	119	19	0 .55	7	26
52	Essar - 1000 MW	1168	1168	137	1 .27	148	285
53	ESSAR - 300	148	148	49	5 .34	79	127
	Sub Total	13699	13699	1635		1993	3626
	RLNG						
54	GPEC - 655	674	674	208	5 .21	351	559
55	Utran Gas Based - 135	151	151	23	5 .77	87	110
56	Utran Extension - 375	204	204	62	4 .96	101	163
57	Dhuvran Gas Based - Stage 1 - 107	41	41	8	5 .26	21	30
58	Dhuvran Gas Based - Stage 2 - 112	46	46	11	5 .26	24	35
59	GIPCL II (160) - 165	212	212	27	5 .49	116	143
60	GSEG - 156	77	77	24	5 .21	40	64
61	GIPCL - I (145) - 42	54	54	12	5 .49	30	41
62	NTPC - KAWAS - 187	112	112	18	5 .59	63	81
63	NTPC - JHANOR - 237	142	142	31	5 .59	80	111
	Sub Total	1713	1713	424		913	1337
	Total	**75181**	**67077**	**6689.81**		**12195**	**18886.81**

Table 6.49: Power purchase cost approved for FY 2012-13

Sl. No	Particulars	FY 2012-13					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	GSECL Plants						
1	Ukai TPS	5082	3388	246.64	1.710	579	825.64
2	Ukai Hydro	345	345	24.42	0 .000	0	24.42
3	Gandhinagar I to IV	4111	2602	266.37	2 .375	618	884.37
4	Gandhinagar V	1339	837	97.24	2 .130	178	275.24
5	Wanakbori I to VI	8035	5022	365.77	2 .108	1059	1424.77
6	Wanakbori VII	1339	837	94.58	2 .022	169	263.58
7	Sikka TPS	1272	936	121.68	2 .769	259	380.68
8	Kutch Lignite I to III	1243	1243	221.5	1 .181	147	368.5
9	Kutch Lignite IV	434	434	129.34	1 .109	48	177.34
10	Dhuvaran oi l	-	-	-	-	-	
11	Kadana Hydro	126	126	61.45	0 .00	0	61.45
12	Utran Gas Based	505	315	28.82	2 .367	75	103.82
13	Dhuvaran Gas Based -	616	385	47.77	2 .411	93	140.77

Sl. No	Particulars	FY 2012-13					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	Stage-I						
14	Dhuvaran Gas Based - Stage-II	642	401	56.33	2 .388	96	152.33
15	Utran Extension	2005	1253	228.9	2 .071	260	488.9
16	Ukai Expansion 6	3206	2004	401	1.54	309	710
17	Sikka 3 & 4	272	272	34	1.99	54	88
	Sub Total	30572	20400	2425.81		3944	6369.81
	IPPs						
18	ESSAR	1439	1028	202	2.95	303	505
19	GPEC	2328	1663	307	2.4	399	707
20	GIPCL II (160)	559	349	27	1.95	68	95
21	GIPCL-SLPP	1478	1478	158	1.14	169	327
22	GSEG	858	536	101	1.77	95	196
23	GIPCL - I (145)	140	87	11	2.15	19	30
24	GMDC - Akrimota	1478	1478	203	0.74	109	312
25	GSEG Expansion	149	149	238	5	74	312
26	GIPCL Expansion	1577	1577	158	1.14	180	338
27	GSPC-Pipavav	296	296	374	5	148	522
	Sub Total	10302	8641	1779		1564	3344
	Central Sector						
28	NPC - Tarapur- 1&2	1009	1009	-	0.95	96	96
29	NPC - Kakrapar	767	767	-	2.19	168	168
30	NPC - Tarapur- 3&4	1728	1728	-	2.32	402	402
31	NTPC - KORBA	2323	2323	74	0.76	175	249
32	NTPC - VINDHYACHAL - I	1467	1467	58	1.27	186	243
33	NTPC - VINDHYACHAL - II	1549	1549	98	1.23	191	289
34	NTPC - VINDHYACHAL - III	1724	1724	165	1.21	209	375
35	NTPC - KAWAS	971	607	58	2.32	141	198
36	NTPC - JHANOR	1231	769	101	2.14	164	266
37	NTPC - Sipat Stage - I	3500	3500	421	0.88	307	728
38	SSNNL - Hydro	283	283	-	2.05	58	58
39	NTPC - Kahalgaon (New)	914	571	172	1.78	102	274
40	NTPC - Sipat Stage-II	1789	1789	192	0.88	157	350
41	NTPC - Mauda STPS-I	1321	1321	191	0.89	118	309
42	NTPC - Vindhyachal STPS-IV	142	142	24	0.87	12	37
43	NTPC - Barh STPS-II	51	51	4	0.89	5	9
44	NTPC - KORBA II	629	629	102	0.72	45	148
45	Mundra UMPP	2530	2530	290	0.91	229	519
	Sub Total	23928	22759	1950		2765	4718
	Others						
46	Captive Power Plant (MU)	56	56	-	3.64	20	20
	Sub Total	56	56			20	20
	Renewables						
47	Wind Farms (1.75)	44	44	-	1.75	8	8
48	Wind Farms (3.37)	1575	1575	-	3.37	531	531

Sl. No	Particulars	FY 2012-13					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
49	Wind Farms (3.56)	462	462	-	3.56	164	164
50	Solar Photovoltic	898	898	-	15	1347	1347
51	Solar Thermal	44	44	-	11	48	48
52	Biomass	210	210	-	4.4	93	93
53	Hydro	53	53	-	3.52	19	19
	Sub Total	3286	3286			2210	2210
	Competitive Bidding						
54	APPL	14016	8760	1634	1.43	1256	2890
55	Aryan	1402	1402	226	0.55	77	303
56	Essar - 1000 MW	6422	6145	751	1.27	780	1532
57	ESSAR - 300	25	25	49	5.34	13	62
	Sub Total	21865	16332	2660		2126	4787
	RLNG						
58	GPEC - 655	112	112	208	5.21	58	266
59	Utran Gas Based - 135	25	25	23	5.77	15	38
60	Utran Extension - 375	34	34	62	4.96	17	79
61	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
62	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
63	GIPCL II (160) - 165	35	35	27	5.49	19	46
64	GSEG - 156	13	13	24	5.21	7	31
65	GIPCL - I (145) - 42	9	9	12	5.49	5	17
66	NTPC - KAWAS - 187	19	19	18	5.59	10	28
67	NTPC - JHANOR - 237	24	24	31	5.59	13	44
	Sub Total	286	286	424		152	576
	Total	**90295**	**71760**	**9238.81**		**12781**	**22024.81**

Table 6.50: Power purchase cost approved for FY 2013-14

Sl. No	Particulars	FY 2013-14					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	GSECL Plants						
1	Ukai TPS	5082	3388	246.64	1.710	579	825.64
2	Ukai Hydro	345	345	24.42	0 .000	0	24.42
3	Gandhinagar I to IV	4111	2602	266.37	2 .375	618	884.37
4	Gandhinagar V	1339	837	97.24	2 .130	178	275.24
5	Wanakbori I to VI	8035	5022	365.77	2 .108	1059	1424.77
6	Wanakbori VII	1339	837	94.58	2 .022	169	263.58
7	Sikka TPS	1329	936	121.68	2 .769	259	380.68
8	Kutch Lignite I to III	1243	1243	221.5	1 .181	147	368.5
9	Kutch Lignite IV	434	434	129.34	1 .109	48	177.34
10	Dhuvaran oil	-	-	-	-	-	

Sl. No	Particulars	FY 2013-14					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
11	Kadana Hydro	126	126	61.45	0 .00	0	61.45
12	Utran Gas Based	505	315	28.82	2 .367	75	103.82
13	Dhuvaran Gas Based - Stage-I	616	385	47.77	2 .411	93	140.77
14	Dhuvaran Gas Based - Stage-II	618	401	56.33	2 .388	96	152.33
15	Utran Extension	2005	1253	228.9	2 .071	260	488.9
16	Ukai Expansion 6	3206	2004	401	1.54	309	710
17	Sikka 3 & 4	3206	2004	401	1.99	398	799
18	Dhuvaran CCPP Ext - 3	104	104	14	3.39	35	49
	Sub Total	33643	22236	2806.81		4323	7129.81
	IPPs						
19	ESSAR	1439	1028	202	2.95	303	505
20	GPEC	2328	1663	307	2.4	399	707
21	GIPCL II (160)	559	349	27	1.95	68	95
22	GIPCL-SLPP	1478	1478	158	1.14	169	327
23	GSEG	858	536	101	1.77	95	196
24	GIPCL - I (145)	140	87	11	2.15	19	30
25	GMDC - Akrimota	1478	1478	203	0.74	109	312
26	GSEG Expansion	149	149	238	5	74	312
27	GIPCL Expansion	1577	1577	158	1.14	180	338
28	GSPC-Pipavav	296	296	473	5	148	621
29	BECL	265	265	33	1.2	32	65
	Sub Total	10567	8906	1911		1596	3508
	Central Sector						
30	NPC - Tarapur- 1&2	1009	1009	-	0.95	96	96
31	NPC - Kakrapar	767	767	-	2.19	168	168
32	NPC - Tarapur- 3&4	1728	1728	-	2.32	402	402
33	NTPC - KORBA	2323	2323	74	0.76	175	249
34	NTPC - VINDHYACHAL - I	1467	1467	58	1.27	186	243
35	NTPC - VINDHYACHAL - II	1549	1549	98	1.23	191	289
36	NTPC - VINDHYACHAL - III	1724	1724	165	1.21	209	375
37	NTPC - KAWAS	971	607	58	2.32	141	198
38	NTPC - JHANOR	1231	769	101	2.14	164	266
39	NTPC - Sipat Stage - I	3500	3500	421	0.88	307	728
40	SSNNL - Hydro	283	283	-	2.05	58	58
41	NTPC - Kahalgaon (New)	914	571	172	1.78	102	274
42	NTPC - Sipat Stage-II	1789	1789	192	0.88	157	350
43	NTPC - Mauda STPS-I	1573	1573	242	0.89	140	382
44	NTPC - Barh STPS-I	403	403	38	0.81	33	70
45	NTPC - Vindhyachal STPS-IV	1573	1573	287	0.87	137	424
46	NTPC - Barh STPS-II	957	957	80	0.89	85	166
47	NTPC - KORBA II	629	629	102	0.72	45	148
48	Mundra UMPP	2745	2745	314	0.91	248	563
49	Ti laiya UMPP	36	36	2	0.95	3	6

Sl. No	Particulars	FY 2013-14					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	Sub Total	27171	26002	2404		3047	5455
	Others						
50	Captive Power Plant (MU)	56	56	-	3.64	20	20
	Sub Total	56	56			20	20
	Renewables						
51	Wind Farms (1.75)	44	44	-	1.75	8	8
52	Wind Farms (3.37)	1575	1575	-	3.37	531	531
53	Wind Farms (3.56)	462	462	-	3.56	164	164
54	Solar Photovoltic	1653	1653	-	15	2480	2480
55	Solar Thermal	44	44	-	11	48	48
56	Biomass	210	210	-	4.4	93	93
57	Hydro	53	53	-	3.52	19	19
	Sub Total	4041	4041			3343	3343
	Competitive Bidding						
58	APPL	14016	8760	1634	1.43	1256	2890
59	Aryan	1402	1402	226	0.55	77	303
60	Essar - 1000 MW	7008	5031	820	1.27	639	1459
61	ESSAR - 300	25	25	49	5.34	13	62
	Sub Total	22451	15218	2729		1985	4714
	RLNG						
62	GPEC - 655	112	112	208	5.21	58	266
63	Utran Gas Based - 135	25	25	23	5.77	15	38
64	Utran Extension - 375	34	34	62	4.96	17	79
65	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
66	Dhuvran Gas Based - Stage 2 - 112	8	8	10	5.26	4	14
67	GIPCL II (160) - 165	35	35	27	5.49	19	46
68	GSEG - 156	13	13	24	5.21	7	31
69	GIPCL - I (145) - 42	9	9	12	5.49	5	17
70	NTPC - KAWAS - 187	19	19	18	5.59	10	28
71	NTPC - JHANOR - 237	24	24	31	5.59	13	44
	Sub Total	286	286	423		152	575
	Total	**98215**	**76745**	**10273.81**		**14466**	**24744.81**

Table 6.51: Power purchase cost approved for FY 2014-15

Sl. No.	Particulars	FY 2014-15					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	GSECL Plants						
1	Ukai TPS	5082	3388	246.64	1.710	579	825.64
2	Ukai Hydro	345	345	24.42	0 .000	0	24.42
3	Gandhinagar I to IV	4111	2602	266.37	2 .375	618	884.37

Sl. No.	Particulars	FY 2014-15					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
4	Gandhinagar V	1339	837	97.24	2 .130	178	275.24
5	Wanakbori I to VI	8035	5022	365.77	2 .108	1059	1424.77
6	Wanakbori VII	1339	837	94.58	2 .022	169	263.58
7	Sikka TPS	1329	936	121.68	2 .769	259	380.68
8	Kutch Lignite I to III	1243	829	221.5	1 .181	98	319.5
9	Kutch Lignite IV	434	289	129.34	1 .109	32	161.34
10	Dhuvaran oil I	-	-	-	-	-	
11	Kadana Hydro	126	126	61.45	0 .00	0	61.45
12	Utran Gas Based	505	315	28.82	2 .367	75	103.82
13	Dhuvaran Gas Based - Stage-I	616	385	47.77	2 .411	93	140.77
14	Dhuvaran Gas Based - Stage-II	642	401	56.33	2 .388	96	152.33
15	Utran Extension	2005	1253	228.9	2 .071	260	488.9
16	Ukai Expansion 6	3206	2004	401	1.54	309	710
17	Sikka 3 & 4	3206	2004	401	1.99	398	799
18	Dhuvaran CCPP Ext - 3	1934	1529	260	3.39	518	778
	Sub Total	35497	23102	3052.81		4741	7793.81
	IPPs						
19	ESSAR	1439	1028	202	2.95	303	505
20	GPEC	2328	1663	307	2.4	399	707
21	GIPCL II (160)	559	349	27	1.95	68	95
22	GIPCL-SLPP	1478	986	158	1.14	112	271
23	GSEG	858	536	101	1.77	95	196
24	GIPCL - I (145)	140	87	11	2.15	19	30
25	GIPCL Addition	268	268	31	1.14	31	61
26	GMDC - Akrimota	1478	1478	203	0.74	109	312
27	GSEG Expansion	149	149	238	5	74	312
28	GIPCL Expansion	1577	986	158	1.14	112	270
29	GSPC-Pipavav	296	296	473	5	148	621
30	BECL	3119	1949	390	1.2	234	624
	Sub Total	13689	9775	2299		1704	4004
	Central Sector						
31	NPC - Tarapur- 1&2	1009	1009	-	0.95	96	96
32	NPC - Kakrapar	767	767	-	2.19	168	168
33	NPC - Tarapur- 3&4	1728	1728	-	2.32	402	402
34	NTPC - KORBA	2323	2323	74	0.76	175	249
35	NTPC - VINDHYACHAL - I	1467	917	58	1.27	116	174
36	NTPC - VINDHYACHAL - II	1549	968	98	1.23	119	218
37	NTPC - VINDHYACHAL - III	1724	1078	165	1.21	131	296
38	NTPC - KAWAS	971	607	58	2.32	141	198
39	NTPC - JHANOR	1231	769	101	2.14	164	266
40	NTPC - Sipat Stage - I	3500	3500	421	0.88	307	728
41	SSNNL - Hydro	283	283	-	2.05	58	58
42	NTPC - Kahalgaon (New)	914	571	172	1.78	102	274
43	NTPC - Sipat Stage-II	1789	1754	192	0.88	154	347

Sl. No.	Particulars	FY 2014-15					
		Available (MU)	Dispatch (MU)	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
44	NTPC - Mauda STPS-I	1573	983	242	0.89	87	330
45	NTPC - Barh STPS-I	1559	1559	146	0.81	126	272
46	NTPC - Vindhyachal STPS-IV	1573	1573	287	0.87	137	424
47	NTPC - Barh STPS-II	1140	713	102	0.89	63	165
48	NTPC - KORBA II	629	629	102	0.72	45	148
49	Mundra UMPP	7586	7586	869	0.91	687	1555
50	Ti laiya UMPP	909	909	62	0.95	86	148
	Sub Total	34224	30226	3149	26.02	3364	6516
	Others						
51	Captive Power Plant (MU)	56	56	-	3.64	20	20
	Sub Total	56	56	-	3.64	20	20
	Renewables						
52	Wind Farms (1.75)	44	44	-	1.75	8	8
53	Wind Farms (3.37)	1575	1575	-	3.37	531	531
54	Wind Farms (3.56)	462	462	-	3.56	164	164
55	Solar Photovoltic	1653	1653	-	15	2480	2480
56	Solar Thermal	44	44	-	11	48	48
57	Biomass	210	210	-	4.4	93	93
58	Hydro	53	53	-	3.52	19	19
	Sub Total	4041	4041			3343	3343
	Competitive Bidding						
59	APPL	14016	8760	1634	1.43	1256	2890
60	Aryan	1402	1402	226	0.55	77	303
61	Essar - 1000 MW	7008	4380	820	1.27	556	1376
62	ESSAR - 300	25	25	49	5.34	13	62
	Sub Total	22451	14567	2729		1902	4631
	RLNG						
63	GPEC - 655	112	112	208	5.21	58	266
64	Utran Gas Based - 135	25	25	23	5.77	15	38
65	Utran Extension - 375	34	34	62	4.96	17	79
66	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
67	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
68	GIPCL II (160) - 165	35	35	27	5.49	19	46
69	GSEG - 156	13	13	24	5.21	7	31
70	GIPCL - I (145) - 42	9	9	12	5.49	5	17
71	NTPC - KAWAS - 187	19	19	18	5.59	10	28
72	NTPC - JHANOR - 237	24	**24**	31	5.59	13	44
	Sub Total	286	286	424		152	576
	Total	**110244**	**82053**	**11653.81**		**15226**	**26883.81**

Table 6.52: Power purchase cost approved for FY 2015-16

Sl. No	Particulars	FY 2015-16					
		Available MUs	Dispatch MUs	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
	GSECL Plants						
1	Ukai TPS	5082	3388	246.64	1.710	579	825.64
2	Ukai Hydro	345	345	24.42	0 .000	0	24.42
3	Gandhinagar I to IV	4111	1972	266.37	2 .375	468	734.37
4	Gandhinagar V	1339	837	97.24	2 .130	178	275.24
5	Wanakbori I to VI	8035	5022	365.77	2 .108	1059	1424.77
6	Wanakbori VII	1339	837	94.58	2 .022	169	263.58
7	Wanakbori Expansion	5102	3189	673.00	1.600	510	1183
8	Sikka TPS	1329	-	121.68	2 .769		121.68
9	Kutch Lignite I to III	1243	829	221.5	1 .181	98	319.5
10	Kutch Lignite IV	434	289	129.34	1 .109	32	161.34
11	Dhuvaran oi l						
12	Kadana Hydro	126	126	61.45	0 .00	0	61.45
13	Utran Gas Based	505	315	28.82	2 .367	75	103.82
14	Dhuvaran Gas Based - Stage-I	616		47.77	2 .411		47.77
15	Dhuvaran Gas Based - Stage-II	642		56.33	2 .388		56.33
16	Utran Extension	2005	1253	228.9	2 .071	260	488.9
17	Ukai Expansion 6	3206	2004	401	1.54	309	710
18	Sikka 3 & 4	3206	2004	401	1.99	398	799
19	Dhuvaran CCPP Ext - 3	2447		329	3.39		329
	Sub Total	**41112**	**22410**	**3794.81**		**4135**	**7929.81**
	IPPs						
20	ESSAR	1439		202	2.95		202
21	GPEC	2328		307	2.4		307
22	GIPCL II (160)	559	349	27	1.95	68	95
23	GIPCL-SLPP	1478	986	158	1.14	112	271
24	GSEG	858	536	101	1.77	95	196
25	GIPCL - I (145)	140	87	11	2.15	19	30
26	GIPCL Addition	3154	1971	315	1.14	225	540
27	GMDC - Akrimota	1478	986	203	0.74	73	275
28	GSEG Expansion	149	149	238	5	74	312
29	GIPCL Expansion	1577	986	158	1.14	112	270
30	GSPC-Pipavav	296	296	473	5	148	621
31	BECL	3119	1949	390	1.2	234	624
	Sub Total	**16575**	**8295**	**2583**		**1160**	**3743**
	Central Sector						
32	NPC - Tarapur- 1&2	1009	1009	-	0.95	96	96
33	NPC - Kakrapar	767	767	-	2.19	168	168
34	NPC kakrapar addition	247	247	-	2.89	71	71
35	NPC - Tarapur- 3&4	1728	1728	-	2.32	402	402
36	NTPC - Lara	81	81	14	1.31	11	25
37	NTPC - KORBA	2323	1452	74	0.76	110	183
38	NTPC - VINDHYACHAL - I	1467	917	58	1.27	116	174
39	NTPC - VINDHYACHAL - II	1549	968	98	1.23	119	218
40	NTPC - VINDHYACHAL - III	1724	1078	165	1.21	131	296
41	NTPC - KAWAS	971	607	58	2.32	141	198
42	NTPC - JHANOR	1231	769	101	2.14	164	266

Sl. No	Particulars	FY 2015-16					
		Available MUs	Dispatch MUs	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
43	NTPC - Sipat Stage - I	3500	2188	421	0.88	192	613
44	SSNNL - Hydro	283	283	-	2.05	58	58
45	NTPC - Kahalgaon (New)	914	571	172	1.78	102	274
46	NTPC - Sipat Stage-II	1789	1118	192	0.88	98	291
47	NTPC - Mauda STPS-I	1573	983	242	0.89	87	330
48	NTPC - Barh STPS-I	1704	1065	169	0.81	86	255
49	NTPC - Vindhyachal STPS-IV	1573	983	287	0.87	86	373
50	NTPC - Barh STPS-II	1140	713	102	0.89	63	165
51	NTPC - Mauda STPS-II	142	142	40	1.05	15	55
52	NTPC - KORBA II	629	393	102	0.72	28	131
53	Mundra UMPP	12649	7906	1448	0.91	715	2164
54	Ti laiya UMPP	2102	1314	143	0.95	125	268
	Sub Total	41095	27282	**3886**		**3184**	**7074**
	Others						
55	Captive Power Plant (MU)	56	56	-	3.64	20	20
	Sub Total	**56**	**56**	**-**		**20**	**20**
	Renewables						
56	Wind Farms (1.75)	44	44	-	1.75	8	8
57	Wind Farms (3.37)	1575	1575	-	3.37	531	531
58	Wind Farms (3.56)	462	462	-	3.56	164	164
59	Solar Photovoltic	1653	1653	-	15	2480	2480
60	Solar Thermal	44	44	-	11	48	48
61	Biomass	210	210	-	4.4	93	93
62	Hydro	53	53	-	3.52	19	19
	Sub Total	**4041**	**4041**			**3343**	**3343**
	Competitive Bidding						
63	APPL	14016	8760	1634	1.43	1256	2890
64	Aryan	1402	876	226	0.55	48	275
65	Essar - 1000 MW	7008	4380	820	1.27	556	1376
66	Wardha Power - KSK Mahanadi Power Co	6498	4424	939	0.62	274	1213
67	Essar - 800 MW	5147	3504	732	1.38	484	1216
68	Shapoorj i Pal lonj i	5147	3504	732	1.38	484	1216
69	ESSAR - 300	25	25	49	5.34	13	62
	Sub Total	**39243**	**25473**	**5132**		**3115**	**8248**
	RLNG						
70	GPEC - 655	112	112	208	5.21	58	266
71	Utran Gas Based - 135	25	25	23	5.77	15	38
72	Utran Extension - 375	34	34	62	4.96	17	79
73	Dhuvran Gas Based - Stage 1 - 107	7	7	8	5.26	4	12
74	Dhuvran Gas Based - Stage 2 - 112	8	8	11	5.26	4	15
75	GIPCL II (160) - 165	35	35	27	5.49	19	46
76	GSEG - 156	13	13	24	5.21	7	31
77	GIPCL - I (145) - 42	9	9	12	5.49	5	17
78	NTPC - KAWAS - 187	19	19	18	5.59	10	28

Sl. No	Particulars	FY 2015-16					
		Available MUs	Dispatch MUs	Fixed Cost (Rs.Crs)	Variable Cost (Rs /Unit)	Variable Cost (Rs Crs)	Total Cost (Rs Crs)
79	NTPC - JHANOR - 237	24	24	31	5.59	13	44
	Sub Total	**286**	**286**	**424**		**152**	**576**
	Total	**142408**	**87787**	**15819.81**		**15109**	**30933.81**

6.8.14 Transmission and other costs

Transmission costs

The transmission costs include the cost to be paid to PGCIL for regional transmission and cost of GETCO for intra-state transmission.

The transmission charges of PGCIL are approved by CERC and to be paid by GUVNL on the basis of calculations in the Regional Energy Account of Western Region by WRLDC. Hence, the Commission accepts the projection of PGVCL / GUVNL for PGCIL charges. The transmission charges of GETCO are approved by the Commission in the MYT Order of GETCO. The transmission charges payable to PGCIL and GETCO are as given in the Table below:

Table 6.53: Transmission charges approved by the Commission 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	Transmission charges of PGCIL (Rs. crore)	280	294	309	324	340
2	Transmission charges of GETCO (Rs./MW/day)	2775.06	2953.99	3244.85	3029.08	2727.17
3	Annual transmission costs of GETCO (Rs. crore)	1185	1594	1887	1923	2192
4	**Total transmission charges (Rs. crore)**	**1465**	**1888**	**2196**	**2247**	**2532**

The CERC has since revised the transmission charges for PGCIL transmission system. The impact of this revision shall be reported to the Commission every quarter.

GUVNL Costs

The PGVCL has submitted in paragraph 6.7.5 above that GUVNL is charging Rs.0.04 for every transaction of one unit of energy for providing the services of procuring the power from various sources and supplying to DISCOMs, the overall coordination between the subsidiary companies and also undertaking the function of raising and managing the overall loan portfolio of GUVNL and its subsidiaries.

The Commission considers the charges at Rs.0.04/unit to handle power procurement and supply, etc., reasonable based on the cost approved for FY 2010-11 and approves the GUVNL costs, as given below, based on the energy handled during the control period.

Table 6.54: GUVNL costs approved by the Commission 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	Energy handled (MU)	67077	71760	76745	82053	87787
2	GUVNL cost (Rs. crore)	268	287	307	328	351

SLDC fees and charges

PGVCL / GUVNL has submitted that the SLDC fees and charges have been taken as approved by the Commission in the SLDC MYT Order dated 31st March, 2011.

The Commission approves the SLDC charges, as given in the Table below:

Table 6.55: SLDC charges approved by the Commission

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
SLDC charges	8	9	9	9	9

6.8.15 Trading

As discussed earlier in paragraph 6.7.7, GUVNL has projected trading of surplus power based on its capacity to sell. GUVNL has estimated 6000 MU for FY 2011-12, 7000 MU for FY 2012-13, and increasing the energy sales by 1000 MU every year and thus reaching a level of 10,000 MU for the FY 2015-16. Based on the total energy available on merit order and the requirement of DISCOMs, the energy available for trading during FY 2011-12 to FY 2015-16 is 46906 MU.

Trading cost is based on variable and fixed costs of the respective power plants.

The Commission considers the estimated revenue by trading at a margin of Rs.1.0 per unit as projected by GUVNL, to arrive at the net power purchase cost to all the DISCOMs as shown in the Table 6.58.

6.8.16 Fixed costs

The total power purchase cost consisting of the cost of power procured from various sources, transmission costs of PGCIL and GETCO, SLDC charges and trading costs approved by the Commission is aggregated to arrive at the total power purchase cost for all DISCOMs / trading unit. The fixed costs due to the capacity contracted by GUVNL is passed on to DISCOMs. For trading on the bases of energy dispatched, the fixed cost allocated to trading, as given in the table below:

Table 6.56: Fixed cost for DISCOMs and Trading units approved from FY 2011-12 to FY 2015-16

Year	Fixed Cost (Rs. crore)	GETCO cost (Rs. crore)	PGCIL charges (Rs.crore)	SLDC charges (Rs. crore)	Total Fixed cost (Rs. crore)	DISCOM Fixed cost (Rs. crore)	Trading Fixed cost (Rs. crore)
FY 2011-12	6690	1185	280	8	8163	8163	947.79
FY 2012-13	9239	1594	294	9	11136	11136	1444.20
FY 2013-14	10274	1887	309	9	12479	12479	1759.58
FY 2014-15	11654	1923	324	9	13910	13910	2080.99
FY 2015-16	15820	2192	340	9	18361	18361	2853.23

6.8.17 Variable costs

The total variable cost consists of the energy costs supplied to DISCOMs as well as for trading. The total variable cost and variable cost per unit are given in the table below:

Table 6.57: Variable cost for DISCOMs and trading energy approved for the control period for FY 2011-12 to FY 2015-16

Year	Variable cost (Rs. crore)	GUVNL cost (Rs. crore)	Total variable cost (Rs. crore)	Total MU dispatched	Variable cost (Rs./ unit)	DISCOM		Trading	
						MU	Variable cost (Rs. crore)	MU	Variable cost (Rs. crore)
FY 2011-12	12191	268	12459	67077	1.857	60099	11162.89	6978	1296.11
FY 2012-13	12779	287	13066	71760	1.821	63522	11566.03	8238	1499.97
FY 2013-14	14466	307	14773	76745	1.925	67261	12947.38	9484	1825.62
FY 2014-15	15231	328	15559	82053	1.896	71375	13534.22	10678	2024.78
FY 2015-16	15112	351	15463	87787	1.761	75980	13383.29	11807	2079.71

6.8.18 Net power purchase cost

The revenue from trading of energy by GUVNL is calculated based on the fixed and variable cost of generation plus Rs.1.00 per unit, which will also include the profit margin and GUVNL trading margin.

The revenue earned from sale of power to traders and others is subtracted from the total power purchase cost to arrive at net power purchase cost to DISCOMs. The net power purchase cost to DISCOMs as approved by the Commission is given in the table below:

Table 6.58: Net power purchase cost for the control period FY 2011-12 to FY 2015-16

Year	DISCOM fixed cost (Rs. crore)	DISCOM variable cost (Rs. crore)	Total power purchase cost (Rs. crore)	Trading fixed cost (crore)	Trading variable cost (Rs. crore)	Margin of GUVNL due to trading etc. (Rs. crore	Total trading revenue (Rs. crore)	Net* cost (Rs. crore)
FY 2011-12	8163	11162.89	19325.89	947.79	1296.11	697.80	2942	17680.30
FY 2012-13	11136	11566.03	22702.03	1444.20	1499.97	823.80	3768	20434.03
FY 2013-14	12479	12947.38	25426.38	1759.58	1825.62	948.40	4534	22718.40
FY 2014-15	13910	13534.22	27444.22	2080.99	2024.78	1067.80	5174	24295.43
FY 2015-16	18361	13383.29	31744.29	2853.23	2079.71	1180.70	6114	27710.36

** Total power purchase cost – (trading fixed costs + profit and trading margin)*

6.9 Fixed charges

6.9.1 Operation and Maintenance (O&M) expenses

The PGVCL has claimed Rs. 2583.00 crore towards O&M expenses for the control period FY 2011-12 to FY 2015-16 as given in the table below:

Table 6.59: Proposed O&M expenses projected for FY 2011-12 to 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Employee cost	391.00	414.00	437.00	462.00	489.00
2.	Repairs & Maintenance	84.00	89.00	94.00	99.00	105.00
3.	Administration & General charges	74.00	79.00	83.00	88.00	93.00
4.	Other Debits	5.00	5.00	5.00	6.00	6.00
5.	Extraordinary items	-	-	-	-	-
6.	Net prior period expenses / (income)	17.00	18.00	19.00	20.00	22.00
7.	Other expenses capitalized	(111.00)	(118.00)	(124.00)	(131.00)	(139.00)
8.	**Total O&M expenses**	**461.00**	**487.00**	**515.00**	**544.00**	**576.00**

Petitioner's submission

The PGVCL has submitted that the O&M expenses consist of Employee cost, A&G expenses, R&M expenses, other debits, extraordinary items and net prior period expenses. PGVCL has mentioned that the norms as specified in the GERC MYT Regulations, 2011 have been considered in the petition as detailed below.

The O&M expenses have been derived on the basis of average of the actual O&M expenses for the three (3) years ending March 31, 2010.

The average of such O&M expenses are considered as O&M expenses for FY 2008-09 and are escalated at the escalation factor of 4% per annum to arrive at O&M expenses for FY 2011-12.

The O&M expenses for subsequent years of MYT have been determined by escalating the base expenses determined for FY 2011-12, at the escalation factor of 5.72% per annum.

The average O&M expenses for FY 2008-09 are as given in the table below:

Table 6.60: Average O&M expenses for FY 2008-09

(Rs. crore)

Sl. No.	Particulars	FY 2007-08 (Actuals)	FY 2008-09 (Actuals)	FY 2009-10 (Actuals)	FY 2008-09 (Average)
1.	Employee cost	290.16	363.46	389.93	347.85
2.	Repairs & Maintenance	82.86	66.52	75.09	74.82
3.	Administration & General charges	54.47	68.66	75.16	66.10
4.	Other Debits	2.86	2.94	7.16	4.32
5.	Extraordinary items	-	-	-	-
6.	Net prior period expenses / (income)	28.67	12.55	4.75	15.32
7.	Other expenses capitalized	(42.47)	(121.56)	(132.44)	(98.82)
8.	**Total O&M expenses**	**416.54**	**392.58**	**419.65**	**409.59**

Commission's Analysis

The Employee expenses, R&M expenses and A&G expenses are commonly considered as O&M expenses. PGVCL has also included the following in the O&M expenses as per the directive issued by the Commission:

- Other debits
- Extraordinary item
- Net prior period expenses and
- Other expenses capitalized

The O&M expenses are arrived at by PGVCL in accordance with Regulation 98.6 of GERC (MYT) Regulations, 2011. The actual O&M expenses for the years FY 2007-08, FY 2008-09 and FY 2009-10 furnished by PGVCL are verified with the audited annual accounts for the respective years and found to be correct. The O&M expenses proper viz., the Employee cost, R&M expenses and A&G expenses are accepted as projected by PGVCL as they are in accordance with the (MYT) Regulations, 2011. In the case of other items of expenses viz., ‘other debits’ and extraordinary items they can at best be recognized at the level of actual for the year for which audited annual accounts are provided. The net prior period expenses / income depend on the excess / short provision made in the Books of Accounts in the past. This cannot be accepted for projection. It is relevant to mention that PGVCL has not projected any prior period income under non-tariff income for the control period.

Regarding capitalization of other expenses the projection is considered as this relates to capitalization of Employee cost, A&G expenses etc.
The O&M expenses considered for the control period FY 2011-12 to FY 2012-13 are summarized in the table below:

Table 6.61: Approved O&M expenses for FY 2011-12 to 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Employee cost	391.28	413.67	437.33	462.34	488.79
2.	Repairs & Maintenance	84.16	88.98	94.07	99.45	105.13
3.	Administration & General charges	74.35	78.61	83.10	87.86	92.88
4.	Other Debits	7.16	7.16	7.16	7.16	7.16
5.	Extraordinary items	-	-	-	-	-
6.	Net prior period expenses / (income)	0.00	0.00	0.00	0.00	0.00
7.	Other expenses capitalized	(111.00)	(118.00)	(124.00)	(131.00)	(139.00)
8.	**Total O&M expenses**	**445.95**	**470.42**	**497.66**	**525.81**	**554.96**

The Commission, accordingly, approves the O&M expenses as detailed in the table above for the control period FY 2011-12 to FY 2015-16.

6.9.2 Capital expenditure

The PGVCL has projected the capital expenditure at Rs. 6161.00 crore for the control period FY 2011-12 to FY 2015-16 as given the table below:

Table 6.62: Capital expenditure projected for FY 2010-11 to FY 2015-16

(Rs. crore)

Sl. No.	Schemes	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
A.	**Distribution Schemes**					
	Normal Development Scheme	174.00	192.00	207.00	224.00	241.00
	System Improvement Scheme	98.00	106.00	114.00	123.00	133.00
	Electrification of hutments	7.00	7.00	7.00	7.00	7.00
	Kutir Jyoti Scheme	-	-	-	-	-
	Scheme for meters	60.00	65.00	72.00	75.00	75.00
	Others Harijan Basti	-	-	-	-	-
	Total	**339.00**	**370.00**	**400.00**	**429.00**	**457.00**
B.	**Rural Electrification Schemes**					
	TASP(Wells & Petapara)	-	-	-	-	-
	Special Component plan	0.00	0.00	0.00	0.00	0.00
	Others Petapara	-	-	-	-	-
	RE Normal + Tatkal	420.00	420.00	420.00	420.00	420.00
	RE Wells (OA & SPA)	-	-	-	-	-
	Dark zone	-	-	-	-	-
	BADP	1.00	1.00	1.00	1.00	1.00
	Total	**421.00**	**421.00**	**421.00**	**421.00**	**421.00**
C.	Others					
	Energy efficient pump	2.00	2.00	2.00	2.00	2.00
	Energy Conservation	-	-	-	-	-
	Independent certification agency	-	-	-	-	-
	Total	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**
D.	**Non Plan Schemes**					
	RE Non Plan (Tatkal)	-	-	-	-	-
	RAPDRP	258	217	156	-	-
	SCADA/DMS	103	64	-		
	RGGVY	-	-	-	-	-
	DRUM	-	-	-	-	-
	Total	361	281	156	-	-
E.	**Other New Schemes**					
	Civil work	12.00	15.00	18.00	22.00	25.00
	Automatic PF control panels	-	-	-	-	-
	Ring Main Unit	-	-	-	-	-
	Aerial Bunch Conductors	1.00	1.00	1.00	1.00	1.00
	HVDS in selected sub-division	100.00	300.00	400.00	100.00	100.00
	Automatic meter reading	-	-	-	-	-
	GIS in cities	-	-	-	-	-
	JGY Load Shedding Transformers	-	-	-	-	-
	Marine Cable for Shiyalbet	1.00	1.00	1.00	1.00	1.00
	Others schemes (General Schemes)	-	-	-	-	-
	Earthquake Rehabilitation	-	-	-	-	-
	Coastal area scheme	30.00	30.00	30.00	30.00	30.00
	Total	**144.00**	**347.00**	**450.00**	**154.00**	**157.00**
	Capital Expenditure Total	**1268.00**	**1421.00**	**1429.00**	**1006.00**	**1037.00**

Petitioner's submission

The PGVCL has submitted that the capital expenditure required for providing earth-terminals as per petition No. 909/2006 is not considered in the CAPEX projected for the control period and requested the Commission to consider the capital expenditure of the same as per actual as and when incurred.

The PGVCL has further submitted that the funding of the projected capital expenditure is envisaged through various sources categorized under four headings viz., consumer contribution, grants, equity and debt and the grants have been considered based on the figures available with the company while the remaining expenditure is proposed to be funded though debt and equity in the ratio of 70:30. The details of funding the CAPEX are as detailed in the table below:

Table 6.63: Projected Funding of capital expenditure proposed for the control period FY 2011-12 to FY 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Capital expenditure	1268.00	1421.00	1429.00	1006.00	1037.00
2.	Less: Consumer contribution	157.00	172.00	186.00	201.00	217.00
3.	Grants	9.00	9.00	9.00	9.00	9.00
4.	Balance CAPEX	1102.00	1240.00	1235.00	796.00	811.00
5.	Debt @ 70%	772.00	868.00	864.00	557.00	568.00
6.	Equity @ 30%	331.00	372.00	370.00	239.00	243.00

Commission's Analysis

The Commission has examined the capital expenditure plan projected for the control period. PGVCL has envisaged huge capital expenditure under RE Normal + Tatkal, non-plan scheme viz., RAPDRP, SCADA / DMS and new schemes like HVDS for the control period. It is noted that the actual capital expenditure incurred during FY 2009-10 was Rs. 637.75 crore and the proposed capital expenditure for each year of the control period is about Rs. 1230.00 crore an average. Further PGVCL has proposed to capitalize the entire proposed investment during the year itself. While capital investment is required to be made by the Distribution company for various purposes like the creation of new infrastructure to meet the load growth, to meet statutory requirements, to strengthen the existing system and increase its operational efficiency, replace old and obsolete assets, any such capital investment increases the fixed asset base, resulting in the higher debt servicing, higher return on equity and higher depreciation which ultimately affects the tariffs to consumers. The Commission finds it necessary to ensure that the proposed capital investment schemes do not impose avoidable burden on the consumers by way of increase in tariff and that the CAPEX should be utilized at optimum level.

The Commission is of the opinion that the proposed CAPEX is quite high and requires a review. However the Commission would not like to prune down the proposed capital investment at this stage pending a review.

The Commission provisionally approves the capitalization by considering the 40% of the opening balance of works-in-progress and 60% of CAPEX proposed by PGVCL during each year of the control period.

The CAPEX, capitalization and funding approved by the Commission are given in the Table below:

Table 6.64: Approved CAPEX, capitalization and funding 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	-	507.92	873.15	1095.49	1059.69
Add: New investment	1268.00	1421.00	1429.00	1006.00	1037.00
Total	**1268.00**	**1928.92**	**2302.15**	**2101.49**	**2096.69**
Less: Investment capitalized	760.08	1055.77	1206.66	1041.80	1048.08
Closing balance	507.92	873.15	1095.49	1059.69	1050.61
Funding of Capex					
Capitalization	760.08	1055.77	1206.66	1041.80	1046.08
Less: Consumer contribution	157.00	172.00	186.00	201.00	217.00
Grants	9.00	9.00	9.00	9.00	9.00
Balance CAPEX	594.08	874.77	1011.66	831.80	820.00
Normative Debt @ 70%	415.86	612.34	708.16	582.26	574.00
Normative Equity @ 30%	178.22	262.34	303.50	249.54	246.00

The Commission has arrived at the opening and closing balance of GFA taking into consideration the capitalization approved in the above table as detailed in the table below:

Table 6.65: Gross fixed assets approved for the control period FY 2011-12 to FY 2015-16

(Rs. crore)

Particulars	Opening balance	Additions during the year	Closing balance
FY 2011-12	5022.95	760.08	5783.03
FY 2012-13	5783.03	1055.77	6838.80
FY 2013-14	6838.80	1206.66	8045.46
FY 2014-15	8045.46	1041.80	9087.26
FY 2015-16	9087.26	1046.08	10133.34

The gross fixed assets as mentioned in the above table are taken into consideration for computation of depreciation charges.

6.9.3 Depreciation

The PGVCL has projected the depreciation at Rs. 2251.00 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.66: Depreciation projected for the control period

(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	5302.00	6570.00	7991.00	9420.00	10426.00
Additions during the year (Net)	1268.00	1421.00	1429.00	1006.00	1037.00
Depreciation for the year	**313.00**	**383.00**	**458.00**	**522.00**	**575.00**
Average rate of depreciation	5.27%	5.26%	5.26%	5.26%	5.26%

Petitioner's submission

The PGVCL has submitted that it has considered the closing gross block of fixed assets of FY 2010-11 as opening balance for FY 2011-12. The addition of assets during the control period is considered as per the projected capital expenditure and the proposed capitalization. The average rate of depreciation adopted ranged from 5.27% to 5.26%.

Commission's Analysis

The Commission noted that the petitioner has computed the depreciation for the control period FY 2011-12 to 2015-16 adoptng the CERC rates of depreciation. The Commission has approved the capitalization and gross fixed assets in paragraph 6.9.2 above. The Commission has considered the average rate of depreciation at 5.27% in accordance with the GERC (MYT) Regulations, 2011. The Commission has computed the depreciation based on the opening balance of GFA and addition of assets approved in table 6.67 above which are as given the table below:

Table 6.67: Approved Depreciation 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	5022.95	5783.03	6838.8	8045.46	9087.26
Additions during the year	760.08	1055.77	1206.66	1041.80	1046.08
Average rate of depreciation	5.27%	5.27%	5.27%	5.27%	5.27%
Depreciation for the year	**284.74**	**332.59**	**392.20**	**451.45**	**506.46**

The Commission, accordingly, approves the depreciation for the control period as detailed in the above table.

6.9.4 Interest and Finance charges

The PGVCL has projected the interest and finance charges at Rs. 914.00 crore including interest on security deposit from consumers and guarantee charges for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.68: Interest and Finance charges projected for the control period

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Opening loan	1311.00	1770.00	2255.00	2661.00	2697.00
2.	Loan additions during the year	772.00	868.00	864.00	557.00	568.00
3.	Repayment during the year	313.00	383.00	458.00	522.00	575.00
4.	Closing loan	1770.00	2255.00	2661.00	2697.00	2689.00
5.	Average loan	1541.00	2013.00	2458.00	2679.00	2693.00
6.	Interest on loan	97.00	127.00	155.00	169.00	170.00
7.	Interest on security deposit	37.00	37.00	37.00	37.00	37.00
8.	Guarantee charges	2.00	2.00	2.00	2.00	2.00
9.	**Total interest and finance charges**	**137.00**	**166.00**	**194.00**	**208.00**	**209.00**

Petitioner's submission

The PGVCL has submitted that the opening loan for FY 2011-12 is taken as per the closing balance of loan for FY 2010-11 and the normative loan addition for the control period is computed as per the CAPEX funding plan and the repayment is considered equal to the depreciation calculated for the year. The interest on the opening loans has been computed considering the weighted average rate of interest for the last year and @ 10.50% on the new loans proposed to be drawn during the year.

The PGVCL has further submitted that the company has allocated some Government of Gujarat guarantees and the company has to pay the guarantee charges, which are considered at the same level as estimated in the RE for FY 2010-11. The interest on security deposit is also considered at the same level as in the RE for FY 2010-11.

Commission's Analysis

The opening balance of loans for FY 2011-12 is as per the closing balance of loans for FY 2010-11. The repayment of loans considered by PGVCL is in accordance with the Regulation 39 of GERC (MYT) Regulations, 2011 for the control period. PGVCL has assumed the loan addition based on the entire capitalization of CAPEX during the year of investment. The Commission has approved the capitalization in paragraph above and the loan additions are computed accordingly in the table. PGVCL has not furnished the weighted average rate of interest adopted for the control period. The Commission has observed that as per the projection made by PGVCL the average interest works out to 6.30%. The Commission has however adopted the weighted average rate of 7.33% considered in APR for FY 2010-11. PGVCL has not projected increase the interest on security deposit during the control period. Considering all the above the Commission has computed the interest and finance charges for the control period which are as given in the table below:

Table 6.69: Approved Interest and Finance charges for the control period FY 2011-12 to FY 2015-16

(Rs. crore)

Sl. No	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Opening loan	1140.63	1271.75	1551.50	1867.46	1998.28
2.	Loan additions during the year	415.86	612.34	708.16	582.26	574.06
3.	Repayment during the year	284.74	332.59	392.20	451.45	506.46
4.	Closing loan	1271.75	1551.50	1867.46	1998.28	2065.87
5.	Average loan	1206.19	1411.63	1709.48	1932.87	2032.07
6.	Average rate of interest	7.33%	7.33%	7.33%	7.33%	7.33%
7.	Interest on loan	88.41	103.47	125.31	141.68	148.95
8.	Interest on security deposit	37	37	37	37	37
9.	Guarantee charges	2	2	2	2	2
10.	**Total interest and finance charges**	**127.41**	**142.47**	**164.31**	**180.68**	**187.95**

The Commission, accordingly, approves the interest and finance charges as detailed in the above table.

6.9.5 Interest on working capital

The PGVCL has projected the interest on working capital at Rs. 486.00 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.70: Projected Interest on working capital for the control period

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses	39.00	43.00	48.00	54.00	60.00
Maintenance spares	71.00	89.00	109.00	126.00	143.00
Receivables	536.00	618.00	681.00	718.00	805.00
Total working capital	**645.00**	**751.00**	**839.00**	**898.00**	**1008.00**
Rate of interest on working capital	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working	**76.00**	**88.00**	**99.00**	**105.00**	**118.00**

Capital					

Petitioner's submission

The PGVCL has submitted that the interest on working capital has been calculated on normative parameters in accordance with the GERC (MYT) Regulations, 2011. The rate of interest considered is 11.75% being the State Bank Advance Rate (SBAR) as on 1st April, 2010 under Regulation 41 (3) (b) of the GERC (MYT) Regulations, 2011.

Commission's Analysis

The Commission has examined the computation of interest on working capital submitted by PGVCL. The O&M expenses for one month and maintenance spares at 1% GFA are considered by the company as per its projection. The Commission has analyzed and approved the O&M expenses and GFA in tables 6.63 and 6.47. Based on the approved O&M expenses and GFA the Commission has computed the working capital and interest on working capital which are as detailed in the table below

Table 6.71: Interest on working capital approved for the control period

(Rs. crore)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
O&M expenses for 1month	37.16	39.20	41.47	43.82	46.25
1 % of GFA for maintenance spares	50.23	57.83	68.39	80.45	90.87
Receivables for 1 month sales revenue at the prevailing tariffs	459.25	486.07	515.02	546.38	580.46
Less: Amount held as security deposit from consumers	1175.08	1175.08	1175.08	1175.08	1175.08
Total Working Capital equirement	-628.43	-591.98	-550.20	-504.43	-457.50
Interest Rate	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**-**	**-**	**-**	**-**	**-**

The Commission, accordingly, approves the interest on working capital as detailed in the above Table for the control period for FY 2010-11 to FY 2015-16.

6.9.6 Provision for bad and doubtful debts

The PGVCL has estimated the bad debts at Rs. 52.00 crore for the control period FY 2011-15 to FY 2015-16 which are as given in the table below:

Table 6.72: Bad and doubtful debts projected for FY 2011-12 to 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Provision for bad debts	9.00	10.00	10.00	11.00	12.00

Petitioner's submission

The PGVCL has submitted that the company has considered the bad & doubtful debts at 0.20% of the revenue from sale of power and that it is a legitimate expenditure associated with the business risk and is consumer related expense.

Commission's Analysis

The Regulation 98.8 of the GERC (MYT) Regulations, 2011 specifies that the Commission may allow bad debts written off as a pass through, in the ARR. The latest audited accounts available in respect of PGVCL are for FY 2009-10. The Commission has approved the bad debts written off at Rs.8.58 crore in the truing up for FY 2009-10.

The Commission, accordingly, approves provision for bad debts at Rs.8.58 crore for each year of the control period FY 2011-12 to FY 2015-16 as given in the table below:

Table 6.73: Approved bad and doubtful debts for FY 2011-12 to 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Provision for bad debts	8.58	8.58	8.58	8.58	8.58

6.9.7 Return on equity

The PGVCL has projected the return on equity at Rs. 1569.00 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.74: 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	1402.00	1733.00	2105.00	2475.00	2714.00
Equity addition	331.00	372.00	370.00	239.00	243.00
Closing equity	1733.00	2105.00	2475.00	2714.00	2957.00
Average equity	1567.00	1919.00	2290.00	2594.00	2835.00
Rate of return on equity	14%	14%	14%	14%	14%
Return on equity	**219.00**	**269.00**	**321.00**	**363.00**	**397.00**

Petitioner's submission

The PGVCL has submitted that the return on equity has been computed @ 14% on average equity based on the opening balance of equity and normative additions during the year, which has been arrived at by considering 30% of the capital expenditure net of consumer contribution and grants.

Commission's Analysis

The Commission has computed the return on equity @ 14% on the average equity of the opening and closing balance and addition of equity during each year of the control period as approved in the table below:

Table 6.75: Approved Return on equity 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	1306.59	1484.814	1747.245	2050.743	2300.283
Equity addition	178.22	262.43	303.50	249.54	246.02
Closing equity	1484.814	1747.245	2050.743	2300.283	2546.307
Average equity	1395.70	1616.03	1898.99	2175.51	2423.30
Rate of return on equity	14%	14%	14%	14%	14%
Return on equity	195.40	226.24	265.86	304.57	339.26

The Commission, accordingly, approves the return on equity as detailed in the above table for the control period FY 2011-12 to FY 2015-16.

6.9.8 Provision for Tax

The PGVCL has projected the income tax at Rs. 75.00 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below :

Table 6.76:Taxes 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
Normative ROE	219.00	269.00	321.00	363.00	397.00
Provision for tax / tax expenses	15.00	15.00	15.00	15.00	15.00

Petitioner's submission

The PGVCL has submitted that the income tax for each year of the control period has been taken as per the actual income tax paid as per the latest audited accounts i.e FY 2009-10 and requested the Commission to pass on the impact of revised tax rates as per the budget by the Central Government.

Commission's Analysis

The Regulation 42.1 of GERC (MYT) Regulations, 2011 specifies that the Commission in its MYT order shall provisionally approve income tax payable for each year of the control period, if any, based on the actual income tax paid as per the latest audited accounts available for the applicant, subject to prudence check. The latest audited accounts available for PGVCL are for FY 2009-10 and the income tax admitted in the truing up for FY 2009-10 is Rs. 15.24 crore.

The Commission, accordingly, approves the provision for income tax for the control period for FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.77: Approved Income tax 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
Income Tax	15.24	15.24	15.24	15.24	15.24

Any variation in income tax actually paid and approved shall be considered based on the documentary evidence at the time of truing up for each year of the control period in accordance with the Regulation 42.2 of the GERC (MYT) Regulations, 2011.

6.9.9 Non-Tariff income

The PGVCL has projected the non-tariff income at Rs. 710.00 crore for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.78: Non-Tariff income projected for the control period FY 2010-11 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	142.00	142.00	142.00	142.00	142.00

Petitioner's submission

The PGVCL has submitted that the income under this category comprises of interest on loans and advances to employees / contractors, income from investment with banks, delayed payment surcharges from the consumers and the non-tariff income considered at the level of actual in FY 2009-10 for the control period FY 2011-12 to FY 2015-16.

Commission's Analysis

The Commission has noted that the actual non-tariff income in FY 2009-10 was Rs. 142.11 crore and the projection for the control period is in accordance with the actual for FY 2009-10.

The Commission, accordingly, approves the non-tariff income for the control period FY 2011-12 to FY 2015-16 as detailed in the table below:

Table 6.79: Approved Non-tariff income for 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	142.11	142.11	142.11	142.11	142.11

6.10 Annual Revenue Requirement (ARR) excluding power purchase cost

The PGVCL has submitted that the ARR for the control period FY 2011-12 to FY 2015-16 has been calculated excluding the power purchase cost to determine the Bulk Supply Tariff (BST) for each DISCOM since the BST methodology has been adopted by the utilities.

The ARR as projected by PGVCL is as detailed in the table below:

Table 6.80: Projected ARR for the control period excluding power purchase cost

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1.	Operation & Maintenance Expenses	461.00	487.00	515.00	544.00	576.00
1.1	Employee Cost	391.00	414.00	437.00	462.00	489.00
1.2	Repair & Maintenance	84.00	89.00	94.00	99.00	105.00
1.3	Administration & General Charges	74.00	79.00	83.00	88.00	93.00
1.4	Other debits	5.00	5.00	5.00	6.00	6.00
1.5	Extraordinary items	-	-	-	-	-
1.6	Net prior period expenses /	17.00	18.00	19.00	20.00	22.00
1.7	Other expenses capitalized	(111.00)	(118.00)	(124.00)	(131.00)	(139.00)
2	Depreciation	313.00	383.00	458.00	522.00	575.00
3	Interest & Finance Charges	137.00	166.00	194.00	208.00	209.00
4	Interest on Working Capital	76.00	88.00	99.00	105.00	118.00
5	Provision for bad debts	9.00	10.00	10.00	11.00	12.00
6	**Sub-Total (1 to 5)**	**995.00**	**1134.00**	**1276.00**	**1391.00**	**1490.00**
7	Return on Equity	219.00	269.00	321.00	363.00	397.00

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
8	Provision for Tax	15.00	15.00	15.00	15.00	15.00
9	**Total Expenditure (7 to 9)**	**1230.00**	**1418.00**	**1612.00**	**1769.00**	**1902.00**
10	Less: Non-Tariff Income	142.00	142.00	142.00	142.00	142.00
	Aggregate Revenue Requirement without power purchase expenses (9-10)	**1087.00**	**1276.00**	**1470.00**	**1627.00**	**1760.00**

The Commission has analyzed the components of ARR in the foregoing paragraphs and approved the ARR as summarized in the table below:

Table 6.81: Approved ARR for PGVCL for the control period excluding power purchase cost

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Operation & Maintenance Expenses	549.80	581.25	614.50	649.64	686.80
1.1	Employee Cost	391.28	413.67	437.33	462.34	488.79
1.2	Repair & Maintenance	84.17	88.98	94.07	99.45	105.14
1.3	Administration & General Charges	74.35	78.60	83.10	87.85	92.88
2	Other debits	7.16	7.16	7.16	7.16	7.16
3	Extraordinary items	0.00	0.00	0.00	0.00	0.00
4	Net prior period expenses	0.00	0.00	0.00	0.00	0.00
5	Other expenses capitalized	-111.00	-118.00	-124.00	-131.00	-139.00
6	Depreciation	284.74	332.59	392.20	451.45	506.46
7	Interest & Finance Charges	127.41	142.47	164.31	180.68	187.95
8	Interest on Working Capital					
9	Provision for bad debts	8.58	8.58	8.58	8.58	8.58
10	**Sub-Total (1 to 9)**	**866.69**	**954.05**	**1062.74**	**1166.51**	**1257.96**
11	Return on Equity	195.40	226.24	265.86	304.57	339.26
12	Provision for Tax	15.24	15.24	15.24	15.24	15.24
13	**Total Expenditure (10 to 12)**	**1077.33**	**1195.53**	**1343.84**	**1486.32**	**1612.46**
14	Less: Non-Tariff Income	142.11	142.11	142.11	142.11	142.11

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
	Aggregate Revenue Requirement without power purchase expenses (13-14)	**935.22**	**1,053.42**	**1,201.73**	**1,344.21**	**1,470.35**

6.11 Revenue from existing tariff for FY 2011-12

The PGVCL has estimated the category-wise revenue based on existing tariff at Rs. 4529.00 crore for FY 2011-12 as detailed in the table below:

Table 6.82: Revenue from existing tariff projected for FY 2011-12

(Rs. crore)

Consumer category	FY 2011-12
Low tension consumers	
Residential	791.00
Commercial	504.00
Industrial LT	655.00
Public water works	97.00
Agriculture	531.00
Street light	28.00
LT total	2606.00
High tension consumers	
Industrial HT	1923.00
Railway traction	-
HT total	1923.00
Total	**4529.00**

Petitioner's submission

The PGVCL has submitted that FPPPA had been frozen at 12 paise per kWh over and above variation in base price and proposed to revise base cost of power purchase considered by the Commission in the Tariff order dated 17th January, 2009 with latest available audited data. PGVCL has mentioned that it has taken actual of FY 2009-10 for central generating stations and IPPs and for GSECL stations actual variable cost for FY 2009-10 is considered and fixed cost is taken as approved for FY 2010-11. PGVCL has requested to freeze the FPPPA at 61 paise per kWh being the actual for FY 2009-10 in place of existing 12 paise per kWh.

The PGVCL has also mentioned that the real time, PPPA charges will be worked out based on actual cost of power plants in comparison to base price approved by the Commission and this will be charged over and above the freezed level of 61 paise per kWh.

Commission's Analysis

The Commission has analyzed the category-wise sales projected by PGVCL for the control period FY 2011-12 to FY 2015-16. Based on the analysis the Commission has revised the category-wise sales projection for the control period. Taking into consideration the average tariff under each category, the Commission has computed the revenue from sale of power at the existing tariff for the FY 2011-12 as detailed in the table below:

Table 6.83: Approved sales and Revenue for FY 2011-12

Sl. No.	Category	Average Tariff (Rs. /kWh)	Sales (MU)	Revenue (Rs.crore)
1	Domestic	3.06	2581	789.79
2	Commercial	4.81	1049	504.57
3	Industrial LT	4.56	1436	654.82
4	Public water works	2.85	364	96.46
5	Agriculture	1.03	4910	505.73
6	Publci lighting	3.35	82	27.47
7	Industrial HT	4.69	4099	1922.43
	Total		**14521**	**4501.26**

6.12 Other consumer related income

The PGVCL has estimated the other consumer related income at Rs. 73.00 crore for FY 2011-12 as detailed in the table below:

Table 6.84: Other consumer related income projected for FY 2011-12

(Rs. crore)

Particulars	FY 2011-12
Rental for meters, service lines	54.00
Recoveries from theft of power	44.00
Wheeling charges	-
Misc. charges from consumers	27.00
Other consumer related consumers	**124.00**

Petitioner's submission

The PGVCL has submitted that the revenue from other consumer related income comprises revenue on account of charge imposed other than the basic charges applicable to the consumers like meter rent, wheeling charges, inspection charges and miscellaneous charges.

Commission's Analysis

The Commission has observed that PGVCL has projected the other consumer related income for FY 2011-12 at the same level as actual for FY 2009-10.

The Commission, accordingly, approves the other consumer related income at Rs. 124.00 crore for each year of the control period FY 2011-12 to FY 2015-16.

6.13 Agriculture subsidy

The PGVCL has submitted that the quantum of agricultural subsidy has been considered at the same level as past year i.e Rs. 1100 crore for FY 2011-12 and this is being shared by the four DISCOMs viz. PGVCL, MGVCL, UGVCL and DCVCL in proportion to the respective percentage share in the agricultural consumption and accordingly the share of PGVCL has been worked out to Rs. 401.00 crore as detailed in the table below:

Table 6.85: Subsidy for FY 2011-12

(Rs. crore)

Particulars	FY 2011-12
% share in unmetered agriculture sales	36.45%
Share of agriculture subsidy	401.00

Commission's Analysis

The Commission has computed the agricultural consumption inrespect of PGVCL against the total agricultural consumption approved for all the four DISCOMs for the control period. Based on the share of PGVCL's agricultural consumption the agricultural subsidy for PGVCL is computed as detailed in the table below:

Table 6.86: Approved agricultural susbsidy for FY 2011-12

DISCOM	Agriculture Sales (MU)	% Share of sales	Agriculture subsidy (Rs. crore)
DGVCL	597	4.37	48
MGVCL	944	6.91	76
PGVCL	4910	35.94	395
UGVCL	7211	52.78	581
Total	**13662**	**100.00**	**1100**

6.14 Total revenue for the control period FY 2011-12 to 2015-16

The total expected revenue for PGVCL comprises of revenue from sale of power at existing tariff, other consumer related income, agriculture subsidy and other subsidies.

The total revenue as estimated by the Commission for the control period FY 2011-12 to FY 2015-16 is shown in the table below:

Table 6.87: Revenue from existing tariff for FY 2011-12 to 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)
	LT consumers											
1	Domestic	3.06	2581	789.79	2824	864.14	3089	945.23	3380	1034.28	3697	1131.28
2	Commercial	4.81	1049	504.57	1189	571.91	1348	648.39	1529	735.45	1733	833.57
3	Industrial - LT	4.56	1436	654.82	1536	700.42	1643	749.21	1757	801.19	1879	856.82
4	Public Water works	2.65	364	96.46	400	106.00	438	116.07	480	127.20	526	139.39
5	Agriculture	1.03	4910	505.73	5025	517.58	5139	529.32	5253	541.06	5367	552.80
6	Public lighting	3.35	82	27.47	88	29.48	95	31.83	102	34.17	110	36.85
	LT Total (A)		**10422**	**2578.83**	**11062**	**2789.52**	**11752**	**3020.04**	**12501**	**3273.35**	**13312**	**3550.72**
	HT consumers											
7	Industrial - HT	4.69	4099	1922.43	4235	1986.22	4376	2052.34	4522	2120.82	4677	2193.51
8	Railways			0.00		0.00		0.00		0.00		0.00
	HT Total (B)		**4099**	**1922.43**	**4235**	**1986**	**4376**	**2052**	**4522**	**2121**	**4677**	**2194**
9	**Sub Total**		**14521**	**4501.26**	**15297**	**4776**	**16128**	**5072**	**17023**	**5394**	**17989**	**5744**
10	FPPPA	0.61		885.78		933.12		983.81		1038.40		1097.33
11	Add: Other income (consumer related)			124.00		124.00		124.00		124.00		124.00
12	**Total**			**5511.04**		**5832.86**		**6180.19**		**6556.57**		**6965.56**
13	**Add: Agriculture subsidy**			395		397		399		402		405
14	**Total revenue including agriculture subsidy**			**5906.04**		**6229.86**		**6579.19**		**6958.57**		**7370.56**

6.15 Determination of differential Bulk Supply Tariff

As discussed in the paragraph 6.8.10, it would be possible to ensure uniform retail consumer tariffs in the four DISCOMs by adopting Bulk Supply Tariff methodology.

The BST for DISCOMs includes the cost of power purchase from various generating stations, the transmission costs of PGCIL and GETCO and the cost of bulk supplier i.e. GUVNL. The revenue earned from sale of surplus power is subtracted from the total power purchase cost to arrive at net power purchase cost to be charged to the four DISCOMs. The amount available for power purchase to the four DISCOMs is arrived at by subtracting the sum of total expenses other than the power purchase cost of all the four DISCOMs from the total revenue of the four DISCOMs with existing tariffs.

The difference between the net power purchase cost and the amount available with the four DISCOMs for power purchase indicates the revenue gap. This revenue gap varies from Discom to Discom. The bulk supply tariffs for the four DISCOMs are fixed keeping in view the magnitude of the revenue gap as discussed further to the following paragraphs.

6.15.1 Aggregate amount available with the four DISCOMs for Power Purchase

The difference between the total revenues and the total expenses other than power purchase incurred by the four DISCOMs indicates the amount available for power purchase with the DISCOMs as shown below:

Table 6.88 : Aggregate Revenue available for power purchase from 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
Total Revenue of DISCOM : (A)					
DGVCL	4968.03	5273.41	5599.16	5945.16	6314.32
MGVCL	3316.92	3615.92	3941.53	4299.40	4690.36
PGVCL	5906.04	6229.86	6579.19	6958.57	7370.56
UGVCL	5157.34	5617.42	6144.92	6752.95	7454.80
Total Revenue	**19348.33**	**20736.61**	**22264.81**	**23956.08**	**25830.04**
Expenditure other than Power Purchase : (B)					
DGVCL	347.09	373.89	396.39	420.46	450.10
MGVCL	418.80	442.73	465.31	487.23	514.87
PGVCL	935.22	1,053.42	1,201.73	1,344.21	1,470.35
UGVCL	573.59	627.53	676.79	724.86	780.98
Total Expenditure	**2,274.70**	**2,497.56**	**2,740.22**	**2,976.77**	**3,216.30**
Aggregate Amount Available with the DISCOM for Power Purchase : (A-B)					
DGVCL	4620.94	4899.52	5202.77	5524.70	5864.22
MGVCL	2898.11	3173.19	3476.22	3812.17	4175.48
PGVCL	4970.82	5176.44	5377.46	5614.36	5900.21
UGVCL	4583.75	4989.90	5468.13	6028.08	6673.82
Total Amount available for Power Purchase	**17073.63**	**18239.05**	**19524.58**	**20979.31**	**22613.74**

6.15.2 Calculation of Gap

The difference between the net power purchase cost and the aggregate amount available for power purchase represents the gap. The gap is as shown below:

Table 6.89 : Revenue Gap from 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
Total Power Purchase Cost (A)	17680.3	20434.03	22718.4	24295.43	27710.36
Aggregate Amount available for Power Purchase (B)	17073.63	18239.05	19524.58	20979.31	22613.74
Gap (A-B)	**606.67**	**2194.98**	**3193.82**	**3316.12**	**5096.62**

6.15.3 Allocation of Gap

The gap calculated above has been allocated among the various DISCOMs in the ratio of the energy sale (MU) of the respective companies to the sector total energy sale (MU). The percentage of sales of each DISCOM and the gap allocation for each DISCOM are given in the following tables.

Table 6.90: Energy requirement and percentage of energy requirement

Year	Energy requirement					Percentage of Energy requirement			
	DGVCL	MGVCL	PGVCL	UGVCL	Total	DGVCL	MGVCL	PGVCL	UGVCL
FY 2011-12	12371	8659	21694	17375	60099	20.58%	14.41%	36.10%	28.91%
FY 2012-13	13241	9447	22286	18548	63522	20.84%	14.87%	35.08%	29.20%
FY 2013-14	14053	10304	23063	19841	67261	20.89%	15.32%	34.29%	29.50%
FY 2014-15	14938	11213	23881	21343	71375	20.93%	15.71%	33.46%	29.90%
FY 2015-16	15928	12219	24901	22932	75980	20.96%	16.08%	32.77%	30.18%

Table 6.91 : Allocation of Gap from FY 2011-12 to FY 2015-16

(Rs. crore)

Allocation of Gap for FY 2011-12

Details	DGVCL	MGVCL	PGVCL	UGVCL
Total Gap for the year	606.67			
Ratio of Allocation of Gap	20.58%	14.41%	36.10%	28.91%
Gap Allocated	**124.88**	**87.41**	**218.99**	**175.39**

Allocation of Gap for FY 2012-13

Details	DGVCL	MGVCL	PGVCL	UGVCL
Total Gap for the year	2194.98			
Ratio of Allocation of Gap	20.84%	14.87%	35.08%	29.20%
Gap Allocated	**457.54**	**326.44**	**770.09**	**640.92**

Allocation of Gap for FY 2013-14

Details	DGVCL	MGVCL	PGVCL	UGVCL
Total Gap for the year	3193.82			
Ratio of Allocation of Gap	20.89%	15.32%	34.29%	29.50%
Gap Allocated	**667.29**	**489.27**	**1095.12**	**942.13**

Allocation of Gap (Rs Crores) 2014-15

Details	DGVCL	MGVCL	PGVCL	UGVCL
Total Gap for the year	3316.12			
Ratio of Allocation of Gap	20.93%	15.71%	33.46%	29.90%
Gap Allocated	**694.03**	**520.96**	**1109.52**	**991.61**

Allocation of Gap for FY 2015-16

Details	DGVCL	MGVCL	PGVCL	UGVCL
Total Gap for the year	5096.62			
Ratio of Allocation of Gap	20.96%	16.08%	32.77%	30.18%
Gap Allocated	**1068.43**	**819.63**	**1670.32**	**1538.24**

6.15.4. Bulk Supply Tariff

The allocated gap amount of each DISCOM has been added to the amount available for power purchase for that DISCOM and this amount has been divided by the number of units projected to be purchased by the DISCOM to arrive at BST at Rs/kWh. The details are given below:

Table 6.92 : Bulk Supply Tariff

(Rs. crore)

Bulk Supply Tariff : 2011-12	**DGVCL**	**MGVCL**	**PGVCL**	**UGVCL**
Amount available for Power Purchase	4620.94	2898.11	4970.82	4583.75
Gap Allocated	124.88	87.41	218.99	175.39
Power Purchase Cost for DISCOM	4745.82	2985.52	5189.81	4759.15
Energy Purchased by DISCOM	12371	8659	21694	17375
Bulk Supply Tariff (Rs/KWh)	**3.84**	**3.45**	**2.39**	**2.74**

Bulk Supply Tariff : 2012-13	**DGVCL**	**MGVCL**	**PGVCL**	**UGVCL**
Amount available for Power Purchase	4899.52	3173.19	5176.44	4989.90
Gap Allocated	457.54	326.44	770.09	640.92
Power Purchase Cost for DISCOM	5357.06	3499.63	5946.52	5630.82
Energy Purchased by DISCOM	13241	9447	22286	18548
Bulk Supply Tariff (Rs/KWh)	**4.05**	**3.70**	**2.67**	**3.04**

Bulk Supply Tariff : 2013-14	**DGVCL**	**MGVCL**	**PGVCL**	**UGVCL**
Amount available for Power Purchase	5202.77	3476.22	5377.46	5468.13
Gap Allocated	667.29	489.27	1095.12	942.13
Power Purchase Cost for DISCOM	5870.06	3965.49	6472.59	6410.26
Energy Purchased by DISCOM	14053	10304	23063	19841
Bulk Supply Tariff (Rs/KWh)	**4.18**	**3.85**	**2.81**	**3.23**

Bulk Supply Tariff : 2014-15	**DGVCL**	**MGVCL**	**PGVCL**	**UGVCL**
Amount available for Power Purchase	5524.70	3812.17	5614.36	6028.08
Gap Allocated	694.03	520.96	1109.52	991.61
Power Purchase Cost for DISCOM	6218.73	4333.13	6723.88	7019.69
Energy Purchased by DISCOM	14938	11213	23881	21343
Bulk Supply Tariff (Rs/KWh)	**4.16**	**3.86**	**2.82**	**3.29**

Bulk Supply Tariff : 2015-16	**DGVCL**	**MGVCL**	**PGVCL**	**UGVCL**
Amount available for Power Purchase	5864.22	4175.48	5900.21	6673.82
Gap Allocated	1068.43	819.63	1670.32	1538.24
Power Purchase Cost for DISCOM	6932.65	4995.11	7570.53	8212.06
Energy Purchased by DISCOM	15928	12219	24901	22932
Bulk Supply Tariff (Rs/KWh)	**4.35**	**4.09**	**3.04**	**3.58**

6.16. ARR for the control period FY 2011-12 to 2015-16

6.16.1. The Table below shows approval of Aggregate Revenue Requirement including power purchase cost of PGVCL for the control period FY 2011-12 to 2015-16.

Table 6.93 : ARR approved by the commission from FY 2011-12 to FY 2015-16

(Rs. crore)

Sl. No.	Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
1	Cost of Power Purchase	**5189.81**	**5946.52**	**6472.59**	**6723.88**	**7570.53**
2	Operation & Maintenance Expenses	549.80	581.25	614.50	649.64	686.80
2.1	Employee Cost	391.28	413.67	437.33	462.34	488.79
2.2	Repair & Maintenance	84.17	88.98	94.07	99.45	105.14
2.3	Administration & General Charges	74.35	78.60	83.10	87.85	92.88
2.4	Other Debits	7.16	7.16	7.16	7.16	7.16
2.5	Extraordinary Items	0.00	0.00	0.00	0.00	0.00
2.6	Net Prior Period Expenses / (Income)	0.00	0.00	0.00	0.00	0.00
2.7	Other Expenses Capitalised	(111.00)	(118.00)	(124.00)	(131.00)	(139.00)
3	Depreciation	284.74	332.59	392.20	451.45	506.46
4	Interest & Finance Charges	127.41	142.47	164.31	180.68	187.95
5	Interest on Working Capital	0.00	0.00	0.00	0.00	0.00
6	Provision for Bad Debts	8.58	8.58	8.58	8.58	8.58
7	**Sub-Total [1 to 6]**	**6056.50**	**6900.57**	**7535.33**	**7890.39**	**8828.49**
8	Return on Equity	195.40	226.24	265.86	304.57	339.26
9	Provision for Tax / Tax Paid	15.24	15.24	15.24	15.24	15.24
10	**Total Expenditure (7 to 9)**	**6267.14**	**7142.05**	**7816.43**	**8210.20**	**9182.99**
11	Less: Non-Tariff Income	142.11	142.11	142.11	142.11	142.11

12	**Aggregate Revenue Requirement (10 - 11)**	**6125.03**	**6999.94**	**7674.32**	**8068.09**	**9040.88**

6.17. Estimated Revenue Gap for FY 2011-12 for PGVCL

6.17.1. Based on the above, the estimated revenue gap for FY 2011-12 at existing tariff is as outlined in the table below:

Table 6.94: Estimated Revenue Gap for FY 2011-12 at Existing Tariff for PGVCL

(Rs. crore)

S No.	Particulars	Projected by PGVCL	Approved by the Commission
1	Aggregate revenue requirement	6434.00	6125.03
2	Revenue gap from True up of FY 2009-10	60.00	-
3	**Total Aggregae Revenue Requirement**	**6495**	**6125.03**
4	Revenue with existing tariff	4529.00	4501.26
5	PPPA charges @ 61 paisa/kWH	901.00	885.78
6	Other income (Consumer related)	124.00	124.00
7	Agriculture Subsidy	401	395.00
8	**Total revenue including subsidy**	**5955.00**	**5906.04**
9	**Gap(3-8)**	**539.00**	**218.99**

7. Compliance of Directives

7.1 Compliance of earlier Directives

The Commission, in its tariff order dated 31st March, 2010, had issued various directives to PGVCL, which has submitted a compliance report on the directives issued in the current petitions for approval of ARR for the control period FY 2011-12 to FY 2015-16 and determination of tariff for FY 2011-12.

The Commission's comments on the status of compliance of the directives by PGVCL are given below. The Commission has also issued fresh directives to the licensee, wherever required.

Directive 1: Consumption by agricultural pump sets

A realistic consumption by agricultural pump-sets could be obtained only by providing meters at distribution transformers and properly noting LT losses on the LT network under the distribution transformers.

The Commission notes that the Petitioner has been able to provide meters only to 7799 agricultural transformers out of a total 71644. Thus progress on the same is very poor. The petitioner should expedite the metering process and complete the same by December 2010.

Further, the Petitioner is directed to expedite the study and to share the detailed approach and methodology with the Commission.

Compliance:

Status of feeder level, DTC level and Agriculture consumer level metering:

Sl. No.	Description	Meters Provided	% Completed
1.	11KV/22 KV Feeders :	4031	100%.
2.	Total Distribution Transformers: 1,99,623 Nos.	50206	26.33%
3.	Distribution Transformer Agriculture Category: **138690 nos.**	11405	8.22%
4.	AG. Consumers		40.62%

Since providing meters at Distribution Transformer level has been expedited. Working of LT Line losses etc. can be carried out for such Distribution Transformers if all consumers are metered. However, Company has given consultancy services to M/S Feedback ventures Pvt. Ltd. for working out the assessment of consumption by unmetered Agriculture consumption. The Commission has been requested for giving suitable time for presenting the norm/ methodology prepared by M/s Feedback Ventures Limited.

Commission's comments

Comments on the study conducted will be communicated separately. To work out LT line losses, the agricultural consumers need not be metered. The LT lines loss to be workedout considering the line lengths and power flow on the lines. If the agricultural services are metered, the consumption by pump sets could be directly arrived at. Wherever distribution transformers are metered, the LT line losses may be computed.

Directive 2: Energy Audit

The PGVCL shall intensify the energy audit in urban areas where there is scope for reduction and the results could be obtained quickly. The loss reduction in Bhavanagar and Rajkot is very marginal. Even without GIS, Energy Audit has given good results elsewhere. Considering distribution transformers and the services fed by transformers, the company shall take up Energy Audit in all urban areas without waiting for GIS. The Commission has noted that progress on the Energy Audit of urban areas needs to be expedited. The results of the pilot project need to be quickly analyzed and applied to all other sub-divisions.

Compliance:

Energy Audit is required in urban areas where comparative distribution loss level is low and precision in identifying theft prone area/ consumer is required. Results of pilot projects have been analysed. However, taking into account the fact, it is planned to cover all 36 towns having more than 30, 000 Population for energy audit under our R-APRDRP Program.

Almost 16000 nos. of Distribution Transformers supplying power supply to 36 towns shall be provided with the communicable type of meters. Information of such meters shall be downloaded at Central Server provided at "Data Center". Consumption record of 15 lakh consumers of above town shall also be available at "Data Center" and, thereby, Energy Audit shall be carried out. Entire activity shall be completed by June, 2011.

Commission's comments

The present status of energy audit in the 36 towns shall be expedited. Wherever the work is completed, the results shall be reported to the Commission and action proposed to be taken for reduction of losses in these towns shall be reported to the Commission.

Directive 3: Distribution Loss

The PGVCL shall provide a comprehensive loss reduction program along with definite timelines aimed at reducing commercial and technical losses. The scope of such a program needs to be wide enough to ensure substantial loss reduction. Special emphasis shall be given in reducing JGY feeder losses.

Compliance:

Feeder category wise Distribution Loss of PGVCL for the first half of the FY2010-11 vis-à-vis FY 2009-10 is given here under.

Sl. No.	Feeder Category	% Loss as on March, 2010	% Loss as on September, 2010	Difference
1.	H.T. Express	2.24%	1.65%	-0.59%
2.	G.I.D.C.	2.92%	2.29%	-0.63%
3.	Industrial	2.97%	1.45%	-1.52%
4.	Urban	22.46%	19.84%	-2.62%
5.	JGY	56.22%	52.84%	-3.38%
6.	Agriculture Dominant	44.01%	17.91%	-26.10%
7.	Over All	34.38%	22.62%	-10.09%

It can be visualized that Distribution Loss of the Company is highly influenced by the loss of Agriculture category. During the current year due to good rainfall, losses of this category have reduced to 26.1%. However, considerable loss reduction can be observed in other than Agriculture category too. Since the loss level of Agriculture category is not maintainable throughout the year, Company expects that at the end of the year over all Distribution loss would be around 29.5%.

Moreover various activities carried out for reduction of Technical Loss and Commercial Loss during the year 2009-10 and upto Seprtmber'10 is given here under.

Technical Loss Reductive Activities			
Particulars		**2009-10**	**2010 upto September 2010**
Feeder Bifurcation	No.	247	132
Dist. Transformer Center Review	No.	504	138
Conductor Replacement	KM	5467	1540
Replacement of deteriorated conductor	in KM	3102	1015.30
Providing of ABCabel	in KM	515	779.78
Providing of Insulated Conductor	in KM	1999	908.01

Commercial Loss Reductive Commercial Activities				
Particulars			**2009-10**	**2010 upto Sep.' 10**
Meter Replaced	1-phase	No.	249062	74311
	3-phase	No.	23981	10421
MMB Provided	1-phase	No.	228392	76690
	3-phase	No.	24127	10088
Sealing Done	1-phase	No.	335643	126434
	3-phase	No.	42103	16791
Wrapped Meter Inspected	1-phase	No.	319084	89987
	3-phase	No.	30815	11283
Installation Checking	checked	No.	1074176	422334

Keeping the track of reduction into account and other factors, Distribution loss reduction trajectory for the further five years period has been proposed accordingly and is given hereunder.

Year	**2010-11**	**2011-12**	**2012-13**	**2013-14**	**2014-15**	**2015-16**
Dist. Loss	29.50%	29.00%	27.00%	25.50%	24%	23%
Proposed Reduction	0.500%	2.00%	1.50%	1.50%	1.00%	1.00%

Since the loss level of Agriculture Category is highly depend on hours of power supply, while deciding target level of 8 hours of power supply is assumed for the control period.

Commission's comments

It is observed that JGY feeder losses are very high. PGVCL shall investigate the reasons for such high losses. It may be commercial losses. Steps shall be taken to replace bear conductors with insulated / AB cables and also replace the old electro *magnetic meters with static meters. Action taken to reduce the losses shall be reported quarterly.*

Directive 4: Jyotigram Feeder loss

Jyotigram is a laudable scheme; important measures such as providing aerial bunched cables, implementing high voltage distribution, curbing tapping of lines, replacement of old meters etc. shall be undertaken in a planned manner to reduce loss. The commission has taken note of the various measures undertaken by the Petitioner to curb JGY losses. However, the Commission is concerned that at almost 60%, the loss level is still very high. The Commission directs the Petitioner to target an annual reduction of at lease 10% in the loss level.

Compliance:

Distribution loss of JGY Feeder:

Sl. No.	Feeder Category	Unit sent out [MU]	Unit sold out [MU]	% Loss
1.	2007-08	3248.889	1109.833	65.80
2.	2008-09	3333.163	1343.145	59.70
3.	2009-10	3461.68	1515.37	56.22
4.	2010-11 (Up to Sep '10)	1898.24	895.19	52.84

PGVCL covers large rural areas of the state and contribution of JGY category loss in overall loss is also significant. Therefore, Company has taken task in phased manner selecting high loss JGY feeders for taking corrective action. Activities carried out by the Company are furnished here under.

Sl. No.	Particular		Phase -1	Phase -2	Phase -3	Phase -4	Total
1.	No of Feeders		176	213	190	209	788
2.	No of Village		1571	1614	1154	132	4471
3.	Meter provided on No of T/C		4682	4813	3186	2157	14838
4.	11kv Crossing removal		2333	2707	1929	767	7736
5.	Old/defective Meter replacement	1Ph	114428	121600	78840	40755	355623
		3Ph	2644	2096	1050	751	6541
6.	Cumm. MMB Provided	1Ph	104131	115508	70171	36840	326650
		3Ph	1866	1737	864	588	5055
7.	Cumm. Sealing done	1Ph	142196	148847	92206	49657	432906
		3Ph	2709	2223.15	1142	780	6854.15
8.	Cumm. Coated Conductor to be		3438.18	4673.133	4056.402	2142	14309.72

Sl. No.	Particular	Phase -1	Phase -2	Phase -3	Phase -4	Total
	provided in LT line					
9.	LT line to be provided where no 3ph conn	35035	453.1	954.401	121	1878.851
10.	Deaugmentation of Village Transformer	990	714	347	228	2279
11.	Nos of Drive carried out	1961	1614	2550	1588	7713
12.	Details of Application Received for new Conn	50650	35446	24236	16848	127180
13.	Nos. of connection released	49848	33539	23281	16631	123299
14.	No. of consumers for which H-3 form is submitted	49756	33219	22927	16656	122458
15.	No. of consumers created	49728	33189	22908	16530	122355

Taking into account the area constraints, available resources and past trend, Company has planned to reduce further 5% during the current financial year.

Commission's comments

The measures suggested should have brought down the losses drastically. The results given are very discouraging. Special attention has to be paid to implement HVDS, replacing open wires with AB cables / insulated wires and replacement of meters. These have given very good results elsewhere.

Directive 5: Effective Metering, Billing and Revenue Collection

The effort to replace old meters with static meters has been noted. Handheld meter reading instruments shall be introduced, if not already done, to take meter readings, generate bills and deliver them to the consumer on the spot. This will eliminate human error to some extent and also improve revenue realization. Spot billing with handheld machines is to be implemented. A report may be submitted to the Commission by June 2009. The compliance by the petitioner on this directive is noted. However, it is directed to submit the report at the earliest.

Compliance:

Providing quality/ static meters replacing old electromechanical meter is prime agenda of the Company towards accurate and efficient metering. Planning for replacement during the Control Period and replaced during FY 09-10 and FY 10-11 vis-à-vis planning for respective years is given under compliance to Directive 3 of Fresh Directives and reply regarding Billing and Revenue collection is given under compliance to Directive 1 of fresh directives.

Commission's comments

The measures taken under directive 1 and 3 are not satisfactory. The comments under directive 1 and directive 3 shall be implemented and reported.

Directive 6: Cent percent metering

Consumers may be convinced of the need for energy accounting by the utility and the provision of metering for the remaining unmetered services may be expedited. The Commission has noted the poor progress on metering of agricultural consumers. 100% metering is crucial for proper energy accounting, determination of extra cost of supply and determination of subsidy. The Commission directs the petitioner to improve the status of metering of agricultural consumers.

Compliance:

Company sets high target for releasing the new connections. Even in Agricultural Category Company has released more than 20000 nos. of connection every year in last three years. All Connections are released with meter only, which improves metering ratio of the Company. Further, Company has planned to release 28000 Nos. of Agriculture connections for each year of Control Period.

On the other hand company replaces old / none working/ defective electro mechanical meters by quality electronic/ static meter which helps Company in improving metering efficiency.

Further PGVCL provides meter at Distribution Transformer Level. Out of 1, 90,623 nos. of Distribution Transformers metes at 50206 nos. of DTCs have been provided. DTC level metering is @ 26.33 %.

Distribution transformers providing power supply to agriculture consumers are 1,38,690 nos. Out of that 11405 Nos. have been provided with the meter.

Thus DTC level metering is @ 8.22%.

Moreover, approximately 25,000 nos. of Distribution Transformer supplies power to exclusively metered Agriculture Consumers and are almost LT Less. Thus separate DTC level metering is not required. Therefore, considering the fact the Overall DTC level metering is 39.45% and particularly AG Category DTC metering is 26.25%. Status of metering is given in the following table.

Sl. No.	Description	Meters Provided	% Completed
1.	11KV/22 KV Feeders :	4031	100%.
2.	Total Distribution Transformers: **1, 90, 623 nos.**	50206	26.33%
3.	Distribution Transformer Agriculture Category: **138690 nos.**	11405	8.22%
4.	AG. Consumers		40.62%

However, company will put forth all out efforts to provide the meter to unmetered consumers.

Commission's comments

The meters have been provided for 40.62% of services. The metering of balance connections shall be expedited. Metering of distribution transformers feeding agricultural consumers shall be expedited.

Directive 7: Distribution Transformer Failure

The failure rate of distribution transformer is still high. Efforts should be made to bring down the transformer failure to less than 10%. The Commission notes that the failure rate is still very high and the Petitioner has not been able to meet the target of less than 10% failure rate. The Commission directs the petitioner to step up efforts to reduce the failure rate.

Compliance:

Year	Total Nos. of Transformer	Nos. of Failed Transformers	% failure
2006-07	113451	27429	24.18%
2007-08	127226	27430	21.56%
2008-09	148127	29317	19.79%
2009-10	177135	30633	17.29%
2010 -11 Ist half	188079	18183	9.67%

Efforts under taken by the Company for reducing Distribution Transformer failure rate by way of stringent maintenance, reviewing loading of existing Distribution Transformer Center under System Improvement Scheme etc. and adopting High Voltage Distribution System particularly for Agriculture Category of consumers has helped in reducing the Distribution Transformer failure rate.

It can be visualized that Distribution Transformer failure rate which was to the tune of 24.18% has reduced and at the end of 1st half of 2010 -11 it is 9.67%. Our endeavors are in the direction to reduce the Distribution Transformer Failure rate further and at the end of year to the level of 17%.

Commission's comments

Reduction of distribution transformer failures is not satisfatory. The transformers failure shall be brought down to less than 10%.

Directive 8: Allocation of PPAs

The utilities are directed to firm up the allocation of PPAs.

Compliance:

Distribution Companies are allocated their PPAs from 5th April, 2010. PPA allocation is reviewed and revised as and when new capacity addition is there or based on the requirement of the Discoms.

Since paying capacity of four distribution companies is different on account of different consumer mix and load, permanent allocation of PPA may distort the requirement of ARR and consequently tariffs. Therefore, PPA allocation shall be a dynamic exercise in which allocation will undergo changed very frequently. Hence, in the tariff petitions, power purchase cost is allocated by GUVNL out of the total pooled power purchase cost and not any PPA specific.

Commission's comments

The GUVNL is now procuring power from various sources and supplying power in bulk to DISCOMs at different Bulk Supply tariff to ensure uniform retail supply tariff in all the DISCOMs.

Directive 9: Internal Processes and Procedures for Timely Meter Reading

PGVCL shall provide details of the internal processes and procedures which are put in place to ensure that meter readers read the meters on time. It shall also provide the details of the process followed to correct any discrepancies found any.

Compliance:

Existing system:

In PGVCL, meter reading of the consumers for billing purpose is done through outsourcing as well as departmentally.

Major Cities, District places etc. are covered under outsourcing where consumer's density is high. Stringent penalty condition has been laid in the Order given to Outsourced agency in case of delay in billing.

For remaining areas, where billing through departmental employees is being made, the close monitoring being done as under.

In our present system, meter reader wise, data of nos. of consumers are available.

On the basis of data available as above, all the sub divisions do advance planning by preparing meter Reading Programme for timely completion of Billing.

The entire billing programme is closely monitored by sub division in-charge on day to day basis, moreover the division Office as well the circle office keep watch on the billing programme of all the sub-divisions. Also gross monitoring is being done from Corporate Level. Generally billing periodicity is maintained as large numbers of consumers are billed on bi-monthly basis. It is also to state that our CGL i.e. basic consolidate MIS for billing and accounting document is being consolidated at Corporate level every month in time by which we can monitor over billing timing. In fact, our collection efficiency has improved and Debit Arrears has reduced, which indicates that consumers are paying bills timely without grievance.

Advance stages, we are going for billing:

Photo Billing:-Meter reading through digital camera has been implemented on trial basis in one of the division and it has been successfully completed. Photo billing will facilitate in making the billing activity speedier and improving the collection by providing error free bills.

Automatic Meter Reading:- In order to monitor energy/demand parameters remotely and for fast billing of valued consumers, AMR connection have been provided under below mentioned categories

Total EHT/HT connection: 2480

LT connections with AMR: 2440

Mobile based meter reading with blue tooth based printer: - Proposal has also been moved to carry out meter reading through mobile. Spot billing will be done using mobile and using GPRS. Printing will be done on the spot using Bluetooth Printer.

Commission's comments

The measures taken to improve the meter reading and billing are noted. It is stated that by these measures the revenue realization has gone up. A report on percentage revenue realized earlier and at present, both in out sourced areas and areas where meter reading is being done by department shall be reported by December, 2011.

Directive 10: Reduction of Commercial and Technical Loss

Replied as per directive 3 above.

Commission's comments

As commented under directive 3, the distribution loss levels are very high. PGVCL shall implement introduction of HVDC, replacing the open wire with AB cables / insulated wires etc. and replacement of old meters with static meters to reduce the losses.

Directive 11: Number of Old Meters to be Replaced

The PGVCL is henceforth directed to submit in advance, the number of old meters it plans to replace in every ARR petition. Subsequently in the APR petition for that year, it shall also submit the details of actual meters replaced vis-à-vis the target.

Compliance:

The PGVCL had submitted Circle wise planning for replacement of meters during the FY 2010-11 while submitting the compliance to the Directives. Accordingly, PGVCL had submitted that it will replace 319629 nos. of meters during the year 2010-11. As a part of meter replacement exercise, PGVCL has, at the end of 1st half, replaced 74311 nos. of Single Phase and 10421 nos. of three phase meters. Since the availability of the meters was limited during the current year target for replacements have been revised and accordingly Company proposes to replace 2.6 lakh Single Phase Meter and 25,000 three phase meter during the current year.

Planning for replacement of meter during the control period:

Sl. No.	Year	Single Phase	Three Phase
1.	2011-12	3.5 lakh	25000
2.	2012-13	3.5 lakh	25000
3.	2013-14	3.5 lakh	23000
4.	2014-15	3.5 lakh	23000
5.	2015-16	3.5 lakh	23000

Commission's comments

The replacement of meters as planned shall be implemented. Quarterly report shall be submitted from on the implementation.

Directive 12: Theft Cases and Penal Action Taken

The PGVCL is directed to submit details of number of theft cases reported and status of penal action taken in its petition. Further, it shall also submit the total amount recovered from such consumers.

Compliance:

Information regarding nos. of theft cased detected, offence compounded, FIR lodged, Amount Assessed and Amount Realized is given here under.

Sl. No.	Year	Nos. of cases detected under Theft	Nos. of Cases Compounded	Nos. of Cases FIR Lodged	Amount Assessed under Theft and Unauthorized use (Rs. Crore)	Amount Realized (Rs. Crore)
1.	2008-09	42451	32581	8630	47.19	23.10
2.	2009-10	38683	26507	5721	42.66	21.18
3.	2010-11 (Up to Sep '10)	15201	8352	2254	23.20	13.35

It is further to inform that assessment made under the head "theft" and unauthorized use of energy is accounted on accrual basis under the head "Other Income" and it is a part of Revenue.

Commission's comments

The inspection shall be intensified and quarterly reports shall be submitted from December, 2011.

Directive 13: Financial Figures in Crores

The PGVCL is directed to submit all financial figures in its future ARR and APR petitions in units of rupees crore.

Compliance:

Directive of Commission is noted and petition is submitted accordingly.

Commission's comments

Compliance is noted.

Directive 14: O&M Expenses Estimation

The PGVCL is directed to include estimated expenses of the following items if the ARR into O&M expenses.

- Other Debits
- Extra ordinary items
- Net Prior period Expense/(income)
- Other Expenses Capitalized.

Compliance:

Directive of Commission is noted and petition is submitted accordingly.

Commission's comments

Compliance is noted.

Directive 15: Depreciation Calculation

The PGVCL has calculated the depreciation by applying the new rates on the total gross assets without segregating the assets as mentioned in Clause 17 of CERC (Terms and Conditions of Tariff) Regulations, 2009. It is directed to us to submit the recomputed depreciation as per clause no. during the truing-up of FY 2009-10 and thereafter.

Compliance:

In compliances to the above directive it is to clarify that Clause 17 point 4 of CERC (Terms and Conditions of Tariff) Regulations, 2009 stipulates as under: *"The* *depreciation is to be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission systems".*

Further it is provided that *"The remaining depreciable value as on 31st March of the year closing after a period of 12 years from the date of commercial operations shall be spread over the balance useful life of the assets."*

In this regard it is to state that, at the time of unbundling of erstwhile Gujarat Electricity Board Hon'ble Government of Gujarat had issued a Notification of transfer scheme where in the Government had vested assets to PGVCL and thereafter also notified opening balance-sheet mentioning the gross values of such assets and accumulated depreciation.

Thus as per the notification of Government of Gujarat, asset-wise details which have completed a period of 12 years from the date of commercial operation, gross value, cumulative depreciation was not specified. So the exact details as per clause No.17 of CERC (Terms and Conditions of Tariff) Regulations, 2009 cannot be made available.

The PGVCL has started commercial operation w.e.f. 1st April, 2005. For Aggregate Revenue Requirement petition filing, PGVCL has provided depreciation at the rates notified by CERC/GERC applicable from time to time. Under the circumstances, the methodology of computing depreciation in line with the directive issued by the Hon'ble commission would be as under:

The depreciation has to be provided up to a period of 12 years on block of assets which have been added in the asset-grouping after 01.04.2005 and thereafter the remaining depreciation will be on the balance useful life of the assets. In case of existing projects, the balance depreciable value after 12 years from 01.04.2005 will be worked out after deducting cumulative depreciation claimed till 31.03.2017 and will be spread on the balance useful life of the assets.

Therefore, the Hon'ble commission is requested to allow PGVCL to compute the depreciation at rates notified by regulations and to provide it upto a period of 12 years from 01/04/2005 and thereafter to workout the depreciation on the balance useful life of the assets.

Commission's comments

The proposed computation is accepted.

Directive 16: Segregation of total loans

The PGVCL is directed to segregate the total loans between loans utilized for financing the working capital and loans used for incurring capital expenditure in future petitions.

Compliance:

The said directive is noted and in next ARR same will be included accordingly.

Commission's comments

Compliance is noted.

Directive 17: Long pending list of Agriculture connections

Compliance to the comments of Commission on the reply given by the Company to the respondent of petition no. 995/2010: -

Year wise pending list of Agriculture application is attached herewith, status as on May, 2010.

More than 2.80 lakh nos. of applications are pending, it is very difficult to draw out program for releasing of connection as it involves heavy Capital Expenditure besides increased level of burden on state exchequer.

Connections released during last five years based on Company's ability to spend and within available resources and applications received during last five years is given here under.

Year	Nos. of Pending Applications at beginning of the year	Connections released during the year	Applications received during the year	Net Applications pending at the end of the year.
2005-06	188583	11016	17478	195045
2006-07	195045	7613	20392	207824
2007-08	207824	24962	47430	230292
2008-09	230292	23014	41528	248806
2009-10	248806	24147	55841	280500

It can be visualized that every year almost double applications have been received than connections released. However, based on Company's ability for Capital Expenditure and based on available resources Company has planned to release 28000 nos. of Agriculture Connection for each year of Control Period.

Commission's comments

The pending applications are very large. The DISCOM shall explore the means of providing connections to the pending applicants early. This may be discussed with consumers if necessary to share part of the expenditure.

7.2 Fresh Directives

Directive 1: Category-wise cost-to-serve (Cost of supply)

Some of the stakeholders pointed out that the DISCOMs have not implemented the category-wise cost-to-serve as required under, section 61 of the Electricity Act, 2003. The DISCOM has submitted that the cost to serve report for FY 2009-10 is under preparation.

The DISCOM is directed to submit the report on category-wise, cost-to-serve report by November, 2011.

Directive 2: Poor quality of supply and poor voltages

Some of the stakeholders have complained during the public hearing and also in written submission that quality of supply and the voltages are poor, particularly, in the case of power supply to agricultural consumers.

The DISCOM is directed to ensure quality power supply with proper voltages to all categories of consumers particularly to consumers at tail end of feeders by providing required reactive compensation etc.

Directive 3: L&T Meters

While responding to a complaint by some of the stakeholders during the public hearing and through written submission on the functioning of L&T meters, the DISCOM has responded that the issue is 'sub-judice'. The DISCOM is directed to submit the report on the nature of complaint by the consumers and the present status of the case.

Directive 4: Interest on Capital investment for agricultural connections / extension

Some of the stakeholders have suggested that the State Government shall be asked to bear the burden of interest on capital investment on agricultural extensions and connections.

The DISCOM is directed to submit a report on the sources of funding for the extension of supply to agricultural consumers and service connections, and the costs and the interest on such investments, and how the interest on such investments is treated.

Directive 5: Distribution losses

It is pointed out by a number of stakeholders that the DISCOMs have not segregated the technical and commercial losses and the burden of commercial losses is being passed on to all consumers.

The DISCOM is directed to get the technical and commercial losses segregated by conducting proper energy audit. Ssuch segregation is necessary as the measures required to be taken for the two types of losses are different.

Action taken shall be reported to the Commission by November, 2011.

8. Fuel and Power Purchase Price Adjustment

8.1 Fuel Price and Power Purchase Price Adjustment

The Commission had approved the formula for Fuel Price and Power Purchase Cost Adjustment vide order, under Case No.2 fo 2003 dated 25th June, 2004.

The PGVCL in its MYT tariff petition for FY 2011-12 to FY 2015-16 has submitted that the entire procurement of power by DISCOMs is through GUVNL, which purchases power from GSECL and other sources. Therefore, power purchased by GUVNL/DISCOMs from GSECL power stations is also purchase of power, like purchase of power from other sources. Hence, it would not be appropriate to have separate fuel component for increase in fuel cost of GSECL stations in the formula. It is therefore, requested to have one component in the formula for variation in power purchase price including power purchase from GSECL owned stations.

The tariff for the entire power purchased by GUVNL / DISCOMs is determined / approved by the appropriate Commission and hence the entire power procurement by GUVNL / DISCOMs is purchase of power only.

8.2 Power Purchase Price Adjustment (FPPPA)

It is submitted by PGVCL that the incremental cost paid by the GUVNL/DISCOMs compared to the base year for purchase of power from various sources is to be recovered by DISCOMs as per Power Purchase Price Adjustment mechanism. The proposed formula for calculation of per unit power purchase price adjustment charges is as follows:

FPPPA = [(PPCA-PPCB)]/1-(A)

PPCA	Is the average power purchase cost per unit of delivered energy, computed based on the operational parameters approved by the Commission or principles laid down in the power purchase agreements in Rs. / KWh for all the generating stations who have supplied power in the given quarter, calculated as total power purchase cost billed in Rs. Million divided by the total quantum of power purchase in million units made during the quarter.

PPCB	Is the approved average base power purchase cost per unit of delivered energy for all the generating stations considered by the Commission for supplying power to the company in Rs. / KWh, calculated as the total power purchase cost approved by the Commission in Rs. Million divided by the total quantum of power purchase in million units considered by the Commission.
LA	Is the weighted average of the approved level of Transmission and Distribution losses for the four Discoms applicable for a particular quarter.

The PGVCL has also furnished the contracted capacity from each source, the total fixed cost and the variable cost / kWh for central generating stations, IPPs, GSECL for the year FY 2011-12 as given below:

Table 8.1: Existing capacity allocation to GUVNL for FY 2011-12

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. crores)	VC (Rs./Unit)
GSECL Plants				
Ukai TPS	850	9	247	1.71
Ukai Hydro	305	1	24	0.00
Gandhinagar I to IV	660	10	266	2.38
Gandhinagar V	210	9	97	2.13
Wanakbori I to VI	1260	9	366	2.11
Wanakbori VII	210	9	95	2.02
Wanakbori Expansion	800	9	673	1.60
Sikka TPS	240	11	122	2.77
Kutch Lignite I to III	215	12	222	1.18
Kutch Lignite IV	75	12	129	1.11
Dhuvaran oil	-	-	-	-
Kadana Hydro	242	1	61	0.00
Utran Gas Based	135	4	52	2.37
Dhuvaran Gas Based - Stage-I	107	3	56	2.41
Dhuvaran Gas Based - Stage-II	112	3	67	2.39
Utran Extension	375	3	291	2.07
Ukai Expansion 6	500	9	401	1.54
Sikka 3 & 4	500	9	401	1.99
Dhuvaran CCPP Ext - 3	360	3	329	3.39
Total of GSECL plants	**7156**		**3899**	
IPPs				
ESSAR	300	3	251	2.95
GPEC	655	3	515	2.40

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. crores)	VC (Rs./Unit)
GIPCL II (160)	165	3	54	1.95
GIPCL-SLPP	250	10	158	1.14
GSEG	156	3	126	1.77
GIPCL - I (145)	42	3	23	2.15
GIPCL Addition	500	10	315	1.14
GMDC - Akrimota	250	10	203	0.74
GSEG Expansion	351	4	238	5.00
GIPCL, Expansion	250	10	158	1.14
GSPC-Pipavav	700	4	473	5.00
BECL	500	11	390	1.20
Total of IPPs	**4119**		**2903**	
SHARE FROM CENTRAL SECTOR				
NPC - Tarapur- 1&2	160	10	-	0 .95
NPC - Kakrapar	125	13	-	2 .19
NPC kakrapar addition	476	13	-	2 .89
NPC - Tarapur- 3&4	274	10	-	2 .32
NTPC - Lara	140	9	170	1 .31
NTPC - KORBA	360	8	74	0 .76
NTPC - VINDHYACHAL - I	230	9	58	1 .27
NTPC - VINDHYACHAL - II	239	8	98	1 .23
NTPC - VINDHYACHAL - III	266	8	165	1 .21
NTPC - KAWAS	187	3	75	2 .32
NTPC - JHANOR	237	3	132	2 .14
NTPC - Sipat Stage-I	540	8	421	0 .88
SSNNL - Hydro	232	1	-	2 .05
NTPC - Kahalgaon (New)	141	8	172	1 .78
NTPC - Sipat Stage-II	273	7	192	0 .88
NTPC-Mauda STPS-I	240	7	242	0 .89
NTPC - Barh STPS-I	260	7	169	0 .81
NTPC - Vindhyachal STPS-IV	240	7	287	0 .87
NTPC - Barh STPS-II	174	7	102	0 .89
NTPC-Mauda STPS-II	240	7	470	1 .05
NTPC - KORBA II	96	7	102	0 .72
Mundra UMPP	1805	-	1448	0 .91
Tilaiya UMPP	300	-	143	0 .95
Total from Central Sector	**7235**		**4522**	
OTHERS				
Captive Power Plant (MU)	8	-	-	3 .64
Renewable				
Wind Farms (1.75)	22			1 .75
Wind Farms (3.37)	782			3 .37
Wind Farms (3.56)	229			3 .56
Solar Photovoltic	944			1 5.00
Solar Thermal	25			1 1.00
Biomass	30			4 .40
Hydro	9			3 .52
Competitive Bidding				

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. crores)	VC (Rs./Unit)
APPL	2000		1634	1 .43
Aryan	200		226	0 .55
Essar - 1000 MW	1000		820	1 .27
Wardha Power - KSK Mahanadi Power Co	1010		1023	0 .62
Essar - 800 MW	800		798	1 .38
Shapoorji Pallonji	800		798	1 .38

Commission's decision

The Commission has examined the request of PGVCL. It is considered that the formula approved by the Commission covers both fuel price adjustment and power purchase adjustment components and could be applied to the extent required for fuel price adjustment or power purchase adjustment or both.

The FPPPA formula approved by the Commission in the order dated 25th June, 2004 is given below:

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

Where,

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

Where,

F_{OG}	Adjustment on account of variations in delivered cost of Fuel at GEB's Thermal Power Stations Rs. in millions
n	1 to k, the thermal power stations in GEB. Details at Table-8.
OGD_A	is the actual level of delivered energy at the bus bar (net generation) from GEB's thermal plants in million units during the control period.
H_B	is the base station heat rate in K.Cal./ Kwh calculated on the net output using permitted auxiliary consumption (Table -8)
$FuelC_A$	is the new landed price of fuel at relevant GEB's generating stations, expressed in Rs. / Kcal calculated after **allowing only statutory / notified increases (or decreases) in the price of fuel/railway freight, taxes and duties on fuel as well as fuel price increase by central/state Government PSUs.@**

$FuelC_B$	is the base## landed price of fuel at relevant GEB's generating stations, expressed in Rs. / Kcal calculated using the base data. This parameter is constant (frozen) for the various quarters (periods) for which increases in fuel prices is being permitted.

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

Where,

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

Base year for this order is Financial Year 2003-04

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

Where,

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

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

and

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

Where,

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

Excess T & D loss in MU=

{(Net Generation in MU + Power Purchase in MU – Total sales in MU)} -

{(Net Generation in MU + Power Purchase in MU) X (%T& D loss Norm)}

Where,

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

8.3 Base price of fuel of GSECL stations

The Commission has approved the operational parameters for each source / station variable cost / kWh, total fixed cost for GSECL central generating stations, IPPs and others for the FY 2011-12 as given below:

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. Crores)	VC (Rs./Unit)
GSECL Plants				
Ukai TPS	850	9	246.64	1.710
Ukai Hydro	305	1	24.42	0.000
Gandhinagar I to IV	660	10	266.37	2.375
Gandhinagar V	210	9	97.24	2.130
Wanakbori I to VI	1260	9	365.37	2.108
Wanakbori VII	210	9	94.58	2.022
Wanakbori Expansion	800	9	673.00	1.600
Sikka TPS	240	11	121.68	2.769
Kutch Lignite I to III	215	12	221.50	1.181
Kutch Lignite IV	75	12	129.34	1.109
Dhuvaran oil	-	-	-	-
Kadana Hydro	242	1	61.45	0.00
Utran Gas Based	135	4	51.88	2.367
Dhuvaran Gas Based - Stage-I	107	3	56.17	2.411
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Utran Extension	375	3	290.98	2.071
Ukai Expansion 6	500	9	401.00	1.540
Sikka 3 & 4	500	9	401.00	1.990
Dhuvaran CCPP Ext - 3	360	3	329.00	3.390
Total of GSECL plants	**7156**		**3899.42**	
IPPs				
ESSAR	300	3	251	2.95
GPEC	655	3	515	2.40
GIPCL II (160)	165	3	54	1.95
GIPCL-SLPP	250	10	158	1.14
GSEG	156	3	126	1.77
GIPCL - I (145)	42	3	23	2.15
GIPCL Addition	500	10	315	1.14

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. Crores)	VC (Rs./Unit)
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NTPC - VINDHYACHAL - III	266	8	165	1 .21
NTPC - KAWAS	187	3	75	2 .32
NTPC - JHANOR	237	3	132	2 .14
NTPC - Sipat Stage - I	540	8	421	0 .88
SSNNL - Hydro	232	1	-	2 .05
NTPC - Kahalgaon (New)	141	8	172	1 .78
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NTPC - Mauda STPS-I	240	7	242	0 .89
NTPC - Barh STPS-I	260	7	169	0 .81
NTPC - Vindhyachal STPS-IV	240	7	287	0 .87
NTPC - Barh STPS-II	174	7	102	0 .89
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NTPC - KORBA II	96	7	102	0 .72
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Hydro	9			3 .52
Competitive Bidding				
APPL	2000		1634	1 .43
Aryan	200		226	0 .55

Stations	Rated Capacity allocated to GUVNL (MW)	Auxiliary Consumption (%)	FC Approved MYT (Rs. Crores)	VC (Rs./Unit)
Essar - 1000 MW	1000		820	1 .27
Wardha Power - KSK Mahanadi Power Co	1010		1023	0 .62
Essar - 800 MW	800		798	1 .38
Shapoorji Pallonji	800		798	1 .38

GUVNL may claim the increase in the power purchase cost in accordance with the formula approved by the Commission in June, 2004 and minor changes introduced by the order dated 5th May, 2006 and pass on the claim for payment to the DISCOM to be recovered from the consumers as per orders of the Commission from time to time.

8.4 Base FPPPA charge is fixed at 61 paise/unit.

Information regarding FPPPA recovery and the FPPPA calculations submitted to the Commission for approval shall be kept on website of the Licensee / GUVNL as and when such proposal is submitted by the Licensee / GUVNL.

For any increase in FPPPA beyond ten (10) paise per kWh in a quarter, prior approval of the Commission shall be necessary, and only on approval of such increase by the Commission, the FPPPA can be billed to the consumers.

For any claim of FPPPA, the documents for approval of FPPPA shall be submitted to the Commission within one month from end of the relevant quarter.

9. Wheeling charges and cross subsidy surcharge

9.1 Allocation matrix

Regulations 88.1 of MYT Regulations, 2011 of GERC stipulates that the Commission shall specify the wheeling charges of distribution wires business of the distribution licensees in its ARR and Tariff Order.

The PGVCL has provided the allocation matrix for allocation of costs between wires business and retail supply business as notified in the GERC (MYT) Regulations, 2011 (Regulation 81.1) as shown in the table below:

Table 9.1 Allocation matrix for segregation of wheeling and retail supply for PGVCL for the FY 2011-12

Sl. No.	Allocation Matrix	Wire Business	Retail Supply Business
1	Power Purchase Expenses	0%	100%
2.1	Employee expenses	60%	40%
2.2	Repair & Maintenance expenses	90%	10%
2.3	Administration & General Expenses	50%	50%
2.4	Other Debits	50%	50%
2.5	Extraordinary Items	50%	50%
2.6	Net Prior Period Expenses / (Income)	25%	75%
2.7	Other Expenses Capitalised	55%	45%
3	Depreciation	90%	10%
4	Interest & Finance charges	90%	10%
5	Interest on Working Capital & Security Deposit	10%	90%
6	Bad debts written off	0%	100%
7	Income tax	90%	10%
8	Return on Equity	90%	10%
9	Non tariff income	10%	90%

It is further submitted that the allocation for other debits, extraordinary items, net prior period expenses (income), with expenses capitalized has been done as per the weighted average expense of wires and retail supply business in these elements (as per the audited accounts for FY 2009-10).

Based on the above allocation the approved ARR for wires business and retail supply business are computed for PGVCL for FY 2011-12.

Table 9.2: Allocation of ARR between wheeling and retail supply business for PGVCL for FY 2011-12.

Sl. No.	Particulars	FY 2011-12	Wire Business	Retail Supply Business
1	Cost of Power Purchase	**5189.81**	0.00	5189.81
2	Operation & Maintenance Expenses	0.00		
2.1	Employee Cost	391.28	234.77	156.51
2.2	Repair & Maintenance	84.17	75.75	8.42
2.3	Administration & General Charges	74.35	37.18	37.18
2.4	Other Debits	7.16	3.58	3.58
2.5	Extraordinary Items	0.00	0.00	0.00
2.6	Net Prior Period Expenses / (Income)	0.00	0.00	0.00
2.7	Other Expenses Capitalised	(111.00)	(61.05)	(49.95)
3	Depreciation	284.74	256.27	28.47
4	Interest & Finance Charges	127.41	114.67	12.74
5	Interest on Working Capital	0.00	0.00	0.00
6	Provision for Bad Debts	8.58	0.00	3.84
7	**Sub-Total [1 to 6]**	**6056.50**	**661.16**	**5390.60**
8	Return on Equity	195.40	175.86	19.54
9	Provision for Tax / Tax Paid	15.24	13.72	1.52
10	**Total Expenditure (7 to 9)**	**6267.14**	**850.74**	**5411.66**
11	Less: Non-Tariff Income	142.11	14.21	127.90
12	**Aggregate Revenue Requirement (10-11)**	**6125.03**	**836.53**	**5283.76**
13	Les s: other income consumer related	124.00	12.40	111.60
14	**Net ARR**	**6001.03**	**824.13**	**5172.16**

9.2 Wheeling charges

The wheeling charges for the four Distribution Companies, DGVCL, MGVCL, PGVCL and UGVCL for the FY 2011-12, the first year of the control period (FY2011-12 to FY 2015-16) as given below are applicable for use of the distribution system of a licensee by other licenses or generating companies or captive power plants or consumers / users who are permitted open access under section 42 (2) of the Electricity Act, 2003.

Sl.No.	Particulars	Units	Amount
1	Distribution costs of the four DISCOMs	Rs. crore	2020.89
2	Distribution cost of the four DISCOMs at 11 kV level (30% of total distribution cost)	Rs. crore	606.27
3	Energy input at 11 kV	MU	56687
4	Wheeling charges at 11 kV	Ps./kWh	11
5	Wheeling charges at 400 V (LT)	Ps./kWh	39

Detaild computation of wheeling charges is shown in the Annexure-9.1.

Distribution losses

The distribution loss at 11 kV and 400 V during FY 2011-12 are given below:

Particulars	Point of energy delivered	
	11 kV	400 Volts
11 kV, 22 kV and 33 kV	10%	18.73%
400 Volts	-	13.64%

The losses in HT and LT network are 10% and 13.59% respectively, with respect to energy input to the segment of the system. In case injection at 11 kV levels and drawal at LT level envisages use of both the networks i.e. 11 kV and LT, in that case, the combined loss works out to 18.69% of the energy injection at 11 kV network.

The above wheeling charges payable shall be uniform in all the four distribution companies, DGVCL, MGVCL, PGVCL and UGVCL.

9.3 Cross subsidy charges

The cross subsidy surcharge is based on the formula given in the Tariff Policy as below:

$$S = T - \left[C(1+L/100) + D \right]$$

Where,

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power

D is the Wheeling charges

L is the System losses for the applicable voltage level, expressed as percentage.

The cross subsidy surcharge based on the above formula is worked out as shown in the Table below:

Table 9.3: cross subsidy surcharge for FY 2011-12

Sl. No.	Particulars	HT Industry
1	T	Rs. 5.41/kWh
2	C	Rs. 4.46/kWh
3	D	11 paise/kWh
4	L	10%
5	S= cross subsidy surcharge	39 Ps/kWh

Computation

1. Discom Average HT Tariff

Particulars	Average HT Tariff (Rs./kwh)	FPPPA (Rs./kwh)	Total (Rs./kwh)
HT industry	4.80	0.61	5.41

2. Wt. average Power Purchase cost of top 5% at the margin excluding fuel base generation and renewable power.

Stations	Energy procured (MU)	Avg. Rate (Rs./kWh)	Total cost of power (Rs. cr.)
ESSAR	1028	4.91	504.75
GPEC	1663	4.25	706.78
SIKKA	314	4.07	127.80
Total	3005		1339.33

Average power purchase cost = (1339.33/3005)*10 = Rs. 4.46 /kWh

Cross Subsidy Surcharge

H.T S=5.41-[4.46(1+10/100)+0.11] = Rs.0.39 / kWh

Annexure 9.1

Computation of Wheeling charges

Sl. No.	Particulars	Unit	DGVCL	MGVCL	PGVCL	UGVCL	Total
1	Distribution		325.43	370.47	824.13	500.87	2020.89
	(a) 11 kV level (at 30%)	Rs. crore	97.63	111.14	247.24	150.26	606.27
	(b) LT level (at 70%)	Rs. crore	227.80	259.33	576.89	350.61	1414.63
2	Energy input at DISCOM periphery	MU	11720.00	8198.00	20452.00	16317.00	56687.00
3	**Wheeling charges at 11 kV 1(a/2)*1000**	**Ps./kWh**	**8.33**	**13.56**	**12.09**	**9.21**	**10.70**
4	11 kV losses (@10%)	MU	1172.00	819.80	2045.20	1631.70	5668.70
5	Sales at 11 kV	MU	4093.00	2921.00	4099.00	3639.00	14752.00
6	Energy input at LT (MU) (2-(4+5))	MU	6455.00	4457.20	14307.80	11046.30	36266.30
7	**Wheeling charges at LT (1(b)/6)*1000**	**Ps./kWh**	**35.29**	**58.18**	**40.32**	**31.74**	**39.01**
8	Sales at LT level	MU	6190.00	4232.00	10422.00	10475.00	31319.00
9	LT loss (6-8)	MU	265.00	225.20	3885.80	571.30	4947.30
		%	4.11	5.05	27.16	5.17	13.64
10	Total losses (4+9)	MU	1437.00	1045.00	5931.00	2203.00	10616.00
		%	12.26	12.75	29.00	13.50	18.73

10. Tariff philosophy and Tariff proposals

10.1 Introduction

The Commission has been guided by the provisions of the Electricity Act, 2003, the National Electricity Policy (NEP), the Tariff Policy, the Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and the Regulations on Terms and Conditions of Tariff, 2005 and MYT Regulations, 2011 notified by the Commission.

Section 61 of the Act lays down the broad principles and guidelines for determination of retail supply tariff. The basic principle is the ensure that tariff should progressively reflect the cost of supply of electricity and reduce the cross subsidies amongst categories within a period to be specified by the Commission.

The Commission notified the Multi-Year Tariff (MYT) Framework for determination of tariff on 22nd March, 2011. The ARR approved in this order is for the control period FY 2011-12 to FY 2015-16 and the retail supply tariffs are determined for FY 2011-12, the first year of the control period.

The Commission has carried forward the process of rationalization of tariff in order to ensure that the tariffs reflect, as far as practicable, the cost of supply. The Commission has also tried to address operational and field level issues – keeping in view the interest of consumers – while nationalizing the tariff strucure.

For example, tariff rate commonly known as commercial tariff was applied to commercial establishments in respect of lighting and fan. Such establishments had to pay at the industrial rate in respect of motive power. A consumer had to keep two meters, which means avoidable cost and inconvenience to both the consumer and the utility. The commercial tariff was also applied to a range of consumers including shops, restaurants, theatres, IT units, telecom units, and even offices, hospitals and educational institutions. In other words, it was applied to almost the entire service sector. In recent times, the structure of the economy has changed; the tertiary or service sector has been playing a dominant role in economic growth. In the context of development policy, a number of such activities are treated as industrial activities and given priority. Thus, the tariff structure, which was designed in the past, has become anachronistic; in practice and very often it become difficult to distinguish between industrial activities and so called commercial activities, which are mostly service activities at present. This also results in confusion and ambiguity for field level officials of the utilities. In order to address these issues, the Commission has restructured the tariff in respect of High Tension power supply in the tariff order of 31st March 2010. It greatly helped to simplify the processes and procedures, particularly in field and was well received by the utilities and consumers. As a sequel to the process of rationalization, the Commission has, in the present order, attempted to rationalize the tariff structure in respect of Low Tension power supply.

The mandate of the NEP that the tariff should be within plus or minus 20% of the average cost of supply by FY 2010-11 has been the guiding principle. In working out the cost of supply the Commission worked out the basis of average cost of supply, in the absence of relevant data for working out consumer category-wise cost of supply.

10.2 Proposal of PGVCL for tariff increase and changes in tariff structure

10.2.1 Tariff proposal

The PGVCL has proposed a tariff increase of 25 paise / kWh for all categories of consumers except agriculture and BPL (1-30kWh) households. PGVCL has also requested that the uncovered gap be allowed as “Regulatory Asset” to be recovered in future.

10.2.2 Proposed changes in the tariff structure (LT category)

The PGVCL has proposed certain modifications to the current tariff structure as below:

A. Tariff Rate LFD-II (For Commercial Purposes):

This tariff will apply to the services for the purposes specified in the rate LFD-II in respect of commercial premises, such as shops, offices, banks, studio, storage, distribution pumping stations, refilling of gas, oil and other material, Railway Stations, hostels, laboratories, hospitals, telephone exchanges, infocom, broadcasting and telecasting, stations, training centres, public gardens, cinema theatres, drama theatres, video parlors, public meeting house, recreation places, multiplexes, malls, workshop, hotels, restaurants, showrooms, educational institutes other than specified under LFD-III etc.

- LFD – II category may be split into LFD- II(a) and LFD- II(b)
- LFD – II (a) shall be contracted load based and up to 15 KW, and LFD-II (b) shall be demand based for the contracted load of 15 KW and above.

The DISCOM submits that the data pertaining to LFD-II (a) & (b) category of consumers is currently not available and hence has not been submitted in the formats. However, LFD-II on a consolidated basis has been submitted for reference. PGVCL requests the Commission to consider the above category keeping in view the practical issue of DISCOM.

B. LTP – I Tariff Category:

Under the head of Minimum Bill per Installation for seasonal consumer, the following clause shall be inserted

• "Up to 10% of monthly average consumption of the previous seasonal period, upto 15% of contracted load can be availed every month during off-seasonal period. In case the consumer exceeds any of these conditions, such consumer, for the relevant billing period, shall be billed under tariff category of LTP-I as if non-seasonal consumer.

C. LTP – III Tariff Category:

LTP-III tariff is a switch over tariff i.e from LTP-I to LTP-III and vice versa. It is proposed to make these tariff categories mutually exclusive; however, LTP –I consumer shall have an option to switch over to LTP – III.

• Sl. no. 4 of the Note provided at the end of tariff provisions be modified as under:

"4. In the event actual maximum demand exceeds 100 KW more than three occasions during the period of six months, the consumer has to switch over to HT Power Supply within a time period of 3 months from last occurrence."

D. Street Light:

• Minimum Charges clause deleted

E. Agriculture:

Clause 7.2 "No machinery other than to pump water for irrigation (and a single bulb or CFL upto 40 watts) will be permitted under this tariff. Any other machinery connected to the installation shall be charged separately at appropriate tariff for which consumers shall have to take separate connection."

• BHP is replaced with HP in all categories.

10.2.3 HT category

A. HTP-I:

Maximum Demand and its measurement is proposed as under:

"The maximum demand in KW or KVA, as the case may be, shall mean an average KW/KVA supplied during the consecutive 30/15 minutes or if consumer 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, has been provided".

B. Under the head seasonal consumers taking HT supply, the following clause shall be inserted.

"Up to 10% of monthly average consumption of the previous seasonal period and upto 15% of contracted load can be availed every month during off-seasonal period. In case the consumer exceeds any of these conditions, such consumer, for the relevant billing period shall be billed under tariff category of HTP-I as if non-seasonal consumer."

C. Time of Use Charges:

These charges shall be levied from all consumers

Commission's Analysis and Decision

With the existing structure of the tariff categories there are different tariff rates for lighting consumption and for motive power consumption. In view of this, a consumer is required to put separate meters for recording separately consumption of lighting and motive power in same premises. There are chances that the consumers may, due to ignorance or oversight, connect small appliances/gadgets in motive power circuits intentionally and other-wise and this can be considered as 'theft of Electricity' under the Electricity Act, 2003. Some of Consumer Associations requested the Commission to remove this categorisation of lighting tariff rates and motive power tariff rates in single premises.

In view of the above, the Commission has decided to combine lighting consumption and motive power consumption into the same category for the purpose of determining tariff.

The existing LFD-I tariff category provides tariff rates for lighting consumption of Residential premises and existing LTP-I category provides tariff rates for motive power consumption (excluding water works) of Residential premises. Now, this category is renamed as "RGP" and modified to cover aggregate consumption of Residential premises having connected load upto 100 kVA.

The existing LFD-II category provides tariff rates for lighting consumption of Commercial/Industrial premises and existing LTP-I category provides tariff rates for motive power consumption of Commercial/Industrial premises. Both of these categories are now merged and installations having connected load upto 40 kW of commercial, industrial, office premises, institutional and other premises are clubbed into one category named as "Non-RGP".

Installations having aggregate connected load above 40 kW of Commercial / Industrial / office / institutional premises are now covered under existing LTP-III tariff category, which is renamed as "LTMD" category.

The existing LFD-III and LTP-II categories applicable for educational and other institutions registered with Charity Commissioner and R&D laboratories are merged into one category and renamed as "GLP" category with appropriate tariff.

(i) HTP-I

The proposal for the method of measurement of maximum demand and the additional condition for HT seasonal loads proposed to be introduced is approved.

(ii) Time of Use charges

Time of Use charges are introduced for HT consumers below 500 kVA.

Change in Tariff Rates

- For 'RGP' tariff category, Energy charge in paise per unit is revised as below:

Consumption/ Month	Urban		Rural	
	Existing	Revised	Existing	Revised
1-50 unit	280	295	230	255
51-100 unit	310	325	260	285
101-250 unit	375	390	325	350
Above 250 unit	475	480	435	450

- For 'Non-RGP' tariff category, fixed charge for connected load of 10 BHP is revised from existing rate of Rs. 22 per BHP per month to Rs. 30 per kW per month. For connected load above 10 BHP and up to 50 BHP, the existing rate of Rs. 40 per BHP per month is revised to Rs. 55 per kW per month. Energy charge for this category is increased by 20 paise per unit.

- For 'LTMD' category, Energy charge is increased by 20 paise.

- For AG (Agricultural) category, the HP based tariff is increased from Rs. 160 per BHP per month to Rs. 175 per BHP per month.

- For 'Temporary' category, fixed charge is now introduced as Rs. 14 per kW per day and energy charge is fixed at Rs. 4.25 per unit.

- For 'HTP-I' category, demand charges are revised as given below-

Billing Demand	Existing Rate	Revised Rate
First 500 kVA	Rs. 100 per kVA	Rs. 100 per kVA
Next 500 kVA	Rs. 140 per kVA	Rs. 200 per kVA
Next 1500 kVA	Rs. 210 per kVA	Rs. 270 per kVA
Above 2500 kVA	Rs. 240 per kVA	Rs. 270 per kVA

There is no change in energy charge for this category.

- For 'HTP-II' category, demand charges are revised as given below

Billing Demand	Existing Rate	Revised Rate
First 500 kVA	Rs. 90 per kVA	Rs. 90 per kVA
Next 500 kVA	Rs. 130 per kVA	Rs. 190 per kVA
Next 1500 kVA	Rs. 190 per kVA	Rs. 250 per kVA
Above 2500 kVA	Rs. 220 per kVA	Rs. 250 per kVA

There is no change in energy charge for this category.

- ‘Time of Use’ charge of 35 paise per unit is introduced for HT consumers having billing demand up to 500 kVA.

- For other LT categories (except metered Ag. Consumers), energy charges are increased by 25 paise per unit.

10.3 Revenue Gap / Surplus

Gap / Surplus of PGVCL for FY 2011-12

The total revenue based on the existing tariff for FY 2011-12 is Rs. 5906.04 crore and the net gap is Rs. 218.99 crore. The Commission has revised the tariff which brings in additional revenue of Rs. 179.85 crore still leaving gap of Rs. 39.14 crore. The Commission has decided that it will review the same during true up for FY 2011-12 when the audited accounts would be made available to the Commission.

The consolidated gap at existing tariff for 4 Licensees viz. UGVCL, DGVCL, MGVCL and PGVCL is Rs. 606.67 crore for FY 2011-12. Additional revenue due to revision in tariff is expected to be Rs. 611.88 crore, resulting into consolidated surplus of Rs. 5.21 crore.

10.4 Impact of Electricity Duty

During the public hearing, several consumer organizations and others brought to the notice of the Commission the high rates of Electricity Duty in Gujarat. It may be noted that imposition of Electricity Duty is the prerogative of the Government. However, the Commission has noted the issue and observes that there is a need to rationalize Electricity Duty. The Commission feels that the system of *ad-valorem* duty increases the impact of any tariff increase even further.

The *ad-valorem* structure increases the burden on the consumers, impacts on the finances of the utilities and distorts the tariff structure. With the rationalization of the tariff structure by the Commission, there is a need to revisit the structure of electricity duty. The Commission has therefore, suggested that the Government should consider rationalizing Electricity Duty, keeping in view the above aspects and the practices in other States, so that it becomes reasonable, stable and predictable.

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement (ARR) for Paschim Gujarat Vij Company Limited (PGVCL) for the control period FY 2011-12 to FY 2015-16 as shown in the following table.

ARR approved for the control period for 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	**5189.81**	**5946.52**	**6472.59**	**6723.88**	**7570.53**
2	Operation & Maintenance Expenses	549.80	581.25	614.50	649.64	686.80
2.1	Employee Cost	391.28	413.67	437.33	462.34	488.79
2.2	Repair & Maintenance	84.17	88.98	94.07	99.45	105.14
2.3	Administration & General Charges	74.35	78.60	83.10	87.85	92.88
2.4	Other Debits	7.16	7.16	7.16	7.16	7.16
2.5	Extraordinary Items	0.00	0.00	0.00	0.00	0.00
2.6	Net Prior Period Expenses / (Income)	0.00	0.00	0.00	0.00	0.00
2.7	Other Expenses Capitalised	(111.00)	(118.00)	(124.00)	(131.00)	(139.00)
3	Depreciation	284.74	332.59	392.20	451.45	506.46
4	Interest & Finance Charges	127.41	142.47	164.31	180.68	187.95
5	Interest on Working Capital	0.00	0.00	0.00	0.00	0.00
6	Provision for Bad Debts	8.58	8.58	8.58	8.58	8.58
7	**Sub-Total [1 to 6]**	**6056.50**	**6900.57**	**7535.33**	**7890.39**	**8828.49**
8	Return on Equity	195.40	226.24	265.86	304.57	339.26
9	Provision for Tax / Tax Paid	15.24	15.24	15.24	15.24	15.24
10	**Total Expenditure (7 to 9)**	**6267.14**	**7142.05**	**7816.43**	**8210.20**	**9182.99**
11	Less: Non-Tariff Income	142.11	142.11	142.11	142.11	142.11
12	**Aggregate Revenue Requirement (10 - 11)**	**6125.03**	**6999.94**	**7674.32**	**8068.09**	**9040.88**

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

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

Place : Ahmedabad

Date : 06.09.2011

ANNEXURE: TARIFF SCHEDULE FOR FY 2011-12

TARIFF SCHEDULE

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

Effective from 1st September, 2011

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 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

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

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:

(a)	**For billing demand up to the contract demand**	
	(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

PLUS

5.3 **Reactive Energy Charges:**

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

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 <u>The billing demand shall be the highest of the following</u>:

(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

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

7.3 Reactive Energy Charges:

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

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 cannel, river, & dam and supplying water directly to the fields 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:

Energy charges per month: For entire consumption during the month	275 Paise/Unit

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

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

11.1.2 Optional kVAh Charges:

For all the kVAh units consumed during the month:	270 Paise per Unit

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

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

12.2 ENERGY CHARGE

A flat rate of	425 Paise per Unit

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

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

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.

5.7 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

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	Same as per HTP-I Tariff
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	

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

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

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

16.3 Billing demand
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

Same as per HTP-I Tariff

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

17.3	Billing demand	Same as per HTP-I Tariff
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	

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

18.3 Billing demand
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

Same as per HTP-I Tariff