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GUJARAT ELECTRICITY REGULATORY COMMISSION

(GERC)

AHMEDABAD

TARIFF ORDER
FOR
Dakshin Gujarat Vij Company Limited (DGVCL)

Case No. 946 of 2008

17 January 2009

C O N T E N T S

List of Tables

Annexure

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION AT AHMEDABAD

Case No.946 / 2008

Date of Order:17.01.2009

CORAM

Dr. P K Mishra, Chairman

Shri K P Gupta, Member

Dr. Man Mohan, Member

ORDER

1. INTRODUCTION

1.1 Background

The Government of Gujarat unbundled and restructured the Gujarat Electricity Board (GEB) with effect from 01.04.2005. The Generation, Transmission & Distribution businesses of the erstwhile Gujarat Electricity Board were transferred to seven successor companies. The seven successor companies are listed below:

i) Gujarat State Electricity Corporation Limited (GSECL)
(A Generation Company)

ii) Gujarat Energy Transmission Corporation Limited (GETCO)
(A Transmission Company)

Four Distribution Companies:

iii) Dakshin Gujarat Vij Company Limited (DGVCL)

iv) Madhya Gujarat Vij Company Limited (MGVCL)

v) Uttar Gujarat Vij Company Limited (UGVCL)

vi) Paschim Gujarat Vij Company Limited (PGVCL)

and

vii) Gujarat Urja Vikas Nigam Limited (GUVNL) – A Holding Company and is also responsible for purchase of electricity from various sources and supply to Distribution Companies.

1.1.2 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, containing the value of assets and liabilities, which stand transferred from the erstwhile Gujarat Electricity Board to the transferee companies including Dakshin Gujarat Vij Company Limited (DGVCL). Assets and liabilities (gross block, loans and equity) have been considered by the Commission in line with the Financial Restructuring Plan (FRP) as approved by Government of Gujarat.

1.1.3 **Commission's order for 2007-08**

DGVCL had filed its ARR petition for the FY 2007-08 on 29.12.2006 in accordance with the Regulations notified by GERC on Terms and Conditions of Tariff. The Commission, in exercise of the powers vested under section 61 and 62 of the Electricity Act, 2003 and other powers enabling it in this behalf and after taking into consideration the submissions made by DGVCL, the objections by various stakeholders, response of DGVCL, issues raised during the public hearing and other relevant material, issued the order for the year 2007-08 on 31.03.2007.

1.2 Multi Year Tariff (MYT) Regulations

The Commission issued Multi Year Tariff (MYT) Framework Regulations for generation, transmission and distribution vide notification dated 20th December 2007 specifying the Terms and Conditions for Determination of Tariff for generation, transmission and distribution of electricity under MYT Framework after due process of consultation and public hearing process.

1.3 MYT Tariff petition for control period FY 2008-09 to 2010-11.

DGVCL filed the MYT petition for approval of Aggregate Revenue Requirement and determination of Wheeling charges and Retail Supply Tariff for the control period (2008-09 to 2010-11) on 31st July 2008.

1.4 Admission of petition and public hearing process

1.4.1 The Commission conducted a preliminary analysis of the petition submitted by DGVCL and admitted the MYT petition of DGVCL for the control period (Case No.946 of 2008) on 14th August 2008.

In accordance with section 64 of the Electricity Act, 2003 the Commission directed DGVCL to publish its application in the abridged form and manner to ensure public participation.

A public notice was issued by the DGVCL inviting objections / suggestions from stakeholders on or before 22.09.2008, which was published in the following newspapers on 22.08.2008.

Sr.No.	Name of the newspaper	Language
1.	Indian Express	English
2.	Gujarat Samachar	Gujarati
3.	Sandesh	Gujarati

Meanwhile, the Commission received requests for extending the time limit for filing objections/ suggestions from some consumers / consumer organizations. With a view to giving some time for obtaining views of the stakeholders, the Commission positively considered the request and extended the time limit upto 13.10.2008. The DGVCL was asked to give public notice to this effect, which was published in the same newspapers on 20.09.2008.

1.4.2 The Commission has received 29 objections / suggestions to the petition filed by DGVCL. The Commission considered the objections received and sent communication to the objectors inviting them to take part in the public hearing process for presenting their views in person before the Commission. Each objector was provided with a time slot on the days of public hearing from 10.11.2008 to 20.11.2008 for presenting their views on the DGVCL petition before the Commission in the Commission's office in Ahmedabad. The names of persons and organizations who filed their objection are listed in Annexure-1. The objectors who appeared at the public hearing and presented their objections are listed in Annexure-2.

A short note on the main issues raised by the objectors at the public hearings in respect of this petition along with the response of the DISCOM is briefly given in Chapter-3.

1.4.3 The Commission obtained further information and clarifications from DGVCL. DGVCL has also furnished supplementary information / data as required by the Commission.

DGVCL gave a presentation on its proposal to the Commission on 5.11.2008.

1.4.3 Taking into account the issue of MYT framework Regulations by the Commission in December 2007 and the time required for DGVCL to prepare the MYT petition for the first time with projections for a three years time frame, the Commission condones the delay in filing the MYT petition.

1.4.4 **State Advisory Committee Meeting**

A meeting of the State Advisory Committee (Constituted under Section 67 of the Electricity Act, 2003) was convened on 7th October 2008 and the members were briefed about tariff petitions received from unbundled licensees for the control period 2008-09 to 2010-11.

Annexure 1

List of Objectors

Sl.No.	Name of the Objector
1.	Shri M. S. Dharodia, Wankaner
2.	Shri Surendra B. Mehta, Bhavnagar
3.	Gujarat Krushi Vij Grahak Suraksha Sangh.
4.	Shri Rameshbhai J. Fuletra, Valsad
5.	Gujarat Hi Tension Consumer Association, Bhavnagar
6.	Gujarat Chamber of Commerce and Industry, Ahmedabad
7.	Shri J. M. Mori, Veraval
8.	Shri Maldevbhai V. Odedara, Ranavav
9.	Shri D. G. Parmar, Veraval
10.	Borsad Industries Association, Borsad
11.	Central South Gujarat Salt Manufacturer's Association, Bharuch
12.	Vapi Industries Association
13.	Deputy CEE/TRD, Western Railway, Mumbai
14.	General Secretary, Mahagujarat Janta Party and Shri Fakirbhai Chhotubhai Chauhan
15.	Laghu Udhyog Bharati, Ahmedabad
16.	Dr S M Rana, Vadodara
17.	Mahuva Chamber of Commerce & Industries, Mahuva
18.	Shri Ghanshyam R. Darji, Vadodara
19.	Ankleshwar Industries Association, Ankleshwar
20.	Varacha Kapodara, A K Road Weavers Association and others, Surat
21.	Shri Sandeep P. Sankalpura and others, Surat
22.	Gujarat Cold Storage Association, Ahmedabad
23.	Sachin Industries Co-operative society Ltd., Surat
24.	Shri Dinesh Parshottamdas Rathod, Jetpur
25.	Shri Babubhai Dhanabhai Zhalavadia
26.	Southern Gujarat Chamber of Commerce and Industry and Surat Citizen's Council Trust, Surat
27.	Tax Payers' Users Consumers Association, Jamnagar.
28.	Consumer Education and Research Society, Ahmedabad
29.	Shri M N Trivedi and Shri V R Patel, Gandhinagar

Annexure 2

List of objectors who appeared at the public hearing and presented their objections

Sl.No.	Name of the Objector
1.	Shri Surendra B. Mehta, Bhavnagar
2.	Shri Kanubhai Patel, General Secretary, Gujarat Krushi Vij Grahak Suraksha Sangh.
3.	Gujarat Hi Tension Consumer Association, Bhavnagar
4.	Gujarat Chamber of Commerce and Industry, Ahmedabad
5.	Secretary, Borsad Industries Association
6.	Shri Rajen Shah, President, Central South Gujarat Salt Manufacturer's Association.
7.	Shri P S Meena, Deputy CEE/TRD, Western Railway, Mumbai
8.	Laghu Udhyog Bharati, Ahmedabad
9.	Shri Ghanshyam R. Darji, Vadodara
10.	Ankleshwar Industries Association, Ankleshwar
11.	Varacha Kapodara, A K Road Weavers Association and others, Surat
12.	Gujarat Cold Storage Association, Ahmedabad
13.	Sachin Industries Co-operative society Ltd., Surat
14.	Southern Gujarat Chamber of Commerce & Industry and Surat Citizen's Council Trust, Surat
15.	Shri K. K. Bajaj, Consumer Education and Research Society, Ahmedabad

Chapter 2

Summary of DGVCL's Tariff Petition

2. 1 Aggregate Revenue Requirement (ARR)

The Dakshin Gujarat Vij Company Limited (DGVCL) in its Petition has submitted the Aggregate Revenue Requirement for the control period (FY 2008-09 to 2010-11) for meeting its expenses and the estimated revenue with the proposed tariff for the control period. The ARR and the revenue gap are given below:

Aggregate Revenue Requirement and Gap (2008-09 to 2010-11)

(Rs. Lakhs)

Particulars	FY 2006-07 Actuals	FY 2007-08 Projected at current tariffs	FY 2008-09 Projected at Proposed tariffs	FY 2009-10 Projected at Proposed tariffs	FY 2010-11 Projected at Proposed tariffs
Total cost of power purchase	303039	337633	355863	413919	447722
O&M Expenses	18776	20957	23053	25358	27894
Depreciation	4193	4978	5816	6821	7761
Interest on loans	6793	8414	8551	9446	10231
Interest on working capital	1244	3307	3717	4148	4542
Other debits	90	94	99	104	109
Extraordinary items	2120	2120	2120	2120	2120
Provision for bad debts	17	343	387	434	475
Less Interest and expenses capitalized	5078	5078	5078	5078	5078
Sub total	331192	372769	394528	457267	495775
Return on equity		2326	5190	5948	6683
Provision for Tax	733	105	115	127	139
Total expenditure	331925	375199	399833	463342	502598
Less: Non tariff income	14005	3752	3752	3752	3752
Aggregate Revenue Requirement	317920	371447	396081	459590	498846
Revenue from sale of power		332738	376376	422093	463185
Other income consumer related		6897	7339	7845	8385
Total revenue before subsidy		339604	383715	429938	471570
Subsidy		5217	6195	6338	6459
Other subsidies		3052	3297	3518	3717
Total revenue after subsidy		347873	393207	439794	481745
Gap		23574	2874	19796	17100

The DGVCL has requested the Commission –

1. To consider the aggregate revenue requirements for the first control period of FY 2008-09 to FY 2010-11 as proposed in this petition and give approval for the same.
2. To consider the proposal for revision in the tariff structure and approve the same.
3. To recognize the revenue gap between the aggregate revenue requirement and the total revenues from the proposed tariff as "Regulatory Asset" to be recovered through tariffs in future.
4. To approve the capital expenditure plan for the Control Period as well as the revised plan for FY 2007-08.
5. To approve the merging of the existing FPPPA charges being collected by the company at Rs. 0.12/- per unit, with the energy charges of each of the tariff slabs or alternatively, it's continuation as FPPPA charge levied on all consumers apart from BPL consumers. In the latter case, any FPPPA charge per unit due to the Discom over the new base approved by the Commission shall be over and above the current amount.
6. To approve the pooling of the approved aggregate gains/losses of the four Discoms i.e., DGVCL, MGVCL, UGVCL and PGVCL, on account of controllable factors, which shall be dealt with in the following manner:
   a. One-third of the amount shall be passed on as a rebate in tariff to all consumers of the four Discoms over such period as may be specified in the order of the Commission under Regulation 9.7;
   b. The balance two-third may be allocated equitably to the four Discoms based on mutual agreement.

Pass any other order as the Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Chapter 3

Brief outline of objections raised, response from DGVCL and Commission's comments

3.0 PUBLIC RESPONSE TO THE PETITION

This chapter deals with the objections received in response to the public notice, the response of DGVCL to the objections and the views of the Commission thereon.

It is observed that the objections / suggestions filed are by and large repetitive in nature. Some of the objections / suggestions are general in nature and some are specific to the proposal submitted by DGVCL for approval of ARR and tariff revision. The Commission, has, therefore, addressed the objections / suggestions issue-wise rather than objector-wise.

3.1. DELAY IN FILING OF THE PETITION

The delay in filing the ARR and tariff petition was objected to by the following consumers / consumer organizations.

1. The Consumer Education and Research Society, Ahmedabad
2. The Gujarat Chamber of Commerce & Industry, Ahmedabad
3. The Southern Gujarat Chamber of Commerce & Industry and Surat Citizens Council Trust, Surat
4. Varacha Kapodara, A K Road Weavers Association and others, Surat.

The main contention of the objection is that, "the licensee is required to file the petition before the Commission for ARR for the ensuing year on or before 30th November every year as per GERC Regulations. The Commission has extended time for the purpose of filing the petition upto 31/03/2008. The licensee has filed the petition in the 1st week of August 2008 and the same was admitted on 14/08/2008. This filing of MYT Petition is in violation of Terms and Conditions of Tariff Regulations 2005 and MYT Regulations 2007. Hence the petition should have been rejected." Further, it is also requested that Tariff Order be implemented with a prospective date, in case the petition is admitted.

Response of Licensee

The licensee is required to file the petition before the GERC for its Aggregate Revenue Requirement (ARR) for the ensuing financial year before the 30th November every year. The work of preparation of ARR/Tariff Petition had been started in June 2007, so that the licensee could file the ARR/Tariff Petition before 30th November 2007. Subsequently, the Commission released the draft Multi Year Tariff Regulations 2007 on the website in August 2007 and called for comments, before 31st August 2007. According to the draft regulations, the Commission shall determine the tariff under Multi Year Framework with effect from 1st April 2008. Hence the licensee had to wait for finalization of regulations to proceed further in filing the ARR/Tariff Petitions under MYT Framework. The regulations were notified by the Commission on the 20th December 2007. As per the regulations, the filing for the first control period was to be done by 31st January 2008. Since the filing of ARR / Tariff Petition under MYT involved considerable data and projections for a three-year period, the

Commission has granted the extension of time for filing upto 31st March 2008 on the request of the licensee. The GOG was consulted on the issues relating the subsidy and capital expenditure schemes which had significant impact on the revenues. The licensee had filed the petition on 30th July 2008 after obtaining approval of the Government. The Commission is requested to condone the delay in filing under Regulation No. 85 of 'Conduct of Business Regulations' of GERC.

Commission's view

The MYT Regulations are newly introduced and the ARR/Tariff Petitions under the MYT Regulations are filed for the first time. The reasons put forth by the licensee are considered reasonable and hence the delay in filing the petition is condoned under Regulation No. 85 of the 'Conduct of Business' Regulations (Notification 2 of 2004) and the petition is admitted for processing on 14th August, 2008. The implementation of the tariff will, however, be with the prospective date.

3.2 DISTRIBUTION LOSSES

The distribution loss projections in the MYT Petition filed by the licensee are objected to by the following consumers / consumer organizations.

1. The Gujarat Krushi Vij Grahak Suraksha Sangh, Visnagar
2. Shri Rameshbhai J Fuletra, Valsad
3. Gujarat Hi-Tension Consumer Association, Bhavnagar
4. Shri J.M. Mori, Veraval
5. Shri Maldevbhai Odedara, Ranavav
6. Shri D. G. Parmar, Veraval
7. Shri Ghanshyam R. Darji, Vadodara
8. Shri Dinesh Parshottamdas Rathod, Jetpur
9. The Ankleshwar Industries Association, Ankleshwar
10. Varacha Kapodara, A K Road Weavers Association, Surat and eight others, Surat

The main contentions of the objections are:

The T&D losses are projected with improper accounting of energy. The inefficiencies of the licensee are getting passed on to the consumers which is burdening consumers. The loss reduction benefit shall be passed on to the consumers as per GERC MYT Regulations. The projected losses for FY 2007-08 have increased as compared to the losses during FY 2006-07. The projected T&D loss figures for control period are high and they require prudent check.

Response of Licensee

The distribution losses of all categories of feeders of DGVCL are less for the year 2007-08 as compared to the year 2006-07. More than 18 lakhs of consumers are being served by the company with 26,677 Km of HT lines and 37,719 Km of LT lines. Therefore, there are technical losses in transmitting the power through the distribution network. Additionally there would be commercial losses due to direct hooking of the lines, tampering of meters, etc. Sometimes meters also become inaccurate due to wear and tear or for any other reason. The company is endeavoring to reduce the losses. The measures proposed for reduction of distribution losses are:

- Enhancement of distribution network by implementation of HVDS, use of AB cables, etc.
- Efficient spot billing by providing handheld meter reading instruments
- Reduction of transformer failure rate
- Metering the load on the transformers for energy audit
- Putting in a number of preventive and punitive measures to curb and control power theft

Commission's view

The Commission has noted the objections and the petitioner's response. The targets for distribution losses are fixed at the permissible level.

3.3 SUBSIDY MECHANISM

a) Government subsidy

The objections on the Government subsidy are filed by the following consumers / consumer groups or organizations.

1. Shri Surendra B Mehta, Bhavnagar
2. The Mahagujarat Janta Party & Shri Fakirbhai C Chauhan, Surat
3. Varacha Kapodara, A K Road Weavers Association, Surat
4. Shri Sandeep P Sankalpura and others, Surat

The main contents of the objections are that the subsidy proposed to cover the cost of Agricultural consumption is not properly assessed. One objector sought to raise the slab for consumption limit from 30 to 75 units per month.

Response of Licensee

Subsidy support from the Government forms a significant part of the revenues of the DISCOMs. The Government is consulted on the issues of the subsidy and the ARR/Tariff petitions of all companies are submitted to GOG and clearance obtained before filing. Subsidy allocation is based on proportion of agricultural consumption.

As regards the increase of the consumption slab from 30 units to 75 units per month to cover the middle class people, the matter is within the purview of the Government to provide the subsidy to cover the gap.

Commission's view

The objector's concern and the response of the licensee are noted.

b) Cross Subsidy

The following consumers / consumer groups / organizations raised objections on the efforts being made to eliminate / reduce the cross subsidization as required under the Tariff Policy.

1. Shri P.S. Meena, Dy Chief Electrical Engineer, Western Railway, Mumbai
2. Shri Maldevbhai Odedara, Ranavav
3. The Mahuva Chamber of Commerce and Industries, Mahuva
4. Shri Dinesh Parshottamdas Rathod, Rajkot
5. The Gujarat Cold Storage Association, Ahmedabad

The main contentions of the objections are:

- Commission shall fix the maximum level of cross subsidy.
- Cross subsidy shall be within the 20% of the average cost of supply as specified in the Tariff Policy.

Response of licensee

The Tariff Policy stipulates that there is a need for rationalization of tariff for various categories such that it shall be aligned to the cost of supply in a band of ± 20%, but the ground realities have made it difficult to implement.

In a situation where the state is facing a peak power deficit, the utilities have to buy significantly more expensive power to meet the peak demand of the state. To further augment the supply at peak time, the companies also buy power in the short-term market at very high rates. For e.g., in FY 2007-08 the average rate of short-term power purchase was Rs. 5.95/ unit. This is expected to go up further in FY 2008-09. One of the primary beneficiaries of the State's efforts of supply of good quality, uninterrupted power are the Industries and commercial entities in the State.

On the other hand, consumers under Agriculture category are being supplied power for a limited period of 8 hours per day. Further, mostly this power is supplied to them during off-peak hours, when the average cost of power purchase from various generating stations is much lower due to the merit order stacking mechanism for power off-take. In effect, the cost of supply to Agriculture category would be much lower than to other categories enjoying power during the entire day including peak hours. Thus, it is natural that the tariff rates for Agriculture category are significantly lower than for other categories of consumers.

While, in the long-run it would be desirable to have some rationalization of tariff across consumer categories, the socio-economic situation of power consumers cannot be neglected as supplying power at affordable rates to all classes of consumers is a primary responsibility of a power utility.

It is well recognized that the cross-subsidy cannot be eliminated or significantly reduced in one go. The legislative mandate is also to reduce the level of cross-subsidy in a gradual manner. Under the circumstances, it is not possible to fix the tariff solely on the basis of cost of supply without any cross subsidization at this stage.

Commission's view

The issues raised by the objectors and the petitioner's response are noted. The element of cross subsidization cannot be eliminated totally at this stage. The Commission has taken a realistic view in determining the level of cross subsidization.

3.4 BAD DEBTS

The following consumers / consumer groups have raised objections on the bad debts projected by the petitioners. The main contention is that the licensee shall be made accountable for the non-recovery of the outstanding dues.

1. The Gujarat Krushi Vij Grahak Sangh, Visnagar
2. The Sachin Industrial Co Operative Society Limited, Surat
3. The Ankleshwar Industries Association, Ankleshwar

Response of licensee

Every year certain amount non-recoverable from the consumers is waived and is charged in the PL Account under the head of other debits for the respective year. Bad and doubtful debts written off for the year 2007-08 stand at Rs. 462.73 lakhs as far as the consumer arrears are concerned. The other debits at the end of the year 2007-08 (provisional) come to Rs. 327.26 lakhs.

Commission's view

Bad and doubtful debts are allowed in line with the Regulations notified by the Commission.

3.5. REVENUE AND EXPENDITURE PROJECTIONS IN ARR PETITION AND ROE

The following consumers / consumer organizations have objected to the revenue and expenditure projections of the ARR petition and the ROE.

1. The Gujarat Krushi Vij Grahak Suraksha Sangh
2. The Vapi Industries Association, Vapi
3. The Mahagujarat Janta Party, Ahmedabad and Shri Fakirbhai C Chauhan, Surat
4. The Laghu Udyog Bharti, Ahmedabad
5. The Southern Gujarat Chamber of Commerce & Industry and Surat Citizen Council Trust, Surat
6. The Sachin Industrial Co-Operative Society Limited, Surat
7. The Ankleshwar Industries Association
8. Shri Sandeep P. Sankalpura, Valsad

The main contention of the objectors is that the expenditure and revenue projections in the ARR are not realistic and that the rate of return on equity (ROE) sought (at 14%) is high.

Response of licensee

The company has projected revenue from various categories of consumers mainly based on historical trend of the past related to category-wise number of consumers, connected load, units sold and growth rate. Similarly the expenditure has been projected based on the past data of pattern of expenditure. Specific reasons like full impact of the 6th Pay Commission, intensive efforts undertaken by the company to upgrade its aging system and thrust on improving the consumer services have also been considered in the expenditure projections. All assumptions and methodology used for projections have been described in the petition. The procedure followed is as per the Tariff Regulations notified by the Commission.

The Return on Equity (ROE) projections are given in Table 46 and explained in para 5.8 of the petition. ROE at 14% is claimed as per the provisions in the Tariff Regulations.

Commission's view

Commission has considered the views and submissions of the objectors and has objectively reviewed both expenditure and revenue projections. Only prudent expenditure and the reasonable revenue projections are allowed in assessing Aggregate Revenue Requirement.

3.6 INTEREST ON WORKING CAPITAL AND FINANCE CHARGES

The following consumers have raised objections on the interest on working capital and finance charges shown in the ARR Petition.

1. The Gujarat Krushi Vij Grahak Suraksha Sangh
2. The Ankleshwar Industries Association

The main content of the objection is that the projections made by the company regarding interest on working capital and finance charges are high.

Response of licensee

The interest on working capital is calculated based on the normative working formula given by the Commission in its "Terms and Conditions of Tariff Regulations". Interest on loan and finance charges and interest on working capital are separate components and the details thereof are given in the petition.

Commission's view

The projections under the interest on working capital and other finance charges are reviewed by the Commission and allowed only to the extent justified.

3.7 O & M EXPENSES

The objections on the issue of O & M expenses are filed by the following Consumers / Consumer organizations.

1. Gujarat Hi-Tension Consumer Association, Bhavnagar.
2. The Vapi Industries Association.

The main contention of the objectors is that the O & M expenses projected as a fixed percentage of revenue is resulting in steep increase in the projections. Percentage shall be reduced to bring down the O & M Costs.

Response of Licensee

The approved O&M costs for the year 2007-08 by the Commission is Rs.12,958 lakhs and the provisional figure for the same year is Rs.18458 lakhs. Increase in O&M Costs has been explained in Para No. 5.3 of the MYT petition.

Commission's View

The views of the objectors and the petitioner are taken and the O & M expenses are allowed only to the extent found reasonable.

3.8 TARIFF RELATED ISSUES

The objections on the tariff related issues are raised by the following Consumers / Consumer organizations.

1. Shri M.N. Trivedi & Shri V. R. Patel, Gandhinagar.
2. Shri Rameshbhai J. Fuletra, Valsad.
3. Shri P.S. Meena, Dy. Chief Engineer, Western Railway, Mumbai.
4. The Gujarat Chamber of Commerce & Industries, Ahmedabad.
5. The Central South Gujarat Salt Manufacturers Association Bharuch
6. Akhil Gujarat Grahak Seva Kendra, Ahmedabad.
7. The Southern Gujarat Chamber of Commerce & Industry and Surat Citizens Council Trust, Surat
8. Shri Dinesh Parshottamdas Rathod, Rajkot.
9. The Gujarat Cold Storage Association, Ahmedabad.
10. Varacha Kapodara, A K Road Weavers Association and others, Surat.
11. Tax Payers Users' Consumers Association, Jamnagar.

The main objections are:

- Not to apply commercial tariff to rural consumers.
- Basis on which tariffs for different categories are proposed.
- Unreasonable upward revision in the tariff rates.
- Separate lower tariff for salt industry.
- Need for reasonable Railway traction tariff.
- Application of agricultural tariff to Cold Storage units.
- Uniform tariffs for the entire state is injustice to disciplined consumers and better performing DISCOMs. It is against letter and spirit of Electricity Act 2003.

Response of Licensee

The tariff as notified by the Commission is applied to the rural consumers. The tariff for different categories of consumers is proposed as per section 62(3) of Electricity Act 2003.

In addition to the power purchase cost, the DISCOMs have other expenses such as O & M cost and interest cost which have increased over the years. Considerable increase is there in the CAPEX for expanding and upgrading the network. The licensee is able to absorb significant increase in the purchase cost and other expenses by improving the internal efficiency by reduction of line losses, effective metering, billing and collection of revenues. The licensee cannot afford to absorb all the increased costs without seeking tariff rise. For all these reasons, increase in the base tariff is imperative.

Increase in the traction tariff is necessitated due to sharp increase in the power purchase costs on account of shooting up of the prices of coal, gas and other fuels. The freight costs of transportation of fuels have been increased substantially in the last couple of years. With the inflation rate around 9-10 %, there has been increase in the other cost components.

In the view of the provision under section 62 (3) of Electricity Act 2003, undue preferences cannot be shown to consumer / group of consumers while determining the tariff. Therefore, the demand of the salt Industry for separate lower tariff should not be considered.

Agricultural tariff is applicable to agricultural consumers for irrigation purpose and it cannot be applied to the cold storage category.

For overall development of the State, uniform tariff structure is desirable. While one part of the state is considerably developed with industrial consumers mix, another part of the state has large mix of agriculture consumers. In the light of the facts of socio – economic development of the State, it does not allow the complete rationalized tariff structure.

Commission's View

The commission has taken the relevant aspects into consideration and allowed the tariff revision to the extent essentially needed for the licensee to carry on its business.

3.9 NIGHT HOURS SUPPLY AND T.O.U CHARGES

The following consumers have raised issues relating the night hours supply and T.O.U charges.

1. The Gujarat Hi Tension Consumer Association.
2. The Borsad Industries Association.
3. The Gujarat Cold Storage Association, Ahmedabad.

The main objections are:

The objectives of extending night hours supply benefit to certain consumers.

- Extension of night hours benefit to LT consumers.
- At present reactive charges are recovered from consumers of 50 HP and above. Petitioner proposes to extend it to consumers of 10 HP above load, which puts burden on small consumers.

Response of Licensee

The objective of giving night benefit to the special category of HT consumers is to shift their demand to off-peak hours and help the grid to flatten the demand curve. Therefore the night hours concession is given on the energy consumption during night hours in excess of one third of the total energy consumption in a particular month. Since it is difficult for LT consumers to shift their demand to off-peak hours, the night consumption benefit cannot be extended to them.

The time of use charges are proposed in the petition for all consumers of HTP-I category. The intention is to make it applicable to many consumer categories in due course of time. The tariff structure is devised to allow recovery at higher rates for peak hours usage.

Commission's View

A decision is taken duly considering the views of objectors and the licensee. Night hours supply tariff is introduced to LT industry also.

3.10 THEFT OF ENERGY AND DIRECT HOOKING

The issues relating to the direct hooking of the lines and the theft of energy are raised by the following objectors.

1. Shri M.S. Dharodia, Wankaner.

2. The Gujarat Hi Tension Consumer Association.

3. The Mahagujarat Janta Party, Ahmedabad & Shri Fakirbhai Chauhan, Surat.

The main objections are that:

(i) there is direct hooking to the lines causing loss of revenue.

(ii) theft of power is not curbed and

(iii) the assessment made for energy theft is not accounted.

Response of Licensee

The company endeavors hard to curb energy leakage. It is very difficult to completely remove direct hooking from the network due to vast geographical area. However, to avoid direct hooking, the existing LT network is planned to be converted into High voltage distribution system in a phased manner. Efforts are also on to convert overhead lines into underground cables and providing aerial bunched conductors or coated conductors to reduce the menace of direct hooking. Every year about 2.7 lakh consumer installations are checked and action taken on power theft complaints.

The assessment made for theft of energy is accounted under the head “Other Income” and it is covered in the petition.

Commission’s View

The Commission directs that the company should make greater efforts to control theft of energy.

3.11 SECURITY DEPOSIT

The issue of Security Deposit and the interest thereof is raised by Shri Rajen Shah, President, Central South Gujarat Salt Manufacturers Association, Bharuch. The contention of the objector is that the interest on security deposit is not paid to the consumers.

Response of Licensee

Interest on Security Deposit is paid to the consumers as per the regulations notified by the Commission.

Commission’s View

The views of the objector and the licensee are noted.

3.12 POWER PURCHASE AND PPA ALLOCATION

The Objections on power purchase and PPA Allocation issues have been filed by the following consumers.

1. Shri Sunil Balakrishna Oza, Ahmedabad & Shri Fakirbhai C. Chauhan, Surat.

2. Shri Ghanshyam R. Darji, Vadodara.

3. Shri Sandeep P. Sankalpura, Valsad & 13 others.

The main issues raised are that the power purchase agreements are not as per norms and policy or rules, and the allocation of PPAs is not done properly.

Response of Licensee

All PPAs are approved by the Commission. Additionally, power purchase cost is also scrutinized by the Commission during the ARR exercise.

The PPA allocation is largely based on total availability of generation capacity, maximum demand of the company, MUs required to meet the energy requirement, etc.

Commission's View

The observations of the objectors are taken note of.

3.13 FUEL COST ADJUSTMENT (FCA)

The Fuel Cost Adjustment (FCA) and Fuel Price & Power Purchase Adjustment (FPPPA) issues have come up in the objections raised by the following consumers / consumer organizations.

1. The Gujarat Krushi Vij Grahak Suraksha Sangh, Visnagar.
2. The Gujarat Chamber of Commerce and Industry.
3. The Vapi Industries Association.
4. The Mahuva Chamber of Commerce & Industry.
5. Shri Ganashyam R. Darji, Vadodara.
6. The Ankleshwar Industries Association.
7. Varacha Kapodara, A K Road Weavers Association and others, Surat.

The main issues raised are:

(a) Ceiling in FCA charges to be fixed and increase in excess of the ceiling only to be passed on to the consumers.

(b) Merger of FPPPA charges of 12 paise.

(c) PPAs to provide for fixed rate binding on the generating companies insulating Discom from any higher purchase cost.

(d) The figures of FPPPA charges approved so far shall be audited by the Commission and based on the same, the conditional approval of FPPPA charges be given.

Response of Licensee

The fuel price and power purchase cost (FPPPA) is recovered based on the formula approved by the Commission. These charges are calculated on the basis of a quarter period of the year and become applicable for the next quarter period.

The average power purchase cost of first 6 months of FY 2007-08 is considered on expenditure side and FPPPA @ 12 Paise Per Unit on revenue side.

As far as recovery of FPPPA is concerned, the price increase of fuel is only partially allowed as FPPPA. The cost increase resulting due to increase in fixed cost and variable cost of approved power stations is only allowed under FPPPA.

Commission's View

The fuel surcharge is allowed only to the extent considered appropriate.

3.14 Delayed Payment Charges

The objection on the delayed payment charges has been raised by Shri Ghanshyambhai Darji, Vadodara.

The issues raised relate to the high rate of interest charged on the delayed payments.

Response of Licensee

Delayed payment charge is not 'interest', but it is a penalty for not paying the bill in time. This has serious implications on the cash flow of the company and therefore the delayed payment charges have to be higher than the short-term interest rate.

Commission's View

The surcharge is not interest and is a penalty and it is appropriate to levy penalty for delayed payment.

3.15 Agriculture metering and Consumption

The following objectors have filed objections on the metering of agricultural services and the assessment of agricultural consumption.

1. Gujarat Hi-Tension Consumer Association, Bhavnagar.
2. The Gujarat Chamber of Commerce and Industry.
3. Shri Ganashyam R. Darji, Vadodara.

The issues mainly relate to

- the methodology adopted in assessing agricultural consumption.
- the metering of agricultural consumption.
- supply of power to agriculture during day time.

Response of Licensee

The agricultural consumption is assessed on the basis of the average load observed for agricultural category consumer.

At the end of FY 2007-08, 46,529 agricultural consumers are unmetered out of 83,059 such consumers. The company endeavors hard for providing meters for the unmetered agricultural installations. However, at present no new service is released without a meter.

It is not possible to give power supply to agricultural consumers during day time since there is peak power deficit and the companies have to buy significantly more expensive power to meet the peak demand.

Commission's View

The views of the objector and the licensee are noted. The licensee is directed to provide meters to all unmetered services.

3.16 Golden Goals

The objections on the 'Golden Goals' have come up from the following consumers / consumer organizations.

1. The Gujarat Krishi Vij Grahak Suraksha Sangh.
2. The Gujarat Chamber of Commerce and Industry.
3. The Mahuva Chamber of Commerce and Industry.

The contents of the issues raised by the objectors are what Golden Goal is and how the expenditure relating to the "Golden Goal" is met by the petitioners.

Response of Licensee

The distribution companies have initiated the "Golden Goal" programme as a part of the Golden Jubilee Celebrations of the State of Gujarat. It is a Government of Gujarat's (GOG's) developmental scheme targeting the release of agricultural services and giving connections to BPL households. As the financial impact of the initiative is significant, financial support from GOG as also other agencies and adequate staff related measures by the company are required to make the scheme successful. Discoms have considered 100% grant funding from GOG for CAPEX related to giving BPL connections and 10% grant funding for releasing agricultural connections. Before finalising the petition, the company has consulted GOG on financing of this scheme. The company has assumed GOG support based on the discussions with GOG.

For releasing of any new connection of any category, the company does not recover the entire cost of providing connection. Company infuses its own equity and debt to meet the cost of setting up the network and providing the connection and it is required to be recovered over a period of time from the retail tariff.

Commission's View

The scheme requires the CAPEX support from the GOG by way of grant.

3.17 Recovery of meter rent and charges relating to resealing, reconnection, burnt meter, etc

The objections for the recoveries on various issues have been raised by the following.

1. Shri Surendra B. Mehta, Bhavnagar
2. Shri M. N. Trivedi & Shri V.R.Patel, Gandhinagar.
3. The Gujarat Chamber of Commerce and Industry.
4. Laghu Udyog Bharti, Ahmedabad.
5. The Gujarat Cold Storage Association, Ahmedabad.
6. The Ankleshwar Industries Association.

The main contentions of the objectors are:

- stop recovery of meter rent after the cost of meter is collected
- not to allow recovery of burnt meter charges, resealing and reconnection charges
- proposed reactive charges not to be allowed
- not to allow the increase in fixed charges

Response of Licensee

Meter rent is collected as per the provisions of the “Licensees power to recover expenditure incurred in providing supply and other Miscellaneous Charges Regulations – 2005” as notified by the Commission.

As per the GERC regulations, the security deposit will be adjusted towards the cost of burnt meter, in case the burning of the meter / metering system is due to causes attributable to consumer.

Reconnection charges are recovered from the consumer whose connection has been disconnected. These charges and resealing charges are collected as per the regulations of the GERC.

As per the “Electricity Supply Code and related matters Regulations”, consumers having motive power load of 2 KW or more shall have to connect power factor corrective equipment like shunt capacitor. It is the prime responsibility of every consumer to maintain the power factor of 0.9 or more. To maintain the grid discipline, we have proposed ‘reactive energy charge’ to be recovered from the consumer having 10 HP or more of contracted demand under LT industrial category. Company does not expect incremental revenues to be more than few lakhs on this account. It is difficult to anticipate how many units of reactive energy shall be assessed. Therefore, revenue is not projected.

As a basic commercial principle, all the fixed costs should be recovered through Fixed Charges. However, at present the company recovers very less amount as fixed charges. Therefore, and to meet the projected revenue requirement, company has proposed increase in Fixed and Energy Charges for the control period.

Commission’s view:

The recoveries as per the Regulations are allowed. Appropriate decision is taken by the Commission on the revision of fixed charges.

3.18 Non- Tariff Income

The objections on these issues have come from the following.

1. Shri Surendra B. Mehta, Bhavnagar
2. The Southern Gujarat Chamber of Commerce & Industry, Surat and Surat Citizens Council Trust
3. The Ankleshwar Industries Association
4. Varacha Kapodara, A K Road Weavers Association and others, Surat.

The main contention of the objection is that the projections are low compared to the actual non-tariff income for FY 2006-07.

Response of Licensee

The details of projected revenue from Non-Tariff Income for FY:2006-07 (Actual) & projected for FY: 2007-08 and during control period upto FY: 2010:11 is shown in Table 23 in MYT ARR petition. For FY: 2006-07 the same is shown at Rs.14005 lakhs (actuals) while for next years, up to FY: 2010-11, the same is shown at Rs.3752 lakhs. The subsidies, grants and APDRP aggregating to Rs.10253 lakhs (shown in Table 23), have not been considered for making projections during the control period as they may not be available.

Commission's View

The projections are reviewed by the Commission and appropriate amounts for the control period are considered.

3.19 New Substations

Shri M.N. Trivedi & Shri V.R. Patel of Gandhinagar have questioned the procedure followed in establishment of new sub-stations.

Response of Licensee

New Substations are established as per the load requirement of the respective areas. Company is supposed to give power supply within the voltage regulation limit notified by the Commission for respective voltage level.

Commission's View

The issue is taken note of.

3.20 Consumer Complaints and Functioning of Forums

The following objectors have raised issues on the consumer complaints

1. Shri Surendra B.Mehta, Bhavnagar.

2. Varacha Kapodara, A K Road Weavers Association and others, Surat.

The points raised are that:

- there is no proper mechanism to redress the consumer complaints.

- Delaying the redressal of complaints at Division level.

Response of Licensee

As per the notification of the GERC, the Company has formed the Consumer Redressal Committees [CRCs] at Division and Circle levels. Any consumer can register his complaints before these committees. Meeting of these Committees is being arranged on 10^{th} & 20^{th} of every month depending on number of complaints received. If the Consumer is not satisfied with the decision of the CRC, then he can appeal before the Consumer Grievances Redressal Forum of the Company functioning at the Corporate Office, DGVCL, Surat which is an independent forum constituted under the Regulations of the Commission. The Forum is headed by a Chairman and has three Members including one Independent Member from outside of the Company as per the directive of the Commission.

Commission's View

The Licensee has not explained the delays in grievance redressal at division level. It has to be ensured that the grievance redressal is done within the time limits prescribed.

3.21 Role of GUVNL

The Gujarat Chamber of Commerce and Industry has questioned the role of GUVNL and its impact on expenditure projections.

Response of Licensee

Gujarat Urja Vikas Nigam Ltd (GUVNL) does not charge any trading margin from the company (Licensee). Besides power purchase, GUVNL acts as the coordinating body for all six subsidiary companies and manages loan portfolios on behalf of the companies. In fact, any surplus it generates from the sale of power to Licensees is passed on to them by reduction in overall expenditure of GUVNL.

Commission's View

The role of GUVNL is well recognized.

3.22 Providing Service Wires

Shri M.N. Trivedi and Shri V.R. Patel of Gandhinagar have raised the issue of providing service wire of adequate capacity by the company.

Response of Licensee

Service wire for supplying power to the consumer is utilised as per the demanded load of the consumer. No charges are recovered in case of burning of service wire.

Commission's View

The observation of the licensee is noted.

3.23 General Issues

Regular payment of bill

Shri Babubhai Dhanabhai Zhalavadia wanted relief to be given to the regularly paying consumers. He also raised the issue of checking of meters by the company.

Response of Licensee

As per provisions of the Supply Code Regulations, each consumer has to pay his energy bill within the stipulated time. If a rebate is given to a consumer, it will increase the burden of the company and the same will be reflected in ARR of the company.

Meters duly tested and sealed are provided at the consumer's premises for recording the energy consumed. A consumer should not tamper the meter. In case of a dispute regarding accuracy of the meter, testing of meters is done as per the procedure under provisions of the Electricity Supply Code and Related Matters Regulations.

Commission's View

The issue of rebate to consumers paying their bills regularly is flagged for study and consideration.

Chapter 4

Analysis of ARR and Commission's Decisions

4.1 Energy Sales

Proper estimation of category-wise energy sales for the control period is essential to arrive at the quantum of power purchase and the likely revenue by sale of energy. This section examines in detail the customer category-wise energy sales projected by the DGVCL in its Multi Year Tariff petition for the control period 2008-09 to 2010-11 for approval of ARR.

4.2 Consumer Categories

DGVCL serves over 19 lakh consumers within its licensed area and the consumers are categoriesed as under:

LT Category:

- Residential
- Non-residential (Commercial)
- Educational Institutions
- Industrial – LT
  - Motive power
  - Laboratories and Research Institutions
- Agricultural (Irrigation pumpsets)
- Water works and sewerage pumping
- Public lighting / Street lighting

HT Category

- Industries and consumers not covered by other HT categories
- Commercial services
- Colonies, towns, shops etc., having predominantly lighting load
- Railway traction and workshops.

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

All the consumers other than agriculture are metered. Even the agricultural consumers who are connected since the last two to three years are being metered. However, majority of agricultural consumers (who were connected earlier) are un-metered and their consumption is assessed based on normative consumption approved by the Commission.

4.2.1 Overall Approach to sales projection

DGVCL has projected the energy sales for the control period based on actual sales data for the year 2006-07 which is taken as a base. The revenue forecast is based on the Audited Annual Accounts for the year 2006-07. It is stated that the historical trend method has proved to be reasonably accurate and a well accepted method to estimate the number of consumers, the connected load and the energy consumption.

DGVCL has therefore, estimated the consumers connected load and energy sales based on cumulative annual growth (CAGR) trends during the past years. Wherever the trend has seemed unreasonable or unsustainable, the growth factors have been corrected by the DISCOM to arrive at more realistic projections.

Where the past data is fairly accurate and the trends are well established, the trends based on past data is a well established method for energy forecast. **As such the trend method adopted by the DISCOM is accepted by the Commission.**

4.3 Category-wise projected energy sales for the control period 2008-11

DGVCL has furnished the category-wise energy sales over the last six years (2003-2008) based on actuals and projected the sales for the control period 2008-11 and also the underlying CAGR (5 years and 3 years) thereof. Category-wise sales, over the last 6 years as furnished by DGVCL are shown in Table 4.1 below:

Table 4.1

Historical trend in category-wise energy sales

MU

Tariff Category	02-03	03-04	04-05	05-06	06-07	07-08
LT consumers						
Residential	661	787	874	987	1121	1223
Commercial	252	295	330	356	395	448
Industrial LT	1591	1710	1911	1976	2136	2296
Public Lighting	19	19	24	23	25	26
Agriculture	851	494	509	522	527	529
Public Water works	53	61	62	68	75	83
LT Total	**3427**	**3366**	**3710**	**3932**	**4279**	**4605**
HT consumers						
Industrial HT	2417	2439	2683	2909	3052	**3115**
Railway traction	148	162	210	224	227	254
HT Total	**2564**	**2601**	**2893**	**3133**	**3279**	**3369**
Total	**5991**	**5967**	**6603**	**7065**	**7557**	**7974**

The category-wise growth rates as furnished by DGVCL are given in Table 4.2 below:

Table 4.2

Category-wise growth rates of energy sales

Tariff Category	CAGR (5 years)	CAGR (3 years)	YoY 06-07	YoY 07-08
LT consumers				
Residential	14.1%	13.3%	13.6%	8.6%
Commercial	11.9%	9.4%	11.0%	13.6%
Industrial LT	7.6%	5.7%	8.0%	7.1%
Public Lighting	6.9%	2.1%	10.4%	4.0%
Agriculture	(-) 11.3%	1.8%	1.0%	0.4%
Public Water works	9.2%	10.0%	9.5%	10.7%

Tariff Category	CAGR (5 years)	CAGR (3 years)	YoY 06-07	YoY 07-08
LT Total	**5.7%**	**7.4%**	**8.8%**	**7.5%**
HT consumers				
Industrial HT	6.0%	6.6%	4.9%	1.6%
Railway traction	11.4%	4.0%	1.5%	12.5%
HT Total	**6.3%**	**6.5%**	**4.6%**	**2.4%**
Total	**6.0%**	**7.0%**	**7.0%**	**5.6%**

Based on the above growth rates of energy sold DGVCL has projected the category-wise energy sales for the control period 2008-09 to 2010-11 as given in table 4.3 below:

Table 4.3

Projected Energy sales for the control period

(MU)

Tariff Category	2008-09 (Projected)	2009-10 (Projected)	2010-11 (Projected)
LT consumers			
Residential	1402	1603	1828
Commercial	491	537	587
Industrial LT	2525	2730	2923
Public Lighting	27	28	29
Agriculture	697	774	851
Public Water works	92	99	105
LT Total	5234	5771	6323
HT consumers			
Industrial HT	3288	3485	3694
Railway traction	268	279	290
HT Total	**3556**	**3764**	**3984**
Total	**8790**	**9535**	**10307**

4.4 Detailed analysis of energy sales projected

The category-wise energy sales given for the years 2003 to 2008 in Table 4.1 are the actuals. The energy sales for the control period 2008-09 to 2010-11 are projected based on 5 years / 3 years CAGR between the period 2002-03 and 2006-07 and 2005-07 and year on year (YoY) sales for the period between 2007 and 2008.

DGVCL has projected the sales for the control period mostly based on past trend considering 3 year CAGR.

Commission's view

The category-wise energy sales, projected by DGVCL for the control period as given in Table 4.3 are discussed below:

4.4.1 Residential

The sales to this category constitutes about 15.35% of total energy sales of the company in the year. DGVCL has projected the energy sales to residential category at 1402 MU for

2008-09, 1603 MU fro 2009-10 and 1828 MU for 2010-11. A growth of 13.3% (3 years CAGR) has been considered by the company over the energy sales for 2007-08. In addition, the company has added the consumption by BPL households proposed to be connected during the control period. The BPL households proposed to be connected and the estimated consumption is as given in Table 4.4 below:

Table 4.4

BPL Households proposed to be connected and energy consumption

Sl.No.	Particulars	2008-09	2009-10	2010-11
1	Number of new household connections (Nos.)	64986	50751	50745
2	Cumulative number of connections (Nos.)	64986	115737	166482
3	Total additional energy supplied (MUs)	23	42	60
4	Additional load added (MW)	6	12	17

As seen from Table 4.2 the growth rates witnessed over a 5 year and 3 year periods are 14.1% and 13.3% respectively, and the growth during 2006-07 over 2005-06 was 13.6% and that of 2007-08 over 2006-07 is 8.6%. DGVCL has considered a mid-term growth of 13.3% (3 year CAGR) which it expects to continue during the control period.

The YOY growth during 2006-07 was 13.6% and the growth during 2007-08 was however 8.6%. There is reduction in growth during 2007-08. The growth of 13.3% estimated by DGVCL is considered reasonable, as it is consistent with 5 year growth and growth during 2007 and hence it is approved. The projected consumption by BPL households as given in Table 4.4 is added to arrive at total consumption by residential category of consumers. DGVCL has estimated the energy consumption by BPL households at about 30 units / month per household which gives a consumption of one unit / day which is also reasonable.

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

Year	Energy (MU)	Growth Rate (%) (Includes sales to BPL households)
2008-09	**1402**	**14.6**
2009-10	**1603**	**14.3**
2010-11	**1828**	**14.0**

4.4.2 Commercial

The sale to this category constitutes about 5.5% of total sales of the company.

DGVCL has projected the energy sales to this category during the control period as under:

2008-09 491 MU

2009-10 537 MU

2010-11 587 MU

The company has considered a growth of 9.4% which is based on 3-year CAGR and it expects the same level of growth during the first control period.

AS seen from Table 4.2, there has been a growth of 11.9% during the 5 year period 2003-07, 9.4% during the 3 year period 2005 – 2007, and YOY growth of 11.0% during 2007 and 12.1% during 2008. The high growth of 11.9% (5 year growth) has not been sustained during the 3 year period. It is reasonable to consider the 3 year CAGR during the control period as growth of 11% may not sustain, in view of prevailing general recession.

The Commission, therefore, approves the energy sales to the commercial category during the control period as below:

Year	Energy (MU)
2008-09	491
2009-10	537
2010-11	587

4.4.3 Industrial (LT)

The consumption of this category accounts for about 28.8% of total energy sales of the company.

DGVCL has projected the sales of this category during the control period as below:

2008-09 2525 MU

2009-10 2730 MU

2010-11 2923 MU

The company has considered a growth of 8.4% based on the growth during 2007-2008. It is stated that there is a spurt in growth and expects a growth of 9.1% during 2008-09, 8.1% during 2009-10 and 7.1% during 2010-11. The five year (2003-07) CAGR of this category was 7.6%, and that of 3 year (2005-07) was 5.7%. The YOY growth rate during 2007 and 2008 were 8.0% and 7.1% respectively based on actual consumption furnished for 2007-08. The growth rate has come down from 7.6% during the 5 year period to 5.7% during the 3 year period, but picked up during 2007 & 2008. Since the company has experienced a spurt in growth during 2008-09 and expects to come to normal growth during 2009-10 and 2010-11. The growth assumed during 2008-09 is high at 9% but expects to be 8.0% and 7.1% during the next two years. Since this is in line with past growth, this is accepted by the Commission.

The Commission approves the energy sales to the industrial (LT) category during the control period as under:

Year	Energy (MU)
2008-09	**2525**
2009-10	**2730**
2010-11	**2923**

4.4.4 Public Lighting

The consumption of public lighting accounts for about 0.33% of total energy sales of the company. DGVCL has projected the sales for the control period for this category as below:

2008-09 - 27 MU

2009-10 - 28 MU

2010-11 - 29 MU

The company has considered a growth rate of 3.5%.

The growth of this category over a five year period (2003 to 2007) and 3 year period (2005-07) were 6.9% and 2.1% respectively. The YOY growth during 2006-07 and 2007-08 were 10.4% and 4.0%. The growth of this category was 2.1% over the 3 year period, but increased to 10.4% during 2006-07 and has come down again to 4.0% during 2007-08. The growth for public lighting is normally steady. The growth during 2006-07, might be due to connection of additional installations. This may not sustain. Hence the growth of 3.5% is considered reasonable as witnessed during the period 2005-07.

The Commission approves the sales to the public lighting during the control period as under:

2008-09 – 27 MU

2009-10 –28 MU

2010-11 – 29 MU

4.4.5 Agricultural (Irrigation Pumpsets)

The consumption by agricultural (irrigation pumpsets) category accounts for about 6.6% of total sales of the company. The consumption by irrigation pumpsets connected during recent years only are metered and those related to earlier years are not metered, DGVCL has projected the energy sales to this category during the control period as below:

2008-09 - 697 MU

2009-10 - 774 MU

2010-11 - 851 MU

The company has considered a growth of 1.0% based on the growth during the year 2006-07. The growth rate applied only for the metered category and the number of unmetered is constant as no more un-metered connections are being added. The consumption of un-metered category is arrived at 1700 kWh/HP/ annum as per norm prescribed by the Commission.

In addition to normal growth of consumers, it is stated by DGVCL that the State Government has set target for release of all pending agricultural connections under "Golden Goals" programme. The estimated release of additional connections would be as in Table 4.5 below:

Table 4.5
Pending Agricultural Connections

Release of pending Agriculture Connections	Unit	FY 2008-09	FY 2009-10	FY 2010-11
Number of New Agriculture Connections	Nos.	5240	5240	5240
Cumulative number of Connections	Nos.	5240	10480	15720
Additional sales	MUs	75.718	151.436	227.154
Additional Load Added	HP	44540	89080	133620
Additional Load Added	MW	33	66	100

As mentioned the growth approved is only for metered connections which had been varying between 2,000 to 3,000 / annum during the last 5 years. The other connections are un-metered which are 47,369 and no more un-metered connections are being added.

The 3 year (2005-07) growth rate is about 1.8% but the growth during 2006-07 is 1.0% and during 2007-08 it is about 0.4%. The company has taken 1% growth as number of services being added are only 2000 to 3000, this is accepted. The consumption by unmetered connections is assessed at 1700 kWh/HP/annum as specified by the Commission. The Commission approves the growth of 1% for metered connections and the norm of 1700 kWh/HP/annum for un-metered connections pending further study on the consumption of unmetered connections. The Commission also approved the release of additional connections during the control period.

A directive is again issued to obtain a realistic assessment of agricultural consumption. Pending the energy audit to arrive at realistic consumption by agricultural pumpsets, the consumption of unmetered connections is approved at normative level of 1700 kWh/HP/year. For metered services DGVCL has furnished the consumption of different categories in the MYT Petition. The consumption varies from 325 to 445 units/HP/year. It is submitted by DGVCL that metered consumption recorded does not reflect the correct consumption level for various reasons including theft of energy, tampering of meters etc. In view of this, average consumption of the metered categories of pumpsets in the four distribution companies is considered to arrive at the energy consumption by the additional agricultural connections under “Golden Goal” programme which works out to about 650 units /HP/year.

The average consumption of 650 units/HP/year is adopted for new connections – which have to be metered connections - to be released under “Golden Goal” programme. The consumption by agricultural category is given below in Table 4.6.

Table 4.6

Consumption of agricultural connections (Irrigation Pumpsets)

Sl. N.	Metered / Unmetered	Number of Consumers	Connected load (HP)	Energy Consumed (MU)
	Year 2008-09			
1.	Un-metered	47369	307643	523
2.	Metered	33559	252771	99
3.	New Connections (Metered).	5240	44540	28
4.	**Total**	**106168**	**604954**	**650**
	2009-10			
1	Un-metered	47369	307643	523
2	Metered	34512	267308	102
3	New Connections (metered)	10480	89080	56
4	**Total**	**112361**	**664031**	**681**
	2010-11			
1	Un-metered	47369	307643	523
2	Metered	35492	282679	103
3	New Connections (metered)	15720	133620	85
4	**Total**	**118581**	**723942**	**711**

The Commission approves the energy consumption by agricultural (irrigation pumpsets) category during the control period as below:

Year	Energy (MU)
2008-09	650
2009-10	681
2010-11	711

4.4.6 Public Water Works

The energy sales to this category accounts for about 1% of total energy sales of the company. DGVCL has projected the sales to this category during the control period as below:

Year	Energy (MU)
2008-09	92 MU
2009-10	99 MU
2010-11	105 MU

The company assumed a growth of 10.0% based on the growth during 2006-07 for 2008-09 and 7% growth during the next two years of control period stating that the growth of 10% may not sustain.

The 5 year CAGR (2003-07) of this category was 9.2%. It has marginally gone up to 10% during the 3 year period. The growth during 2006-07 was 9.5% and it is 10.7% during 2007-08.

As mentioned by DGVCL, the growth of this category may not grow beyond certain level and is likely to be steady. The growth of 10% based on the past trend for 2008-09 and sustained growth of 7% during the next two-years is approved. The consumption of this category being only 1% of total demand, marginal variation may not make any impact on the total consumption.

The Commission approves the sales to public water works during the control period as below:

Year	Energy (MU)
2008-09	92
2009-10	99
2010-11	105

4.4.7 Industrial HT

The sales to this category accounts for about 39% of the total sales of the company.

DGVCL has projected the sales to this category during the control period as below:

2008-09	3288 MU
2009-10	3485 MU
2010-11	3694 MU

The consumption is assessed by the company at a growth rate of 6% during the control period 2008-09 to 2010-11 based on past 5-year and 3-year trend.

The 5 year CAGR was 6.0% and that of 3 year as 6.6%.

Based on the potential for growth in the area, the 6% growth is approved.

The Commission approves the energy sales to HT industry during the control period as below:

Year	Energy (MU)
2008-09	3288
2009-10	3485
2010-11	3694

4.4.8 Railway Traction

The Railway traction load accounts for about 3.2% of total sales. DGVCL has projected the sales to this category during the control period as below.

Year	(MU)
2008-09	268
2009-10	279
2010-11	290

The company has assumed the sales growth of 5% during 2008-09 and 4.0% during the next two years of the control period in line with the past growth.

The 5 year CAGR upto 2007-08 was 11.4% and the 3 year CAGR was 4.0%. The growth during 2006-07 was only 1.5%, but has gone up to 12.0% during 2007-08 due to onetime addition of load. This level of growth may not sustain. It is stated by DGVCL that based on the discussion with railway personnel, there would be growth of 5.0% during 2008-09 and would witness a growth of 4.0% during the next two years.

Since the assessment is based on discussions with the railways, and is a single consumer, the sales projected by DGVCL is approved. The Commission approves the sales to railway traction as below.

Year	(MU)
2008-09	268
2009-10	279
2010-11	290

4.4.9 Total Energy Sales

Total energy sales as projected by DGVCL and as approved by the Commission during the control period is given in Table 4.7 below:

Table 4.7

Total Energy Sales

Sl. No.	Consumer category	Energy sales projected by DGVCL			Energy Sales approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	LT consumers						
1.	Residential	1402	1603	1828	1402	1603	1828
2.	Commercial	491	537	587	491	537	587
3.	Industrial LT	2525	2730	2923	2525	2730	2923
4.	Public Lighting	27	28	29	27	28	29
5.	Agriculture	697	774	851	650	681	711

Sl. No.	Consumer category	Energy sales projected by DGVCL			Energy Sales approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
6.	Public water works	92	99	105	92	99	105
	LT Total	**5234**	**5770**	**6323**	**5187**	**5678**	**6183**
	H.T Consumers						
7.	Industrial HT	3288	3485	3694	3288	3485	3694
8.	Railway Traction	268	279	290	268	279	290
9.	**HT Total**	**3556**	**3764**	**3984**	**3556**	**3764**	**3984**
10.	**Grand Total**	**8790**	**9533**	**10307**	**8743**	**9442**	**10167**

4.5 Distribution Losses

DGVCL has furnished the distribution losses for the year 2007-08 and loss trajectory for the control period 2008-09 to 2010-11 as under:

	2007-08	2008-09	2009-10	2010-11
Distribution Loss (%)	15.45	14.45	13.45	12.45

The company in their tariff petition for 2007-08 had projected certain loss trajectory. The loss trajectory approved by the Commission and actual loss level achieved are as below

Year	Target fixed by the Commission	Actual achieved
2006-07	16.59 %	16.52 %
2007-08	15.59 %	15.45 %

The company has narrated a number of measures taken to reduce the losses by improving the distribution system and restrict the opportunity of power theft etc. The steps proposed to be taken are narrated in detail in the MYT Petition under the following heads to reduce technical losses and commercial losses.

- Laying underground cables in a big way in Surat city
- Use of Aerial bunched cables in theft prone areas
- Bifurcation of loaded feeders
- Shifting of meter points to outside the premises to prevent tampering of meters
- Replacement of meters
- Installation of remote metering etc.

Due to various measures proposed to be taken to improve the system, the company proposes to reduce the loss level by 1.0% every year during the control period. The company projects the loss trajectory as under.

Year	Distribution loss (%)
2007-08	15.45
2008-09	14.45
2009-10	13.45
2010-11	12.45

This is in line with the recommendations of the Committee on Restructuring of APDRP. The recommendation is that loss reduction could be 1% per year when loss level of the system is below 20%.

The Commission approves the loss trajectory for the control period as under in Table 4.8.

Table 4.8

Distribution loss approved by the Commission

Year	Distribution loss (%)
2008-09	14.45
2009-10	13.45
2010-11	12.45

4.6 Energy Requirement

The total energy requirement of the Distribution Company to meet the total demand of its consumers would be the sum of estimated energy sales and the system losses (Distribution loss) as approved by the Commission. The estimated energy sales, the distribution loss and estimated energy requirement for the control period (2008-09 to 2010-11) would be as given in Table 4.9 below:

Table 4.9

Energy Requirement during the control period

(MU)

Sl. No.	Particulars	As projected by DGVCL			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	Estimated Energy Sales	8790	9533	10307	8743	9442	10167
2	Distribution loss (%)	1485 (14.45)	1482 (13.45)	1466 (12.45)	1477 (14.45)	1467 (13.45)	1446 (12.45)
3	Energy input required to the distribution system	10275	11015	11773	10220	10909	11613

4.7 Energy Balance

The summary of Energy balance projected by DGVCL is as below

Table 4.10

Summary of Energy Balance projected by DGVCL

(MU)

Sl.No.	Particulars	2008-09	2009-10	2010-11
1.	Energy Demand	8790	9533	10307
2.	Distribution loss (%)	14.45	13.45	12.45
3.	Energy Requirement	10275	11015	11773
4.	Transmission loss (%)	4.09	4.04	3.99
5.	Total units to be input to the Tr. System	10713	11479	12262
6.	Pooled losses	203	159	219
7.	Total input for power	10916	11638	12482
8.	Energy drawn and billed by GUVNL	10916	11638	12482

Commission's view:

The Commission has examined the energy balance worked out by DGVCL. The company has considered the transmission loss as projected by GETCO in the MYT petition for 2008-09 to 2010-11 and the pooled loss (Regional power loss) as determined by the RLDC/WBREB. The transmission loss in GETCO system and pooled loss are accepted as projected by DGVCL subject to review in the true up of 2008-09. The energy balance is worked out in accordance with the energy sales and distribution losses approved by the Commission in Table 4.7 and Table 4.8 above as in Table 4.11 below:

Table 4.11

Energy Balance approved by the Commission

(MU)

Sl.No.	Particulars	2008-09	2009-10	2010-11
1.	Energy demand	8743	9442	10167
2.	Distribution loss (MU) (%)	1477 (14.45)	1467 (13.45)	1446 (12.45)
3.	Energy requirement	10220	10909	11613
4.	Transmission loss	436	459	482
5.	Loss (%)	(4.09)	(4.04)	(3.99)
6.	Energy input to transmission system	10656	11368	12095
7.	Pooled loss	203	159	219
8.	Total energy requirement	10859	11527	12314

The energy requirement as projected by DGVCL and as approved by the Commission during the control period are given in Table 4.12 below:

Table 4.12

Total Energy Requirement approved by the Commission

(MU)

Year	As projected by DGVCL	Approved by the Commission
2008-09	10916	10859
2009-10	11638	11527
2010-11	12482	12314

The energy requirements approved by the Commission have to be met by energy drawal / purchase from GUVNL.

The quantum of purchase from various generating stations and the costs are discussed later.

4.8 Revenue Requirement – 2008-09 to 2010-11

DGVCL has projected the Aggregate Revenue Requirement for the control period at Rs.396081 lakh, Rs.459590 lakhs and Rs.498846 lakhs for the year 2008-09, 2009-10 and 2010-11 respectively. The expenses under each head are given in Table 4.13 below:

Table 4.13
Expenses projected for the control period

(Rs. lakhs)

Sl. No.	Aggregate Revenue Requirement	FY 2008-09	FY 2009-10	FY2010-11
1.	Total Cost of Power Purchase	355863	413915	447722
2.	O & M Costs	23053	25358	27894
3.	Depreciation	5816	6821	7761
4.	Interest on Loans & Finance Charges	8551	9446	10231
5.	Interest on Working Capital	3717	4148	4542
6.	Other Debits	99	104	109
7.	Extraordinary Items	2120	2120	2120
8.	Provision for bad debts	387	434	475
9.	*Less Interest & Expenses Capitalised*	5078	5078	5078
10.	Sub Total	394528	457267	495775
11.	Return on Equity	5190	5948	6683
12.	Provision for Tax	115	127	139
13.	Total Expenditure	399833	463342	502598
14.	Less: non tariff income	3752	3752	3752
15.	**Aggregate revenue requirement**	396081	459590	498846

4.9 The Projected expenses by DGVCL and Decisions of the Commission

The projected expenses by DGVCL under each head and the analysis and decisions of the Commission are discussed below:

4.9.1 Power Purchase Cost

As discussed in para 4.6 and 4.7 above, the energy requirement of DGVCL at the interface point with GETCO and at the generation bus after considering approved transmission loss and pooled loss in the Regional network would be as in Table 4.14 below:

Table 4.14

Regional Network

Year	Energy at Interface point	Energy at Generation Bus
2008-09	10656	10859
2009-10	11368	11527
2010-11	12095	12314

The cost of power purchase estimated by DGVCL includes transmission charges of GETCO, pooled costs of PGCIL and GUVNL costs. The energy has to be purchased from various sources as allotted in the bulk power purchase agreement by all the DISCOMs with GUVNL.

4.9.1.1 Allocation of Capacities / PPAs

It is submitted by the DGVCL in the MYT petition that the company has been currently allocated the PPAs as per the scheme as given in Table 4.15 below. Some of the stations listed are not currently commissioned, but are expected online during the control period.

Table 4.15

Details of PPAs/Stations Allocated to DGVCL

Allocated Generation Capacity from Stations	*MW*
Sikka TPS	120
Kutch Lignite I to III	54
Dhuvaran oil	100
Kadana Hydro	121
Utran Gas Based	14
Dhuvaran Gas Based - Stage-I	34
Dhuvaran Gas Based - Stage-II	101
Utran Extension *	94
ESSAR	90
GPEC	352
GIPCL II (160)	140
GSEG	16
GIPCL, Expansion	188
GSPC-Pipavav*	90
NPC - Tarapur- 3&4	205
NTPC – KAWAS	140
NTPC – JHANOR	119
NTPC – Kahalgoan	41
NTPC Barh *	130
NTPC North Karanpura *	39
Sipat Stage-I *	270
Wind Farms (Old Policy)	5
Wind Farms (New Policy)	148
Bagasse	3
APPL *	350

*Stations to be commissioned.

4.9.1.2 Merit Order Dispatch

It is submitted by DGVCL that in order to minimize the power purchase cost, it has worked out a comprehensive merit order dispatch (MOD) following the same principles in accordance with the previous tariff order of the Commission from the dispatch available from its capacity / PPA allocated generating stations.

The Nuclear Power Corporation (NPC) power plant at Tarapore and hydro power plant at Kadana have been considered as must run power plants, and hence they have been excluded from merit order dispatch. The dispatch from individual generating stations is worked out based on the merit order (based on the variable cost) of each generating unit / station.

4.9.1.3 Power Purchase Costs projected for the control period

Based on the allocated capacities and the merit order stacking as described above, the station-wise power purchase quantum and costs are depicted below in Table 4.16, 4.17 and 4.18 for each year of the control period.

Table 4.16

Power Purchase for FY 2008-09

DGVCL: Power Purchase for FY 2008-09	Capacity allocated to Discom (MW)	Units Available (MU)	Units Dispatched (MU)	Fixed Cost (Rs Laks)	Variable Cost (Rs. Lakhs)	Transmission Charges (Rs. Lakhs)	PGCIL Charges (Rs. Lakhs)	Incentive (Rs. Laks)	Total Cost (Rs .Lakhs)	Per Unit Cost (Rs./ Unit)
Sikka TPS	120	704	704	4508	14563	993	0	0	20064	2.85
Kutch Lignite I to III	54	293	293	4145	3329	442	0	0	7916	2.70
Dhuvaran oil	100	465	228	3569	9216	820	0	0	13604	5.97
Kadana Hydro	121	72	72	4056	0	1108	0	0	5164	7.14
Utran Gas Based	14	88	88	448	1596	119	0	0	2162	2.47
Dhuvaran Gas Based - Stage-I	34	223	223	1423	4350	302	0	0	6075	2.73
Dhuvaran Gas Based - Stage-II	101	681	204	5630	7170	900	0	0	13699	6.71
ESSAR	90	612	612	3332	12297	809	0	191	16629	2.72
GPEC	352	2393	1955	24658	48280	3164	0	748	76850	3.93
GIPCL II (160)	140	953	953	4494	16380	1259	0	0	22133	2.32
GSEG	16	106	106	1152	1571	140	0	0	2864	2.70
GIPCL, Expansion	188	608	608	6570	10635	803	0	0	18009	2.96
NPC-Tarapur- 3&4	205	1363	1363	0	37218	1801	702	490	40210	2.95
NTPC – KAWAS	140	999	300	7813	9251	1320	515	359	19257	6.43
NTPC - JHANOR	119	836	836	5983	14437	1105	431	300	22256	2.66
NTPC - Kahalgoan	41	267	267	2483	3232	353	138	0	6206	2.32
Sipat Stage-I	270	1750	1750	12614	29754	2314	902	0	45584	2.60
Wind Farms (Old Policy)	5	10	10	5	179	7	0	0	190	1.87
Wind Farms (New Policy)	106	213	213	0	7176	140	0	0	7316	3.44
Bagasse	3	34	34	6	1024	7	0	0	1037	3.04
RELIANCE INDUSTRIES LTD.NARODA		48	48	0	1134	64	0	0	1198	2.47
UNITED PHOSPHOROUS LTD. JHAGADIA		0	0	0	0	0	0	0	0	0.13
GUJARAT ALKALIS & CHEMI. LTD. BARUCH		16	16	0	317	21	0	0	339	2.10
ONGC Anlkeshwar		13	13	0	251	17	0	0	268	2.03
ONGC, Hazira		5	5	0	90	6	0	0	97	2.03
M/S ADANI EXPORT (PHILIPS CARBON)		16	16	0	326	22	0	0	348	2.14
M/s Arvind Mills LTD		0	0	0	0	0	0	0	0	0.13
Total	**2218**	**12768**	**10916**	**92888**	**233776**	**18037**	**2687**	**2088**	**349476**	**3.20**

Table 4.17

Power Purchase for FY 2009-10

DGVCL: Power Purchase for FY 2009-10	Capacity allocated to Discom (MW)	Units Available (MU)	Units Dispatched (MU)	Fixed Cost (Rs Laks)	Variable Cost (Rs. Lakhs)	Transmi-ssion Charges (Rs. Lakhs)	PGCIL Charges (Rs. Lakhs)	Incentive (Rs. Lacs)	Total Cost (Rs .Lakhs)	Per Unit Cost (Rs./ Unit)
Sikka TPS	120	704	211	4508	4369	1015	0	0	9892	4.68
Kutch Lignite I to III	54	293	293	4145	3329	452	0	0	7926	2.71
Dhuvaran oil	100	465	228	3569	9216	839	0	0	13623	5.98
Kadana Hydro	121	72	72	4056	0	1134	0	0	5190	7.18
Utran Gas Based	14	88	26	448	479	122	0	0	1048	3.98
Dhuvaran Gas Based - Stage-I	34	223	67	1423	1305	309	0	0	3037	4.55
Dhuvaran Gas Based - Stage-II	101	681	204	5630	7170	921	0	0	13720	6.72
Utran Extension	94	461	138	4650	2917	862	0	0	8428	6.10
ESSAR	90	612	489	3332	9838	827	0	0	14188	2.90
GPEC	352	2393	1915	24658	47295	3236	0	0	75938	3.97
GIPCL II (160)	140	953	762	4494	13104	1288	0	0	18886	2.48
GSEG	16	106	106	1152	1571	144	0	0	2867	2.70
GIPCL, Expansion	188	1215	972	13140	17016	1643	0	0	31800	3.27
NPC - Tarapur- 3&4	205	1363	1363	0	37218	1842	737	490	40287	2.96
NTPC – KAWAS	140	999	300	7813	9251	1350	540	359	19313	6.45
NTPC - JHANOR	119	836	251	5983	4331	1130	452	300	12197	4.86
NTPC - Kahalgoan	41	267	267	2483	3232	361	145	92	6313	2.36
Sipat Stage-I	270	1750	1354	18922	23016	2366	947	0	45251	3.34
Wind Farms (Old Policy)	5	9	9	0	155	7	0	0	162	1.83
Wind Farms (New Policy)	127	222	222	0	7487	171	0	0	7659	3.45
Bagasse	3	21	21	0	618	5	0	0	622	3.02
APPL	350	2269	2269	32647	33554	438	0	0	66638	2.94
RELIANCE INDUSTRIES LTD.NARODA	0	48	48	0	1134	66	0	0	1200	2.48
UNITED PHOSPHOROUS LTD. JHAGADIA	0	0	0	0	0	0	0	0	0	0.14
GUJARAT ALKALIS & CHEMI. LTD. BARUCH	0	16	16	0	317	22	0	0	339	2.10
ONGC Anlkeshwar	0	13	13	0	251	18	0	0	269	2.04
ONGC, Hazira	0	5	5	0	90	6	0	0	97	2.04
M/S ADANI EXPORT (PHILIPS CARBON)	0	16	16	0	326	22	0	0	348	2.14
M/S Arvind Mills LTD	0	0	0	0	0	0	0	0	0	0.14
Total	**2683**	**16099**	**11638**	**143051**	**238589**	**20596**	**2821**	**2180**	407237	3.50

Table 4.18

Power Purchase for FY 2010-11

DGVCL: Power Purchase for FY 2010-11	Capacity allocated to Discom (MW)	Units Available (MU)	Units Dispatched (MU)	Fixed Cost (Rs Lakhs)	Variable Cost (Rs. Lakhs)	Transmi-ssion Charges (Rs. Lakhs)	PGCIL Charges (Rs. Lakhs)	Incentive (Rs. Lakhs)	Total Cost (Rs Lakhs)	Per Unit Cost (Rs./ Unit)
Sikka TPS	120	704	211	4508	4369	1191	0	0	10068	4.77
Kutch Lignite I to III	54	293	293	4145	3329	531	0	0	8005	2.73
Dhuvaran oil	100	465	228	3569	9216	984	0	0	13769	6.04
Kadana Hydro	121	72	72	4056	0	1330	0	0	5386	7.45
Utran Gas Based	14	88	26	448	479	143	0	0	1069	4.06
Dhuvaran Gas Based - Stage-I	34	223	67	1423	1305	362	0	0	3090	4.63
Dhuvaran Gas Based - Stage-II	101	681	204	5630	7170	1080	0	0	13879	6.79
Utran Extension	94	637	191	6454	4037	1011	0	0	11502	6.02
ESSAR	90	612	489	3332	9838	971	0	191	14331	2.93
GPEC	352	2393	1915	24658	47295	3797	0	748	76499	4.00
GIPCL II (160)	140	953	762	4494	13104	1511	0	0	19109	2.51
GSEG	16	106	106	1152	1571	169	0	0	2892	2.72
GIPCL, Expansion	188	1215	365	13140	6381	1928	0	0	21449	5.88
GSPC-Pipavav	90	30	9	246	193	926	0	0	1365	14.97
NPC - Tarapur-3&4	205	1363	1363	0	37218	2162	701	490	40570	2.98
NTPC – KAWAS	140	999	300	7813	9251	1584	514	359	19520	6.52
NTPC – JHANOR	119	836	251	5983	4331	1326	430	300	12370	4.93
NTPC – Kahalgoan	41	267	267	2483	3232	424	137	96	6373	2.39
NTPC – Bath	130	843	843	9110	14326	1337	433	0	25207	2.99
NTPC – North Karanpura	39	250	250	2698	4243	396	128	0	7465	2.99
Sipat Stage-I	270	1750	1601		27210	2777	900	0	49808	3.11
Wind Farms (Old Policy)	5	9	9	18922	155	8	0	0	163	1.84
Wind Farms (New Policy)	127	259	259	0	8734	235	0	0	8969	3.46
Bagasse	3	34	34	0	1024	9	0	0	1033	3.03
APPL	350	2269	2269	0	033554	514	0	0	65991	2.91
RELIANCE INDUSTRIES LTD.NARODA	0	48	48	31923	1134	77	0	0	1211	2.50
UNITED PHOSPHOROUS LTD. JHAGADIA	0	0	0	0	0	0	0	0	0	0.16
GUJARAT ALKALIS & CHEMI. LTD. BARUCH	0	16	16	0	317	26	0	0	343	2.13
ONGC Anlkeshwar	0	13	13	0	251	21	0	0	272	2.06
ONGC, Hazira	0	5	5	0	90	8	0	0	98	2.06
M/S ADANI EXPORT (PHILIPS CARBON)	0	16	16	0	326	26	0	0	352	2.16
M/S Arvind Mills LTD	0	0	0	0	0	0	0	0	0	0.16
Total	**2942**	**17449**	**12482**	**156187**	**253682**	**26861**	**3243**	**2184**	**442157**	**3.54**

4.9.1.4 Transmission Charges

The transmission charges payable to GETCO by DGVCL as projected by DGVCL are given in Table 4.19 below. It is stated that the transmission charges to GETCO are calculated as proposed by GETCO in its Multi Year Tariff petition for the control period.

Table 4.19

Transmission Charges of GETCO and DGVCL

(Rs. lakhs)

Transmission charges	2008-09	2009-10	2010-11
GETCO charges	18037	20596	26861
PGCIL charges	2687	2821	3243
Total Transmission charges	**20724**	**23417**	**30104**

4.9.1.5 GUVNL Cost

It is submitted that GUVNL is entrusted with the operation of supplying power to bulk licensees and the overall coordination between its subsidiary companies. It also undertakes the function of raising and managing the overall loan portfolio of GUVNL and its subsidiaries.

The revenue gap, if any, of GUVNL is also to be recovered through the four DISCOMs.

It is stated that for projecting GUVNL revenue for the control period, the existing GERC approved tariff for the three licensees namely Kandla Port Trust, TPL (Surat), TPL (Ahmedabad) has been considered. Since TPL is likely to have their own additional generation TPL may reduce their off-take from GUVNL from FY 2008-09. Based on this the energy likely to be sold to them is reduced proportionately. However it has also been assumed that GUVNL shall be able to find a suitable replacement for the quantum of energy not purchased by TPL for the projected level of 2007-08. The sale of this energy has been assumed to be at the cost plus a trading margin of 4 paise per unit. The power purchase cost has been calculated as per the parameters proposed by GSECL in its tariff petition for the stations allocated to GUVNL. The employees expenses of GUVNL have been escalated by 10% while the A&G expenses have been escalated at 5% year on year.

It is also stated that as per the current projections of demand and supply the four DISCOMs would have some surplus energy during each year of the control period during off peak hours only. It can be assumed that 10% of surplus being projected for a particular year will be traded at a marginal cost plus a Rs.0.04 per unit trading margin. This has been included in the projection of GUVNL's expenses and revenues. Thus the DISCOMs would be able to recover some of the fixed costs they pay for the allocated capacity from the revenues from trading. The projections of GUVNL sale to the licensees and trading and GUVNL cost allocation for the control period and the revenue from sale of power are given in Tables-4.20 and 4.21 below:

Table 4.20

Projections of GUVNL's sale to licensees and trading

Sale of Licensees-	Unit Rate	2007-08	2008-09	2009-10	2010-11
Total MUs Sold to AEC & SEC	Rs. 2.78/ unit	4530	4530	2619	0
Total MUs Sold to KPT	Rs. 3.20/ unit	15	15	15	15
Total MUs Sold to others	Rs. 3.24/ unit	0	0	1912	4530
Total MUs traded of Discom's Surplus			1387	950	972
Per Unit Rate for Trade (including trading margin) (Rs. / Unit)			3.13	2.67	2.58
Total Mus Sold		**4545**	**5932**	**5495**	**5517**

Table 4.21

GUVNL Cost Allocation for the control period

GUVNL Cost Allocation (Rs. Lacs)	2007-08	2008-09	2009-10	2010-11
Revenues				
Revenue from sale of power to AECO	38390	55749	32225	0
Revenue from sale of power to SECO	94259	76368	44143	0
Revenue from sale of power to KPT	569	569	569	569
Revenue from sale of power to others	7353	0	61264	146646
Revenue from trade of Discom's surplus		43436	25354	25116
Other Income	14603	14603	14603	14603
Total Revenue from sale of power (A)	155174	190725	178158	186933
Expenditure				
Power purchase cost as per PPA allocation	149370	149293	149459	150922
Average Variable cost of Discom's surplus Traded Power		29270	16801	17558
Employee Costs	1688	1856	2042	2246
Admin & General Expenses	17735	18621	19552	20530
Depreciation	655	655	655	655
Interest and financial charges	18325	18325	18325	18325
Share of E- Urja Utilization Charge		97	97	97
Total Expenses (B)	**187772**	**218118**	**206931**	**210333**
Amount of Cost allocation (C=B-A)	**32599**	**27393**	**28773**	**23400**

The gap between revenue and expenditure calculated above has been allocated to the four DISCOMs, on the basis of the power purchase for the particular year as given in Table 4.22 below:

Table 4.22

GUVNL cost allocation of DISCOMs

(Rs. Lakhs)

Years	PGVCL	UGVCL	MGVCL	DGVCL	Total
2007-08	12646	8929	4212	6811	**32599**
2008-09	10692	7324	3592	5785	**27393**
2009-10	11355	7504	3839	6075	**28773**
2010-11	9285	5979	3174	4963	**23400**

It is also submitted by DGVCL that GUVNL has taken the assets created for the end to end ERP solutions E-Urja being implemented across all companies of GUVNL on its books. The revenue costs, such as depreciation, interest payment on the loans for the project and the annual maintenance charges shall be allocated to the seven companies including GUVNL in the percentage of number of licenses provided to each company for usage of the ERP package. The estimated annual recurring cost and the company's share of the same payable every year are given below:

Table 4.23

Annual recurring cost of E-Urja

Annual Recurring Cost of E-Urja	**Rs. Lakhs**
Depreciation	2826
Interest Cost	2136
AMC	960
Total Annual Expenditure	**5923**
Percentage of total licenses with Company	10.20%
Allocation to the company	602.60

The total cost of power purchase for the company for the control period comes to the power purchase cost through merit order plus the DISCOM's allocation of GUVNL's revenue gap as shown below

Table 4.24

Total cost of power purchase

(Rs. Lakhs)

Total Cost of power purchase DGVCL	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Power purchase cost from merit order	330219	349476	407237	442157
GUVNL Cost + E-Urja charge	7414	6387	6677	5565
Total	**337633**	**355863**	**413915**	**447722**

Power Purchase Cost – Commission's Analysis

4.10.1 Allocation of Capacities / PPAs

GUVNL is a holding company of the restructured successor companies, and is also entrusted with trading of electricity. It purchases power from various sources and supplies to the four distribution companies and also to the bulk distribution licensees in Gujarat. GUVNL is a wholly owned company of the Government of Gujarat and entered into bulk supply agreements with the four distribution companies. The supply agreement is approved by the Board of Directors of GUVNL and the Managing Directors of the four Distribution Companies. It is not known whether the State Government has approved the allocation. The DISCOMs with adverse load mix may require State Government support and the allocation is to minimize such support. Under clause-3 of the Bulk Supply agreement, the contracted generation capacities of GUVNL have been allocated to the four DISCOMs. Certain generating capacity is retained with GUVNL from which it supplies power to the three licensees.

The tariff for GUVNL's sale of power to DISCOMs shall be same as that of purchase of power by GUVNL from the respective generating stations.

Apart from the tariff payment GUVNL shall also charge transmission charges and a margin to cover its own operating expenses. GUVNL proposes an Aggregate Revenue Requirement (ARR) based on projections for the control period, other than power purchase and sales.

The ARR as approved by the Apex Coordination Committee shall be payable by the DISCOMs and shall form part of the power purchase cost.

Prior to unbundling, all the utilities in the State were receiving supply from the pool of energy in the State grid. The cost of the pooled energy is the weighted average of the generation costs of individual stations feeding the grid. After restructuring, the Distribution areas of erstwhile GEB have come under the control of the four distribution licensees namely (1) PGVCL (2) UGVCL (3) MGVCL and (4) DGVCL. The newly created DISCOMs do not have uniform consumer load mix. PGVCL and UGVCL have higher percentage of Agricultural load comparative to the other two.

The two DISCOMs with high agricultural loads may face revenue deficit. To get over this problem GUVNL has allocated low cost PPAs (Stations) to PGVCL and UGVCL and the high cost PPAs (Stations) are allocated to MGVCL and DGVCL.

The intent and purpose of the allocation of PPAs as above is to see that the retail consumers of various categories will be charged on an average the same rates all over the State. There is marginal change in the allocation of PPAs / stations to DGVCL during the control period compared to allocation during 2007-08. Certain additional stations are included for the control period to meet the additional demand, other-wise most of the earlier stations are retained.

The intention of the allocation is to have uniform tariff to different categories of consumers in all the four distribution company areas which have different consumer load mix. The Tariff Policy also suggests such allocation of PPAs to have uniform tariff in all the companies in the transition period.

Para 8.4.2 of 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 Government may make such assignments taking care of different load profiles of the distribution companies so that retail tariff are uniform in the state for different categories of consumers. Thereafter the retail tariff would reflect the relative efficiency of distribution companies in procuring power at competition costs, controlling theft and reducing other distribution losses"

The Commission considers that such allocation of PPAs based on consumer load mix of the distribution companies is appropriate during the transition period and approves the allocation. However, GUVNL will be directed to firm up the allocation.

Table 4.25

Capacities / PPA allocated to DGVCL

Allocated Generation Capacity from Stations	*MW*
Sikka TPS	120
Kutch Lignite I to III	54
Dhuvaran oil	100
Kadana Hydro	121
Utran Gas Based	14
Dhuvaran Gas Based - Stage-I	34
Dhuvaran Gas Based - Stage-II	101
Utran Extension	94
ESSAR	90
GPEC	352
GIPCL II (160)	140
GSEG	16
GIPCL, Expansion	188
GSPC-Pipavav	90
NPC - Tarapur- 3&4	205
NTPC – KAWAS	140
NTPC – JHANOR	119
NTPC – Kahalgoan	41
NTPC Barh	130
NTPC North Karanpura	39
Sipat Stage-I	270
Wind Farms (Old Policy)	5
Wind Farms (New Policy)	148
Bagasse	3
APPL	350

The total allocation in MW works out to 2964 MW and the company has worked out the merit order dispatch based on variable cost of these stations to minimize the costs. The Commission has analysed the quantum of energy proposed to be purchased from each source and the costs projected by DGVCL. The energy required to be purchased by DGVCL is discussed in para 4. 7 (Table 4.12). The quantum of energy required to be purchased by DGVCL as approved by the Commission is given in Tables 4.11 & 4.12.

Purchase in Merit Order

The generating stations are organized in merit order based on variable cost of each station. The stations of NPC and Hydro Stations are must run stations, the variable cost of NTPC stations and IPPs are based on figures which GUVNL has provided based on purchases during 2007-08 (April to September 2007). The variable cost of GSECL stations are as approved by the Commission in GSECL Tariff Order for the control period. For a new generating units/stations now added in the PPAs allocated, the quantum and costs as provided by DGVCL / GUVNL are considered. The merit order based on variable cost is given in Table 4.26 below:

Table 4.26

Merit Order of Stations

Allocated Generation Capacity from Stations	Variable cost (Rs. / kWh)
Kadana Hydro	0.00
Kutch Lignite I to III	1.07
NTPC – Kahalgoan	1.25
GSEG	1.48
APPL *	1.48
NTPC Barh *	1.70
NTPC North Karanpura	1.70
Sipat Stage-I *	1.70
GIPCL II (160)	1.72
NTPC – JHANOR	1.72
Wind Farms (Old Policy)	1.74
GIPCL, Expansion	1.75
Utran Extension *	1.86
Sikka TPS	1.99
ESSAR	2.01
GSPC-Pipavav *	2.14
Utran Gas Based	2.16
Dhuvaran Gas Based - Stage-I	2.21
Dhuvaran Gas Based - Stage-II	2.21
GPEC	2.47
NPC - Tarapur- 3&4	2.73
Bagasse	3.02
NTPC – KAWAS	3.08
Wind Farms (New Policy)	3.37
Dhuvaran oil	3.76

***Stations to be commissioned**

Power Purchase – 2008-09 to 2010-11

Power purchase for the control period (2008-09 to 2010-11) is based on energy requirement of DGVCL as approved by the Commission. The fixed and variable costs of GSECL stations for the control period are as approved by the Commission in the tariff order for the control period. For central generating stations and IPPs the fixed and variable costs considered for the control period are as per the average of the bills for the first half (April to September 2007) of 2007-08. For other stations / purchases, the fixed and variable costs are taken as proposed by DGVCL / GUVNL in MYT petition. Any variation in the fixed charges and variable costs during the control period shall be claimed by DGVCL / GUVNL under FPPPA formula approved by the Commission. Based on the above, the power purchase costs for the control period have been calculated and approved as given in Tables 4.27, 4.28 and 4.29

Table 4.27

Power Purchase for FY 2008-09

DGVCL: Power Purchase for FY 2008-09	Capacity allocated to Discom (MW)	Units Available (MU	Units Dispatchable (MU)	Fixed Cost (Rs. lakhs)	Unit Variable Cost (Rs. kWh)	Variable Cost (Rs./lakhs)	Incentive (Rs. lakhs)
GSECL							
Sikka TPS	120	704	704	5198	1.99	14010	
Kutch Lignite I to III	54	299	299	4047	1.07	3199	
Dhuvaran oil	100	597	0	3410	3.76	0	
Kadana Hydro	121	95	95	3408	0	0	
Utran Gas Based	14	108	108	540	2.16	2333	
Dhuvaran Gas-I	34	260	260	1654	2.21	5746	
Dhuvaran Gas-II	101	772	359	6396	2.21	7934	
Tax				542		0	
Sub-Total	**544**	**2835**	**1825**	**25195**		**33222**	**0**
IPPs							
ESSAR	90	612	612	3332	2.01	12297	191
GPEC	352	2393	1955	24658	2.47	48280	748
GIPCL II (160)	140	953	953	4494	1.72	16380	
GSEG	16	106	106	1152	1.48	1571	
GIPCL, Expansion	188	608	608	6570	1.75	10635	
Sub-Total	**786**	**4672**	**4234**	**40206**		**89163**	**939**
Central Stations							
NPC - Tarapur- 3&4	205	1363	1363	0	2.73	37218	490
NTPC – KAWAS	140	999	300	7813	3.08	9251	359
NTPC - JHANOR	119	836	836	5983	1.72	14437	300
NTPC - Kahalgoan	41	267	267	2483	1.25	3232	96
Sipat Stage-I	270	1750	1750	12614	1.70	29754	
Sub-Total	**775**	**5215**	**4516**	**28893**		**93892**	**1245**
Others							
Wind Farms (Old Policy)	5	10	10	5	1.74	179	
Wind Farms (New Policy)	106	213	213	0	3.37	7176	
Bagasse	3	34	34	6	3.02	1024	
RELIANCE INDUSTRIES LTD.NARODA		48	27	0	2.36	661	
UNITED PHOSPHOROUS LTD. JHAGADIA		0	0	0		0	
GUJARAT ALKALIS & CHEMI. LTD. BARUCH		16	0	0		0	
ONGC Anlkeshwar		13	0	0		0	
ONGC, Hazira		5	0	0		0	
M/S ADANI EXPORT (PHILIPS CARBON)		16	0	0		0	
M/S Arvind Mills LTD		0	0	0		0	
Sub-total	**114**	**355**	**284**	**11**		**9040**	**0**
Grand Total	2219	13077	10859	94305		225316.6	2184

Table 4.28

Power Purchase for FY 2009-10

DGVCL: Power Purchase for FY 2009-10	Capacity allocated to Discom (MW)	Units Available (MU	Units Dispatchable (MU)	Fixed Cost (Rs. lakhs)	Unit Variable Cost (Rs. kWh)	Variable Cost (Rs./lakhs)	Incentive
GSECL							
Sikka TPS	120	704	211	5266	1.99	4199	
Kutch Lignite I to III	54	299	299	4105	1.07	3199	
Dhuvaran oil	100	597	0	3387	3.76	0	
Kadana Hydro	121	95	95	3404	0	0	
Utran Gas Based	14	108	50	535	2.16	1080	
Dhuvaran Gas-I	34	260	57	1615	2.21	1260	
Dhuvaran Gas-II	101	772	57	6365	2.21	1260	
Utran Extension	94	458	458	4443	1.86	8519	
Tax				666		0	
Sub-Total	**638**	**3293**	**1227**	**29786**		**19516**	**0**
IPPs							
ESSAR	90	612	489	3332	2.01	9838	191
GPEC	352	2393	1915	24658	2.47	47295	748
GIPCL II (160)	140	953	762	4494	1.72	13104	
GSEG	16	106	106	1152	1.48	1571	
GIPCL, Expansion	188	1215	972	13140	1.75	17016	
Sub-Total	**786**	**5279**	**4244**	**46776**		**88824**	**939**
Central Station							
NPC - Tarapur- 3&4	205	1363	1363	0	2.73	37218	490
NTPC – KAWAS	140	999	300	7813	3.08	9251	359
NTPC - JHANOR	119	836	251	5983	1.72	4331	300
NTPC - Kahalgoan	41	267	267	2483	1.25	3232	92
Sipat Stage-I	270	1750	1354	18922	1.70	23016	
Sub-Total	**775**	**5215**	**3535**	**35201**		**77048**	**1241**
Others							
Wind Farms (Old Policy)	5	9	9	0	1.74	155	
Wind Farms (New Policy)	127	222	222	0	3.37	7487	
Bagasse	3	21	21	0	3.02	618	
APPL	350	2269	2269	32647	1.48	33554	
RELIANCE INDUSTRIES LTD.NARODA	0	48	0	0		0	
UNITED PHOSPHOROUS LTD. JHAGADIA	0	0	0	0		0	
GUJARAT ALKALIS & CHEMI. LTD. BARUCH	0	16	0	0		0	
ONGC Anlkeshwar	0	13	0	0		0	
ONGC, Hazira	0	5	0	0		0	
M/S ADANI EXPORT (PHILIPS CARBON)	0	16	0	0		0	
M/S Arvind Mills LTD	0	0	0	0		0	
Sub-Total	**485**	**2619**	**2521**	**32647**		**41814**	**0**
Grand Total	**2684**	**16406**	**11527**	**144410**		**227202.4**	**2180**

Table 4.29

Power Purchase for FY 2010-11

DGVCL: Power Purchase for FY 2010-11	Capacity allocated to Discom (MW)	Units Available (MU	Units Dispatchable (MU)	Fixed Cost (Rs. lakhs)	Unit Variable Cost (Rs. kWh)	Variable Cost (Rs./lakhs)	Incentive
GSECL							
Sikka TPS	120	704	211	5424	1.99	4199	
Kutch Lignite I to III	54	299	299	4142	1.07	3199	
Dhuvaran oil	100	597	0	3424	3.76	0	
Kadana Hydro	121	95	95	3410	0	0	
Utran Gas Based	14	108	40	531	2.16	864	
Dhuvaran Gas -I	34	260	30	1577	2.21	663	
Dhuvaran Gas-II	101	772	30	6268	2.21	663	
Utran Extension	94	632	419	6210	1.86	7793	
Tax				691		0	
Sub-total	**638**	**3467**	**1124**	**31677**		**17382**	**0**
IPPs							
ESSAR	90	612	489	3332	2.01	9838	191
GPEC	352	2393	1915	24658	2.47	47295	748
GIPCL II (160)	140	953	762	4494	1.72	13104	
GSEG	16	106	106	1152	1.48	1571	
GIPCL, Expansion	188	1215	365	13140	1.75	6381	
GSPC-Pipavav	90	30	9	246	2.12	193	
Sub-total	**876**	**5309**	**3646**	**47022**		**78382**	**939**
Central Stations							
NPC - Tarapur- 3&4	205	1363	1363	0	2.73	37218	490
NTPC – KAWAS	140	999	300	7813	3.08	9251	359
NTPC – JHANOR	119	836	251	5983	1.72	4331	300
NTPC – Kahalgoan	41	267	267	2483	1.25	3232	96
NTPC – Barth	130	843	843	9110	1.70	14326	
NTPC – North Karanpura	39	250	250	2698	1.70	4243	
Sipat Stage-I	270	1750	1601	18922	1.70	27210	
Sub-total	**944**	**6308**	**4875**	**47009**		**99811**	**1245**
Others							
Wind Farms (Old Policy)	5	9	9	0	1.74	155	
Wind Farms (New Policy)	127	259	259	0	3.37	8734	
Bagasse	3	34	34	0	3.02	1024	
APPL	350	2269	2269	32647		33554	
RELIANCE INDUSTRIES LTD.NARODA	0	48	48	0	2.36	1134	
UNITED PHOSPHOROUS LTD. JHAGADIA	0	0	0	0		0	
GUJARAT ALKALIS & CHEMI. LTD. BARUCH	0	16	16	0		317	
ONGC Anlkeshwar	0	13	13	0		251	
ONGC, Hazira	0	5	5	0		90	
M/S ADANI EXPORT (PHILIPS CARBON)	0	16	16	0		326	
M/S Arvind Mills LTD	0	0	0	0		0	
Sub-Total	**485**	**2669**	**2669**	**32647**		**45585**	**0**
Total	**2943**	**17753**	**12314**	**158355**		**241159.6**	**2184**

The energy from Wind forms and Bagasse plant does not come under merit order. However, the energy is considered as it is obligatory on the part of the utilities to purchase certain quantum of power from Renewable energy sources as per decision of the Commission.

The energy available as estimated by the Commission and energy despatchable based on merit order sector-wise are given in Table 4.30.

Table 4.30

Energy available and despatchable – 2008-09

(MU)

Sl.No.	Source	Energy Available	Energy Despatchable
	2008-09		
1.	Central Sector	5215	4516
2.	IPPS	4672	4234
3.	GSECL	2835	1825
4.	Others	355	284
5.	**Total**	**13077**	**10859**
	2009-10		
6.	Central Sector	5215	3535
7.	IPPS	5279	4244
8.	GSECL	3293	1227
9.	Others	2619	2521
10.	**Total**	**16406**	**11527**
	2010-11		
11.	Central Sector	6308	4875
12.	IPPS	5309	3646
13.	GSECL	3467	1124
14.	Others	2669	2669
15.	**Total**	**17753**	**12314**

The despatchable energy based on merit order over a year is only an estimate, it may depend on the demand on a day-to-day basis. In actual operations it is possible it could be more or less. While estimating the available and despatchable energy certain sources are not considered as the energy required is limited to the demand. If energy is required to be drawn in case of necessity and system conditions, DGVCL may draw power from these sources under intimation to the Commission explaining the circumstances under which the energy has to be drawn from these sources.

Sector-wise power purchase and cost for the control period 2008-09 to 2010-11 are given in Table 4.31 below:

Table 4.31

Power purchase cost 2008-09

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Total Cost (Rs. lakhs)	Incentive (Rs. lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	4516	28893	93892	122785	1245	2.75
2.	IPPS	4234	40206	89163	129369	939	3.08
3.	GSECL	1825	25195	33222	58417	-	3.20
4.	Others	284	11	9040	9051	-	3.19
5.	**Total**	**10859**	**94305**	**225317**	**319622**	**2184**	**2.96**

Table 4.32

Power purchase cost 2009-10

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Total Cost (Rs. lakhs)	Incentive (Rs. lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	3535	35201	77048	112249	1241	3.20
2.	IPPS	4244	46776	88824	135600	939	3.22
3.	GSECL	1227	29786	19516	49302	-	4.02
4.	Others	2521	32647	41814	74461	-	2.95
5.	**Total**	**11527**	**144410**	**227202**	**371612**	**2180**	**3.24**

Table 4.33

Power purchase cost 2010-11

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Total Cost (Rs. lakhs)	Incentive (Rs. lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	4875	47009	99811	146820	1245	3.04
2.	IPPS	3646	47022	78382	125404	939	3.47
3.	GSECL	1124	31677	17382	49059	-	4.36
4.	Others	2669	32647	45585	78232	-	2.93
5.	**Total**	**12314**	**158355**	**241160**	**399515**	**2184**	**3.26**

Transmission Costs

The transmission costs include the costs to be paid to PGCIL for regional transmission and 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 WREB. Hence the Commission accepts the projection of DGVCL.

The transmission charges of GETCO are as approved by the Commission. The transmission charges payable to PGCIL and GETCO are as in Table 4.34.

Table 4.34

Transmission Charges

(Rs. Lakhs)

Sl. No.	Details	Charges		
		2008-98	2009-10	2010-11
1.	Transmission charges of PGCIL	2687	2821	3243
2.	Transmission charges of GETCO	17135	19051	15518
3.	Total transmission charges	19822	21872	28761

GUVNL Costs

As discussed in para 4.9.1.5 above, GUVNL, a holding company of all unbundled entities of erstwhile GEB, is also entrusted with the business of purchase of power from various sources for sale in bulk to the four distribution companies and also three distribution licensees in Gujarat. In addition to purchase and sale of power, GUVNL as a holding company coordinates the working of the subsidiary companies. In accordance with the bulk supply agreement, the distribution companies have to share the operating expenses and reasonable return to GUVNL.

GUVNL prepares the Aggregate Revenue Requirement (ARR) for the ensuing year. The ARR is approved by the Apex Committee / Coordination Committee. Such ARR shall be payable by the DISCOMs and forms part of the power purchase cost.

As discussed in para 4.9.1.5 DGVCL has projected the GUVNL costs to be shared by the four DISCOMs during the control period at Rs.27,393 lakhs, Rs.28,773 lakhs and Rs.23,400 lakhs during the years 2008-09, 2009-10 and 2010-11 respectively. This is the gap between the revenue by sale of power to the four DISCOMs of GUVNL, TPL and Kandla Port Trust and the expenditure including the power purchase cost from the stations allocated to GUVNL to supply power to the TPL and Kandla Port Trust and other expenses of GUVNL. The details are given in Table 4.35.

Table 4.35

GUVNL Cost Allocation

(Rs. Lakhs)

Sl. No.	Particulars	2008-09	2009-10	2010-11
1.	Revenue from sale of power to TPL, Kandla Port Trust and others and surplus power and other income	190725	178158	186933
2.	Expenditure			
	(i) Power purchase cost	178563	166260	168480
	(ii) Operational expenses of GUVNL	39555	40671	41853
	Total expenses	218118	206931	210333
3.	**Gap**	**27393**	**28773**	**23400**

It is stated that the revenue is arrived at based on grid tariff approved by the Commission for supply of power to TPL and Kandla Port Trust. The revenue is arrived at about Rs.2.92/kWh for supply to TPL and Rs.3.79/unit to Kandla Port Trust. The sales to TPL will get reduced from 4530 MU to 2619 MU by 2008-09 and nil during 2009-10 and 2010-11 as TPL is going to have its own generation at SUGEN.

As shown in Table 4-35 above, a gap of Rs.79566 lakhs in GUVNL operations during the control period are proposed to be distributed to the four DISCOMs.

It is stated that the GUVNL cost of power purchase from various sources to supply power to TPL and Kandla Port Trust is said to be Rs.1,49,293 lakhs during 2008-09, Rs.1,49,459 lakhs during 2009-10 and Rs.1,50,922 lakhs during 2010-11, but has not mentioned the source of purchase and the price at which it is proposed to purchase the power. But it is seen from the total cost of power and energy sales that the average cost per unit works out to Rs.3.28 / kWh. This is considered reasonable compared to the cost of power at which GUVNL is supplying power to DGVCL, it is about Rs.3.20 to 3.54 /kWh. Hence the cost of purchase of power by GUVNL for sale to TPL and Kandla Port Trust is considered reasonable.

The other operating expenses of GUVNL are as below:

(Rs. Lakhs)

Particulars	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Employees cost	1688	1856	2042	2246
Administrative and General Expenses	17735	18621	19552	20530
Depreciation	655	655	655	655
Interest and finance charges	18325	18325	18325	18325
Share of E-Urja utilization charges	0	97	97	97
	38403	39554	40671	41853

The GUVNL expenses for 2007-08 are not actual but estimated. The employee cost is estimated at Rs.1688 lakhs for 2007-08 and projected for the control period with an annual increase of 10% per annum while the Administrative and General expenses are estimated at Rs.17735 lakhs for 2007-08 and projected for the control period with an annual increase of 5% per annum. The Commission has obtained the annual accounts for 2007-08, according to which the actuals for 2007-08 are as detailed below:

(Rs. lakhs)

Employee cost	1550
Administrative and General charges	986
Depreciation	862
Interest and Finance charges	13123

There is a huge difference in the estimates and actuals for 2007-08 in respect of Administrative and general charges and Interest and Finance charges.

In reply to a query the GUVNL clarified on 28.11.2008 that during FY 2006-07 the company reviewed various accounts showing receivable / payables outstanding since long. These balances appearing in GUVNL Balance Sheet was a result of inheritance from GEB under FRP approved by Government of Gujarat. After detailed examination and scrutiny, it was established and recommended by the outside experts (two firms of Chartered Accountants) who were engaged for reconciliation and liquidation of such old balances that such old balances may be written off / written back once and for all. Accordingly, as a one time measure, the net amount of Rs. 15322 lakhs was written off from the books of accounts by debit to Sundry Balances written off under Admn. Expenses. As a result, there was sudden jump in Admn. Expenses during 2006-07 (Rs. 16890 lakhs) as compared to 2005-06 (Rs. 1627 lakhs). Since such extra ordinary expenditure is not there in 2007-08, the actual Admin. Expenditure has come down to Rs. 986 lakhs. However, at the time of preparation of MYT petitions, the accounts of 2007-08 were not available. Hence, the MYT petitions were finalized based on 2006-07 actual expenditure, as a result the Admn. Expenditure was projected at Rs. 17735 lakhs.

Accordingly the actuals as per accounts for 2007-08 (Provisional) are taken into consideration for projection during the control period and the expenses of GUVNL are worked out with 6% annual increase in respect of Employee cost and 5% increase in Administration and General charges as detailed below:

Particulars	**2008-09**	**2009-10**	**2010-11**
Employees cost	1643	1742	1846
Administrative and General Expenses	1035	1087	1141
Depreciation	862	862	862
Interest and finance charges	13123	13123	13123
Share of E-Urja utilization charges	97	97	97
Total	**16760**	**16911**	**17069**

The operating expenses as above are approved by the Commission as GUVNL has to handle the entire power purchase from various sources and supply to DISCOMs and other licensees and discharge the functions of holding company with certain liabilities transferred to it. The GUVNL cost allocation as approved by the Commission is detailed below.

GUVNL Cost Allocation as approved

(Rs. Lakhs)

S.N	**Particulars**	**2008-09**	**2009-10**	**2010-11**
1	Revenue from sale of power to TPL, Kandla Port Trust and others and surplus power and other income	190725	178158	186933
2	Expenditure			
	(i) Power purchase cost	178563	166260	168480
	(ii) Operational expenses of GUVNL	16760	16911	17069
3	Total expenses	195323	183171	185549
	Gap (3-1)	**4598**	**5013**	**(1384)**

In accordance with the provisions of bulk power purchase agreement the expenses of GUVNL have to be paid by the four DISCOMs as part of power purchase costs. It is submitted by DGVCL that the expenses of GUVNL are allocated in proportion to power purchase by each of the DISCOMs. The allocation to DISCOMs is given table 4.36 below:

Table 4.36

GUVNL Cost Allocation

Cost Allocation (Rs. lakhs)	PGVCL	UGVCL	MGVCL	DGVCL	*Total*
2008-09	1795	1230	603	970	4598
2009-10	1979	1307	669	1058	5013
2010-11	-	-	-	-	**(1384)**

The estimated annual recurring cost of E-Urja as detailed below and the company's share as detailed in Table 4.36 are payable every year.

Annual recurring cost of E-Urja

Particulars	*Rs. Lakhs*
Depreciation	2826
Interest cost	2136
AMC	960
Total annual expenditure	5923
Percentage of total licenses with the company	10.2%
Allocation to the company	602.6

Total power purchase costs

The total cost of power purchase from various sources, transmission costs to be paid to PGCIL and GETCO and GUVNL expenses are aggregated to arrive at power purchase cost of DGVCL as shown in Table 4.37

Table 4.37

Total power purchase costs during control period

(Rs. Lakhs)

Sl.No.	Details	2008-09	2009-10	2010-11
1	Power purchase costs	321806	373792	401699
2	Transmission costs PGCIL & GETCO	19822	21872	28761
3	GUVNL costs	1573	1661	603
4	Total power purchase cost	343201	397325	431063

The Commission approves the total power purchase costs to DGVCL for the control period as below:

Year	Power purchase cost (Rs. lakhs)
2008-09	343201
2009-10	397325
2010-11	431063

The quantum of power purchase and their cost may change depending on actual situation that may come to prevail. All such contingencies cannot be envisaged. Additional power purchases (over and above approved levels) may become necessary due to factors such as aberrant monsoon, unanticipated outage of units or other similar factors. DISCOMs may meet such contingencies appropriately under intimation to the Commission.

4.11 Operation and Maintenance (O&M) expenses

The O&M expenses include Employee expenses, Repair and Maintenance (R&M) expenses and Administrative and General (A&G) expenses. Employee expenses comprise salaries, dearness allowance, bonus, terminal benefits, leave encashment and staff welfare expenses. The R&M expenses include expenses on repairs and maintenance of plant and machinery, vehicles, furniture and fixtures, office equipment, line materials and cables, transformers and related equipment, meters and metering equipment etc.

The A&G expenses include rents, rates and taxes, legal expenses, professional fees, insurance, travel expenses, training expenses, printing and stationery etc.

The DGVCL has clubbed all the above three expenses under the head O&M expenses stating that these are fundamental to the functioning of a distribution utility and are intertwined together impacting one another. It is further stated by DGVCL that it is in line with the methodology adopted for generation and transmission utilities by the Commission for approval of expenses.

The DGVCL has furnished the O&M expenses for 2005-06, 2006-07, 2007-08 and the control period as detailed in the Table 4.38 below for the control period.

Table 4.38

O&M expenses projected for the control period 2008-11

(Rs. Lakhs)

Particulars	2005-06 (Actuals)	2006-07 (Actuals)	2007-08 (Estimated)	Projection		
				2008-09	2009-10	2010-11
O&M expenses	11069	18776	20957	23053	25358	27894

The O&M expenses for the year 2006-07 actuals were higher by about 69% over the actuals for the year 2005-06. Taking 2006-07 as base the DGVCL has estimated expenses with about 10% increase for the year 2007-08 and also every year during the control period. DGVCL has furnished the following reasons for increase in O&M expenses during 2006-07 over 2005-06.

1. Merger of 50% dearness allowance with basic pay as per the decision of the Government of Gujarat in line with 5th Central Pay Commission recommendations with an impact of additional commitment amounting to Rs. 2375 lakhs.
2. Additional provision of Rs.3743 lakhs towards payment of arrears on implementation of the 6th Pay Commission Recommendations which are awaiting a final clearance.
3. Increase in R&M expenditure in 2006-07 on account of huge jump in electricity demand and new connections, especially in the HT industrial category and major expansion in the distribution work.
4. Resultant increase in A&G expenses and increased customer care and computerization. The DGVCL has requested for approval of O&M expenses as projected for the control period.

DGVCL has not furnished the component wise details either for actuals or projections for the O&M expenses. Even the annual accounts for 2006-07 and 2007-08 have not been submitted by the DGVCL. Instead of furnishing the full details under each head the DGVCL has furnished the lumpsum figures even for the actuals making it difficult to analyse the past trend under each component. DGVCL has clubbed the three heads of expenditure and claimed that it is in line with the methodology adopted for the generation and transmission utilities by the GERC.

The DGVCL in reply to a query from the Commission has submitted the break up of O&M expenses actuals for the years 2005-06 to 2007-08 and projections for the control period 2008-11 as detailed in the Table –4.39 below:

Table 4.39

O&M costs as furnished by DGVCL

(Rs. Lakhs)

Particulars	**Actuals**			**Projections**		
	2005-06	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Employee cost	8332	14365	12461	17382	19120	21032
R&M expenses	848	2158	3556	2946	3240	3564
A&G expenses	1888	2253	2452	2725	2998	3298
Total	**11068**	**18776**	**18469**	**23053**	**25358**	**27894**

The Commission has obtained the annual accounts for the years 2005-06, 2006-07 and 2007-08 (Pro). The actuals under O&M expenses for the years 2006-07 and 2007-08 furnished by DGVCL are the same as per annual accounts.

The O&M expenses proposed by the DGVCL for the control period are analyzed as under.

Employee cost

DGVCL has projected the employees cost at Rs. 17382 lakhs for the year 2008-09, Rs. 19120 lakhs for the year 2009-10 and Rs. 21032 lakhs for the year 2010-11. This is based on 10% increase per annum over the projected figure of Rs. 15802 lakhs for the year 2007-08.

It is submitted by DGVCL in their letter dated 10th November 2008 that an amount of Rs. 3746 lakhs had been provided in the employees cost in 2006-07 Accounts towards the estimated arrears payable due to wage revision awaiting final decision of the 6th Pay Commission. For the year 2007-08 also an amount of Rs. 2678 lakhs is provided towards estimated arrears on similar lines payable on account of 6th Pay Commission. As per annual accounts the employee costs for 2007-08 is Rs. 12461 lakhs which includes Rs. 2678 lakhs towards payment of arrears. The actual employee cost without the provision for arrears would be Rs. 9783 lakhs. It is observed that the increase in employee cost projected by the DISCOM and approved by the Commission was 5% during 2006-07 & 2007-08. The Commission considers that an increase of 6% per year is reasonable. The employee cost during 2008-09 would be Rs. 10370 lakhs over the cost of 2007-08 without making provision for payment of arrears of 6th Pay Commission. The arrears payable works out to Rs. 2904 lakhs at 28% of employee cost. The Commission considers that the payment of entire arrears may not materialize during 2008-09. It has considered to provide

60% of the amount during 2008-09 (Rs.1742 lakhs) and balance 40% (Rs.1162 lakhs) during 2009-10. The employee cost as above is approved by the Commission with an increase of 6% per annum.

2008-09	Rs. 12112 lakhs (10370 + 1742)
2009-10	Rs. 12154 lakhs (10370X1.06 + 1162)
2010-11	Rs. 11652 lakhs

The Commission approves the employee cost at Rs. 12112 lakhs during 2008-09, Rs. 12154 lakhs during 2009-10 and Rs. 11652 lakhs during 2010-11. Any variation due to payment of arrears on the recommendations of 6th Pay Commission will be considered during the true up for 2008-09.

R&M expenses

DGVCL has projected the Repair and Maintenance expenses for the control period as under:

2008-09	Rs. 2946 lakhs
2009-10	Rs. 3240 lakhs
2010-11	Rs. 3564 lakhs

The Commission has obtained the R&M expenses incurred for earlier years. The expenses are as below.

(Rs. Lakhs)

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
		(Actuals)			(Projected)	
Repair & Maintenance expenses	848	2158	3556	2946	3240	3564

It is seen that there is abnormal increase in the R&M costs during the year 2006-07 & 2007-08. It is submitted by DGVCL that R&M expenses of Rs. 848 lakhs during 2005-06 are quite low against Rs. 1317 lakhs during 2004-05. This is due to some of the R&M expenses have been included with the flood related R&M works during the year.

DGVCL distribution network comprises mainly of urban and industrial areas like Surat, Vapi, Ankleswar, Bharuch which include coastal and forest areas which require regular maintenance and replacement.

Implementation of Jyoti Gram Yojana has increased the network. In order to maintain quality power supply to the consumers it requires regular maintenance and replacement. Particularly in coastal areas.

In view of the above and also due to various other factors, the R&M costs have gone up during 2006-07 & 2007-08.

It is seen from the Annual Accounts that the R&M expenses for the year 2007-08 are Rs. 3556 lakhs. The major part of the expenses is R&M of lines, cable Network etc accounting to Rs. 2943 lakhs and the balance is on maintenance of plant and machinery etc.

The expenditure is substantially high and if actually incurred, probably major part might be one-time.

DGVCL has projected an amount of Rs. 2946 lakhs during 2008-09 which is less than the expenditure during 2007-08. The company has requested for an annual increase of 10%.

In view of actual expenditure of Rs. 3556 lakhs during 2007-08, the Commission approves the proposed expenditure of Rs. 2946 lakhs for the year 2008-09 with an increase of 5% for the next two years. The Commission approves the R&M expenses for the control period as under

(Rs. lakhs)

Particulars	2008-09	2009-10	2010-11
Repair & Maintenance expenses	2946	3093	3248

A&G expenses

DGVCL has projected the Administration and General Expenses for the control period as below.

2008-09	Rs. 2725 lakhs
2009-10	Rs. 2998 lakhs
2010-11	Rs. 3298 lakhs

The expenses for the earlier years are as under.

Particulars	2005-06	2006-07	2007-08
A&G expenses	1888	2253	2452

The actuals for the earlier years are as per Annual Accounts of the respective years. The company requested for 10% increase per year during the control period.

The Commission has observed that 5% increase was projected by the company during the previous years and the Commission approved the 5% increase.

The Commission considered that 6% increase during the control period is reasonable and approves the A&G expenses for the control period as under.

2007-08 (Actuals)	Rs. 2452 lakhs
2008-09	Rs. 2600 lakhs
2009-10	Rs. 2755 lakhs
2010-11	Rs. 2920 lakhs

Summing up

The Commission approves the O&M expenses for the control period as under.

Table 4.40

(Rs. Lakhs)

S.N	Particulars	2008-09	2009-10	2010-11
1.	Employee cost	12112	12154	11652
2.	R&M expenses	2946	3093	3248
3.	A&G expenses	2600	2755	2920
	Total O&M expenses	17658	18002	17820

4.12 Provision for bad and doubtful debts

The DGVCL has projected the provision for bad and doubtful debts as detailed in the Table 4.41 below.

Table 4.41

Provision for bad and doubtful debts projected for the control period 2008-11

(Rs. Lakhs)

Particulars	2006-07	2007-08	2008-09	2009-10	2010-11
Provision for bad debts	1700	343	387	434	475
% of sales revenue		0.10%	0.10%	0.10%	0.10%

DGVCL has mentioned that it is a very legitimate expenditure which is associated with the business risk and is a consumer related expense. DGVCL has projected the provision at 0.1% of the projected revenue from sale of power.

The DGVCL has a consumer base of about 19 lakhs by the end of March 2008 and about 80% of them are LT residential consumers.

The area of operation of DGVCL covers about 23307 Sq. Kms with 3 circles in 7 districts. As such the Commission considers 0.10% of the revenue as reasonable towards provision for bad and doubtful debts. The provision is accordingly approved as detailed in the Table 4.42 below.

Table 4.42

Provision for bad and doubtful debts approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
Provision for bad debts	387	434	475

The Commission approves the provision for bad debts at Rs. 387 lakhs for 2008-09, Rs. 434 lakhs for 2009-10 and Rs. 475 lakhs for 2010-11.

4.13 Depreciation

The DGVCL has claimed Rs. 20398 lakhs towards depreciation charges for the control period 2008-11 as detailed in the Table –4.43 below.

Table 4.43

Depreciation charges projected for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Depreciation	4978	5816	6821	7761

DGVCL has mentioned that depreciation has been calculated based on the rates specified by CERC for various assets in the power sector including distribution assets.

It is found that depreciation has been calculated taking into consideration the opening balance of assets at the beginning of the year and proposed capitalization i.e additional assets proposed to be brought into use during the control period. The actual average rate of depreciation worked out to 3.62% and the same rate has been adopted for projections during the control period as detailed below.

Depreciation	**2006-07**	**2007-08**	**2008-09**	**2009-10**	**2010-11**
Gross block at the beginning of the year	102,979	128,766	146,366	175,078	201,920
Additions during year (Net)	25787	17,600	28,713	26,842	25,095
Cumulative Depreciation at the beginning of the year	13,558	17,751	22,729	28,545	35,366
Depreciation for the year	**4193**	**4,978**	**5,816**	**6,821**	**7,761**
Cumulative Depreciation at the end of the year	17,751	22,729	28,545	35,366	43,126
Average rate of depreciation	3.62%	3.62%	3.62%	3.62%	3.62%
Net Block at the beginning of the year	89,420	111,015	123,637	146,534	166,554
Net Block at the close of the year	111,015	123,637	146,534	166,554	183,888

The depreciation charges claimed are as per the rates specified by the CERC. The depreciation charges have been examined and found to be in order.

The Commission approves the depreciation charges at Rs. 5816 lakhs for 2008-09, Rs. 6821 lakhs for 2009-10 and Rs. 7761 lakhs for 2010-11.

4.14 Capital expenditure

The DGVCL has projected a capital expenditure of Rs. 80650 lakhs for the control period 2008-11. The broad details of the capital expenditure for the year 2007-08 and projections for the control period are given in the Table 4.44 below.

Table 4.44

Capital expenditure projected for the control period

(Rs. lakhs)

	Capital Expenditure Plan	**2007-08**	**Control Period**		
			2008-09	**2009-10**	**2010-11**
A	**Distribution Schemes**				
	Normal Development Scheme	4000	6000	6000	6000
	System Improvement Scheme	1960	9000	9000	9000
	Jyoti Gram Yojna	1650	0	0	0
	Electrification of hutments	0	182	191	200
	Kutir Jyothi Scheme	150	1120	1176	1235
	Total	**7760**	**16302**	**16367**	**16435**
B	**Rural Electrification Scheme**				
	TASP (Wells and Petapara)	2496	83	88	92
	Special Component Plan	5	57	65	15
	REC Normal	52	42	45	45
	Electrification of primitive Tribes	0	530	0	0
	Total	**2553**	**712**	**198**	**152**

	Capital Expenditure Plan	2007-08	Control Period		
			2008-09	2009-10	2010-11
C	**Others**				
	Energy Conservation	0	56		
	Total	**0**	**56**	**0**	**0**
D	**Non Plan Scheme**				
	RE Non Plan (Tatkal)	355	0	0	0
	APDRP	1235	0	0	0
	RGVY	2707	2241	2075	0
	Total	**4297**	**2241**	**2075**	**0**
E	**Other New Schemes**				
	Automatic PF Control panels	600	1200	1200	1200
	Aerial Bunch Conductors	106	200	500	500
	HVDS in selected sub-division	100	500	500	900
	Automatic meter reading	40	100	0	0
	GIS in cities	0	100	200	200
	Underground Cables	800	0	0	206
	Coastal	897	1500		
	Civil Works	72	800	800	500
	Total	**2615**	**4400**	**3200**	**3506**
F	**Other Schemes**				
	New Gujarat Pattern	375	0	0	0
G	**Golden Goal Scheme**				
	Pending Agricultural Connections	0	5002	5002	5002
	Capital Expenditure Total	**17600**	**28713**	**26842**	**25095**

The distribution schemes include normal development schemes and system improvement schemes, Jyotigram Yojana, electrification of hamlets. About 300000 new connections are proposed to be released during the control period. DGVCL has mentioned that as a part of the Golden Goals targets set by Government of Gujarat, the DISCOMs shall release all pending agriculture connections amounting to over 2.1 lakh applications across the State of Gujarat in the next three years. This golden goal scheme involves 10% of the total expenditure as a grant, about 20% by way of consumer contribution and the balance amount for the capital expenditure shall be through a mix of debt and equity. The capital expenditure proposed towards release of new agriculture connections is about Rs. 5002 lakhs per annum during the control period. DGVCL would be connecting about 15720 services during the control period costing Rs. 15006 lakhs.

It is further mentioned by the DGVCL that it plans to issue over 2.78 lakh connections to BPL household as part of the 'Golden Goals' targets set by Government of Gujarat. This involves 100% grant for funding the capital expenditure required under this programme.

Release of services to BPL households and all pending agriculture connections is a part of socio economic policy of Government of Gujarat. While release of service connections to BPL households is covered under RGGVY with 100% grants, the agricultural connections are covered with 10% grant and 20% consumer contribution. Release of agriculture connections are actually unremunerative from the utility point of view and this needs to be covered by more grants from State Government. The capital expenditure envisaged needs to be viewed in the overall perspective of agriculture sector contribution to the gross domestic product and provides employment to a vast majority of the population. As such the Commission approves the capital expenditure as proposed by DGVCL for the control period. The utility should however impress upon the State Government to provide 100% grant for this scheme.

The Commission approves the capital expenditure for the control period as projected by the DGVCL, with the stipulation that all BPL connections are funded through 100% grants and pending agricultural connections are funded through 10% grants.

The Commission also feels that with a significant increase in the number of Agricultural connections, the government subsidy for compensating the utility because of increased loss will be correspondingly enhanced.

The details of capital expenditure under various schemes are given separately.

The sources of funding the proposed capital expenditure is detailed in the Table –4.45 below.

Table 4.45

Proposed funding of capital expenditure during the control period 2008-11

(Rs. Lakhs)

Source of Capex	2007-08	2008-09	2009-10	2010-11
Consumer contribution	3271	5505	5505	5505
Grant	7421	4534	3888	2042
Equity	3745	12870	12510	12602
Debt	3163	5804	4939	4935
Total capital expenditure	**17600**	**28713**	**26842**	**25095**

Regarding sources of funding the capital expenditure DGVCL has projected equity at about 70% and debt at about 30% of the Capex other than consumer contribution and grants. The DISCOM has in reply to a query from the Commission, explained that as per Tariff Regulations (Terms and Conditions of Tariff) the equity additions during the year for ROE calculations have been considered as a minimum of 30% of the total Capex on actual requirements. Hence, wherever the total equity funding of all schemes under the Capex plan of the company are in excess of normative 30%, the equity additions have been capped at the later level and hence there is a difference in the two entries. As per GERC Regulations the accepted debt-equity ratio is 70:30. Accordingly the sources of funding are worked out as detailed in the Table 4.46 below.

Table 4.46

Sources of funding the capital expenditure approved for the control period

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Capital expenditure	**17600**	**28713**	**26842**	**25095**
Less: Consumer Contribution	3271	5505	5505	5505
Grants	7421	4534	3888	2042
Balance Capex	6908	18674	17449	17548
Equity (30%)	2072	5602	5235	5264
Debt	4836	13072	12214	12284

The Commission observes that the above equity and debt are correctly taken by the DGVCL in calculation for return on equity and interest on loans. The debt and equity figures are wrongly exhibited in table 54 of the petition.

The Commission approves the sources of funding the capital expenditure as detailed in Table 4.46 above for the control period.

4.15 Interest and Finance charges

The DGVCL has projected the interest and finance charges at Rs. 28228 lakhs for the control period 2008-11 as detailed in the Table 4.47 below.

Table 4.47

Interest and finance charges projected for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Opening balance of loans	62587	54308	61949	67969
Additions	4835	13072	12214	12283
Repayment	13114	5431	6195	6797
Interest during the year	6283	6249	6983	7602
Interest on security deposit	1909	2080	2241	2407
Guarantee charges	222	222	222	222
Total interest and finance charges	8414	8551	9446	10231
Closing balance of loans	54308	61949	67969	73455
Average rate of interest	10.75%	10.75%	10.75%	10.75%
Average tenure of loans, year	10	10	10	10

The DGVCL has mentioned that the interest expenses include interest paid to consumers on their security deposits with an escalation equal to the overall growth of consumers as indicated in Table 13 of ARR has been taken for the interest costs for the control period. The rate of interest considered for the projection is 9.16% P.A which is the current weighted average rate of interest on long-term loans of GUVNL. But actually the DGVCL projected the interest rate @ 10.75% P.A. for the control period.

The drawal of loans is in accordance with the sources of funding approved in Table 4.46 above. The DGVCL has not furnished any details in respect of security deposits. For determination of interest and finance charges the Commission takes into account the capital liabilities other than loans for working capital and allows the interest charges based on the average rate of interest arrived at for the year 2007-08(Actual). The guarantee charges are projected at Rs. 222 lakhs P.A. during the control period 2008-11 based on the actuals for 2006-07.The DGVCL has projected the interest charges estimating the interest at 10.75%PA.The actual interest charges on capital liabilities other than State Government loans and consumer security deposits worked out to about 9.5% for the year 2007-08 (The average loan was Rs. 61930 lakhs and the interest was Rs. 5785 lakhs). Considering a 0.5% margin towards market fluctuations the Commission approves the interest charges on term loans at about 10% for the control period. The interest and finance charges are worked out as detailed in the Table 4.48 below. The interest on security deposits is discussed in para 4.16 below.

Table 4.48

Interest and finance charges approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Opening balance of loans	62587	54308	56929	57929
Additions	4835	8052	6693	6209
Repayments	13114	5431	5693	5793
Closing balance of loans	54308	56929	57929	58345
Interest charges @ 10%		5562	5743	5814
Interest on security deposits		2080	2241	2407
Guarantee charges		152	152	152
Total interest and finance charges		**7794**	**8136**	**8373**

The Commission approves the interest on capital loans and security deposits at Rs. 7794 lakhs for 2008-09 and Rs. 8136 lakhs for 2009-10 and Rs. 8373 lakhs for the year 2010-11.

The consumer security deposits are considered as capital receipts to meet the proposed capital expenditure.

4.16 Interest on Security Deposits

The DGVCL has projected interest on security deposits at Rs. 6728 lakhs for the control period 2008-11 @ 6% rate of interest as detailed in the Table 4.49 below.

Table 4.49

Interest on security deposits projected by DGVCL

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Interest on security deposits	1909	2080	2241	2407

The DGVCL has not furnished the details of security deposit and the receipts expected during the control period. The opening balance of security deposits from consumers as on 01/04/2008 as per the annual accounts for 2007-08 is Rs. 50195 lakhs. The consumer security deposits relate to the growth in sales and revenue. The security deposits which were Rs. 33100 lakhs in 2005-06 increased to Rs. 50195 lakhs to end of March 2008 working out to more than 10% increase P.A. The consumer security deposits with annual increase of 10% and the interest thereon is worked out as detailed in the Table 4.50 below.

Table 4.50

Consumer security deposit and interest for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Consumer security deposits	50195	55215	60736	66810
Interest @ 6%		3162	3479	3826

The interest on security deposits @ 6% P.A. worked out to more than what the DISCOM has projected. To a query from the Commission the DISCOM has mentioned that the interest on security deposit does not match with 6% because for many of the deposits exact details are not available, interest payments cannot be made, and the DISCOMs are trying to rectify this by constantly updating this. In view of this the Commission accepts the interest on security deposits as projected by DGVCL.

The Commission approves the interest on security deposits at Rs. 2080 lakhs for 2008-09 and Rs. 2241 lakhs for 2009-10 and Rs. 2407 lakhs for the year 2010-11.

4.17 Interest on working capital

The DGVCL has claimed Rs. 12407 lakhs towards interest on working capital for the control period 2008-11. The year-wise details projected by DGVCL are given in the Table 4.51 below.

Table 4.51

Interest on working capital projected for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Operating expenses for one month	1960	2138	2335	2550
Maintenance spares escalated at 6% P.A.	919	974	1033	1095
Receivables	28613	32289	36141	39610
Total working capital	31492	35401	39508	43255
Rate of interest for working capital	10.50%	10.50%	10.50%	10.50%
Interest on working capital	3307	3717	4148	4542

The DGVCL has submitted that interest on working capital has been calculated based on normative working formula as per Terms and Conditions of Tariff Regulations except in respect of receivables. Regarding receivables the DGVCL has taken into consideration one month revenue instead of 2 months revenue for the control period. Interest on working capital has been claimed at 10.50% P.A.

Regulation 20 (v) (b) specified that the rate of interest on working capital shall be on a normative basis and shall be equal to the short-term prime lending rate of SBI as on 01/04/2004 or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation whichever is later. The short-term PLR as on 01/04/2004 is applicable and this was 10.25%. The interest on working capital, is accordingly worked out for the control period as detailed in the Table 4.52 below.

Table 4.52

Interest on working capital approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
O&M expenses	1472	1500	1481
Spares	974	1033	1095
Receivables	31318	36038	38980
Working capital	33764	38571	41569
Rate of interest for working capital	10.25%	10.25%	10.25%
Interest on working capital @ 10.25%	3461	3954	4260

The Commission, therefore approves the interest on working capital at Rs. 3461 lakhs for the year 2008-09, Rs. 3954 lakhs for 2009-10 and Rs. 4260 lakhs for the year 2010-11.

4.18 Return on equity

The DGVCL has projected the return on equity at Rs. 17821 lakhs for the control period as detailed in the Table 4.53 below.

Table 4.53

Return on equity projected for the control period

(Rs. lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Opening equity capital	32194	34,267	39,869	45,104
Addition during the year	2072	5,602	5,235	5,264
Closing equity	34267	39,869	45,104	50,368
Average equity	33231	37,068	42,486	47,736
Opening free reserves	3031	3,285	2,873	3,586
Addition during the year	2326	5,190	5,948	6,683
Less: Reserves transferred to equity	2072	5,602	5,235	5,264
Closing free reserves	3285	2,873	3,586	5,005
Average reserves	3158	3,079	3,229	4,295
Reserves considered for ROE	2072	5,602	5,235	5,264
Equity for Capex	2072	5,602	5,235	5,264
Rate of ROE	7%	14%	14%	14%
Return on average equity	**2326**	**5,190**	**5,948**	**6,683**

The DGVCL has prayed to approve the full amount of return on equity claimed at the rate of 14% as enshrined in the GERC(Terms and Conditions of Tariff) Regulations, 2004. In this regard DGVCL has referred to a letter from the Union Minister of Power, wherein Government of India asked the State Government to ensure full returns on equity to power utilities vide letter No. 45/2/206 R&R / (P1) / 1039-70 / VIP dated 8th February 2008.

The addition of equity projected for the control period is in accordance with the sources of funding the capital expenditure. The rate of return of equity projected is 14% which is as per the GERC Regulations. The details are given in Table below.

Particulars	2007-08	2008-09	2009-10	2010-11
Opening equity capital	32194	34,267	39,869	45,104
Addition during the year	2072	5,602	5,235	5,264
Closing equity	34267	39,869	45,104	50,368
Average equity	33231	37,068	42,486	47,736
Rate of ROE	7%	14%	14%	14%
Return on average equity	**2326**	**5,190**	**5,948**	**6,683**

The Commission, accordingly, approves the return on equity at Rs. 5190 lakhs for 2008-09, Rs. 5948 lakhs for 2009-10 and Rs. 6683 lakhs for 2010-11.

4.19 Other expenses

The DGVCL has projected the other debits and extraordinary items under other expenses as detailed in the Table 4.54 below.

Table 4.54

Other expenses projected for the control period 2008-11

(Rs. Lakhs)

Other expenses	2007-08	2008-09	2009-10	2010-11
Other debits	94	99	104	109
Extra ordinary items	2120	2120	2120	2120

DGVCL has submitted that other debits have been projected with an annual escalation of 5% over 2006-07 actuals while the extraordinary items have been considered at the level of actuals for 2006-07.

Extraordinary items are defined as those which arise from events or transactions outside the ordinary activities of the utility and which are material and expected not to recur frequently or regularly. Other debits primarily include material cost variance and other miscellaneous losses. On verification from the annual accounts for 2007-08 the actual under extraordinary items was Rs.125 lakhs only. The Commission accepts the other debits and extraordinary items as detailed in the table 4.54 (a) below:

Table 4.54 (a)

Other expenses approved for the control period 2008-11

(Rs. Lakhs)

Other expenses	2008-09	2009-10	2010-11
Other debits	99	104	109
Extra ordinary items	150	150	150

The Commission approves the other debits and extraordinary items as indicated in Table 4.54 (a).

4.20 Capitalization of expenses

The DGVCL has projected Rs. 5078 lakhs P.A. during the control period towards interest and expenses capitalized at the level of expenses capitalized during 2006-07. On verification from the annual accounts it is found that the amount projected is towards capitalization of O&M expenses viz., Employee cost, Repairs and Maintenance expenses and A&G expenses. This does not include capitalization of interest charges. The Commission obtained the annual accounts for 2007-08 (P.A.) and the expenses capitalized were Rs. 4288 lakhs during 2007-08.

For O&M expenses the annual increase considered is 6% during the control period. It is reasonable to assume that capitalization of O&M charges would also increase by 6% P.A. The Commission, therefore, considers annual increase of 6% over the actuals for 2007-08 as detailed in the Table 4.55 below.

Table 4.55

Capitalization of O&M expenses approved for the control period

(Rs. lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Expenses capitalized	4288	4545	4818	5107

The Commission, accordingly approves the capitalization of O&M expenses at Rs. 4545 lakhs for 2008-09, Rs. 4818 lakhs for 2009-10 and Rs. 5107 lakhs for 2010-11.

4.21 Taxes

The DGVCL has projected the tax on income for the control period as detailed in the Table below.

Table 4.56
Provision for tax projected by DGVCL for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Provision for tax	105	115	127	139

DGVCL has assumed the Fringe Benefit Tax at 0.5% of the total employee cost and the income tax at the MAT rate of 11.33% on the surplus, if any, including the ROE component.

On verification it is found that tax is projected at 0.5% on the total O&M expenses instead of employee cost and the tax at MAT rate has not been projected by the DGVCL.

As per Regulation 66 of GERC (Terms and Conditions of Tariff) Regulations, 2005, tax is allowable on the approved return. The tax is worked out as detailed in the Table –4.57 below.

Table 4.57
Income tax approved by the Commission for the control period 2008-11

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
ROE approved	5190	5948	6683
Income tax at the MAT rate of 11.33%	588	674	757
Fringe Benefit Tax @ 0.5% of E.C	61	61	58
Total tax	649	735	815

Since DGVNL has claimed Fringe Benefit Tax only the claim is limited to the Fringe Benefit Tax on employees cost.

The Commission, accordingly approves the provision of tax at Rs. 61 lakhs for 2008-09, Rs. 61 lakhs for 2009-10 and Rs. 58 lakhs for 2010-11.

4.22 Other consumer related income

The other income comprises of revenue on account of charges imposed other than the basic charges applicable to the consumers. These charges include meter rent, wheeling charges, inspection charges and other miscellaneous charges.

The DGVCL has projected the other consumer related income as detailed in the Table 4.58 below for the control period.

Table 4.58
Other consumer related income projected by DGVCL

(Rs. lakhs)

Particulars	2006-07 (Actual)	2007-08 (Estimated)	2008-09	2009-10	2010-11
Rental for metered service lines	2574	2751	2940	3143	3359
Recoveries for theft of power	1498	1601	1712	1830	1955
Wheeling charges	61	65	69	74	79
Miscellaneous charges	2292	2449	2618	2798	2991
Total	**6424**	**6867**	**7339**	**7845**	**8385**

DGVCL has stated that the other income has been projected to grow at the same rate as the overall growth in the number of consumers during the control period. The annual increase projected is about 6.9% per annum.

The Commission has obtained the annual accounts for 2007-08 (Pro). The other income for 2007-08 as per accounts was Rs. 6077 lakhs. The category-wise growth rates of consumers for the control period projected by DGVCL are 8.9% in 2008-09, 7.7% in 2009-10 and 7.4% in 2010-11. The Commission accepts these growth rates and the other consumer related income is worked out taking the actuals for 2007-08 as base as detailed in the Table 4.59 below.

Table 4.59

Other consumer related income approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
Other income	6077	6618	7127	7655

The Commission, accordingly, approves the other consumer related income at Rs. 6618 lakhs for 2008-09, Rs. 7127 lakhs for 2009-10 and Rs. 7655 lakhs for 2010-11.

4.23 Non-Tariff Income

The non-tariff income comprises of interest on loans and advances to employees / contractors, income from investments with banks, delayed payment surcharges from consumers etc.

The DGVCL has projected the non-tariff income as detailed in the Table 4.60 below for the control period.

Table 4.60

Non – Tariff income projected by DGVCL for the control period

(Rs. lakhs)

Particulars	2006-07 (Actual)	2007-08 (Estimated)	2008-09	2009-10	2010-11
Interest on staff loans and advances	33	33	33	33	33
Interest from consumers	2	2	2	2	2
DPC charges from consumers	2089	2089	2089	2089	2089
Income from trading	93	93	93	93	93
Gain on sale of fixed assets	9	9	9	9	9
Subsidies / grants including APDRP incentives	10253	0	0	0	0
Miscellaneous receipts	1526	1526	1526	1526	1526
Total	**14005**	**3752**	**3752**	**3752**	**3752**

DGVCL has stated that the non-tariff income has been projected at the same level as in FY 2006-07 but the income from subsidies and APDRP incentives have not been considered for projections.

The non–tariff income other than subsidies and APDRP incentives for the control period has been projected at Rs. 3752 lakhs at the level of actuals for 2007-08 for the entire control period without any escalation. APDRP is not being implemented at present.

The non-tariff income other than APDRP incentive was Rs. 3260 lakhs in 2007-08 (actual). The non tariff income taking the actual of 2007-08 as base and applying 6% annual increase the non-tariff income is worked out as detailed in the Table –4.61 below.

Table 4.61

Non-tariff income approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
Non-tariff income	3260	3456	3663	3883

The Commission, accordingly approves the non-tariff income at Rs. 3456 lakhs for 2008-09, Rs. 3663 lakhs for 2009-10 and Rs. 3883 lakhs for 2010-11 of the control period.

4.24 Revenue from existing tariff

The DGVCL has projected the revenue from existing tariff as detailed in the Table –4.62 below for the control period 2008-11.

Table 4.62

Revenue from existing tariff projected by the control period 2008-11

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
Sales revenue	351942	379330	407929
Agriculture (compensation)	3902	3996	4090
	355844	383326	412019

The expected revenue from existing tariff on the basis of sales approved by the Commission is worked out based on rates given in Form-D-5 of MYT petition as detailed in the Table 4.63 below.

Table 4.63

DGVCL: Category-wise Sales and Revenue at current tariffs approved by the Commission for the control period 2008-11

Sl.No	Category	2008-09			2009-10			2010-11		
		Sales (MU)	Average Rate (Rs.) Kwh	Revenue Rs. Lakhs	Sales (MU)	Average Rate (Rs.) Kwh	Revenue Rs. Lakhs	Sales (MU)	Average Rate (Rs.) Kwh	Revenue Rs. Lakhs
I	**LT Consumers:**									
1	Residential	1402	3.12	43742	1603	3.14	50334	1828	3.14	57399
2	Commercial	491	4.79	23519	537	4.78	25669	587	4.78	28059
3	Industrial LT	2525	4.13	104283	2730	4.13	112749	2923	4.12	120428
4	Public Lighting	27	3.42	923	28	3.42	958	29	3.42	992
5	Agriculture (With Tariff Compensation)	650	1.05	6825	681	1.02	6946	711	0.99	7039
6	Public Water Works	92	2.74	2521	99	2.74	2713	105	2.74	2877
7	**Total LT**	**5187**		**181813**	**5678**		**199368**	**6183**		**216793**
II	**HT Consumers:**									
8	Industrial HT	3288	4.85	159468	3485	4.85	169023	3694	4.84	178790
9	Railway Traction	268	5.17	13856	279	5.17	14424	290	5.17	14993
10	Total HT	**3556**		**173324**	**3764**		**183447**	**3984**		**193783**
11	**Total Revenue with agri. Compensation**	**8743**	**0**	**355137**	**9442**	**0**	**382815**	**10167**	**0**	**410576**

The revenue from existing tariff approved is summarized in the Table 4.64 below.

Table 4.64

Revenue from existing tariff approved for the control period 2008-11

(Rs. lakhs)

Particulars	2008-09	2009-10	2010-11
Sales revenue with agricultural compensation	355137	382815	410576
Agriculture (compensation)	-	-	-
Total	355137	382815	410576

The summary of revenue requirement for the control period 2008-11 as projected by DGVCL and as analysed and approved in the preceding paragraphs is given in Table 4.65 below:

Table 4.65

Revenue Requirement as projected by DGVCL and as approved by the Commission for the control period 2008-11

Rs.lakhs

Sr. No.	Particulars	As projected by DGVCL (With proposed tariff)				Approved by the Commission (With existing tariff)		
		FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2008-09	FY 2009-10	FY 2010-11
1	Cost of Power Purchase	337633	355863	413915	447722	343201	397325	431063
2	O & M Expenses	20957	23053	25358	27894	17658	18002	17820
3	Depreciation	4978	5816	6821	7761	5816	6821	7761
4	Interest on Loans & Finance Charges	8414	8551	9446	10231	7794	8136	8373
5	Interest on Working Capital	3307	3717	4148	4542	3461	3954	4260
6	Other Debits	94	99	104	109	99	104	109
7	Extraordinary items	2120	2120	2120	2120	150	150	150
8	Provision for bad debts	343	387	434	475	387	434	475
9	Less : Interest & Expenses Capitalised	5078	5078	5078	5078	4545	4818	5107
10	**Sub Total [(1 to 8)-(9)]**	**372768**	**394528**	**457268**	**495776**	**374021**	**430108**	**464904**
11	Return on equity	2326	5190	5948	6683	5190	5948	6683
12	Provision for Tax	105	115	127	139	61	61	58
13	**Total Expenditure (10 to 12)**	**375199**	**399833**	**463343**	**502598**	**379272**	**436117**	**471645**
14	Less : non tariff income	3752	3752	3752	3752	3456	3663	3883
15	**Aggregate revenue requirement (13-14)**	**371447**	**396081**	**459591**	**498846**	**375816**	**432454**	**467762**
16	Revenue with existing tariff	332738	376376*	422093*	463185*	355137	382815	410576
17	Other Income consumer related	6867	7339	7845	8385	6618	7127	7655
18	**Total revenue before subsidy (16+17)**	**339605**	**383715**	**429938**	**471570**	**361755**	**389942**	**418231**
19	Subsidy	5217	6195	6338	6459	6195	6338	6459
20	Other Subsidies	3052	3297	3518	3717	3297	3518	3717
21	**Total revenue after subsidy (18 to 20)**	**347874**	**393207**	**439794**	**481746**	**371247**	**399798**	**428407**
22	**Gap (15-21)**	**23573**	**2874**	**19797**	**17100**	**4569**	**32656**	**39355**

*The revenue projected by DGVCL in the MYT petition is with proposed tariff.

Chapter 5

Capital Expenditure Plan

5.1 The DGVCL proposed Capital Expenditure under various schemes i.e. Distribution Schemes, Rural Electrification Schemes, Centrally Sponsored Schemes and other schemes. The details of estimates for Capital Expenditure for the control period 2008-09 to 2010-11 under each of the above scheme are analyzed in this chapter.

5.2 Scheme-wise Capital Expenditure for the Control Period

Table 5.1

Capital Expenditure Proposed during the control period

(Rs in lakhs)

	Schemes	Control Period		
		2008-09	**2009-10**	**2010-11**
A	Distribution Schemes			
	Normal Development Scheme	6000	6000	6000
	System Development Scheme	9000	9000	9000
	Jyoti Gram Yojna	0	0	0
	Electrification of hutments	182	191	200
	Kutir jyoti scheme	1120	1176	1235
	Total	**16302**	**16367**	**16435**
B	**Rural Electricification schemes**			
	TASP (Wells and Petapara)	83	88	92
	Special Component plan	57	65	15
	REC Normal	42	45	45
	Electrification of Primitive Tribes	530	0	0
	Total	**712**	**198**	**152**
C	**Others**			
	Energy Conservation	56		
	Total	**56**	**0**	**0**
D	**Non Plan Schemes**			
	RE Non Plan (Tatkal)	0	0	0
	APDRP	0	0	0
	RGVY	2241	2075	0
	Total	**2241**	**2075**	**0**

	Schemes	Control Period		
		2008-09	**2009-10**	**2010-11**
E	**New Other Schemes**			
1	Automatic PF control panels	1200	1200	1200
3	Aerial Bunch Conductors	200	500	500
4	HVDS in selected sub-division	500	500	900
6	Automatic meter reading	100	0	0

	Schemes	Control Period		
		2008-09	2009-10	2010-11
7	GIS in cities	100	200	200
10	Underground Cables	0	0	206
13	Costal	1500		
	Misc. Civil work	800	800	500
	Total	**4400**	**3200**	**3506**
F	**Other Schemes**			
2	New Gujarat Pattern	0	0	0
G	**Golden Goal Scheme**			
	Pending Agriculture Connections	5002	5002	5002
	Capital Expenditure Total	**28,713**	**26,842**	**25,095**

A brief description of the funding of the above mentioned schemes is given below:

5.2.1 Normal Development Scheme (Deposit Work)

The company has to lay distribution lines up to installations of LT/HT consumers. This requires considerable investment for laying LT/HT lines, service connection lines, meters, etc. This also requires for expansion of some of existing distribution system and strengthening of sub-transmission lines and sub-stations.

Table 5.2

Break up of Capex under Normal Development Scheme

Particulars	Cost per Connection [in Rs.]	2008-09		2009-10		2010-11	
		Nos.	Amt. (Rs. akhs)	Nos.	Amt. (Rs. Lakhs)	Nos.	Amt. (Rs. lakhs)
Normal Development Scheme							
Lighting and Domestic Connections	3045	94805	2887	94805	2887	94805	2887
L.T. Industrial Connections	40650	3860	1569	3860	1569	3860	1569
H.T. Industrial Connections	152076	774	1177	774	1177	774	1177
Agricultural Shifting Connections	5996	192	12	192	12	192	12
Agriculture PDC to Reconnection	15081	66	10	66	10	66	10
Agriculture Extension of Load	7231	400	29	400	29	400	29
Water Works	12416	1400	174	1400	174	1400	174
Franchisee Maintenance	16400	587	96	587	96	587	96
Other works	15884	293	47	293	47	293	47
TOTAL		**102377**	**6000**	**102377**	**6000**	**102377**	**6000**

5.2.2 System Improvement Schemes (Own Scheme)

Every year consumers are added as per demand of power over and above the existing consumers. Hence the system expansion is based on the consumer requirements rather than technical requirements. This leads to increase in distribution losses in the system. Due to aging of distribution system, it requires replacement / improvement. For this purpose, System Improvement Schemes are devised separately based on requirements. Such schemes include renovation / replacement of old sub-transmission and distribution system, bifurcation of feeders, installation / upgradation of distribution transformers, installation of capacitors, etc.

Under the System Improvement Scheme, 20 feeders of Surat circle, 06 feeders of Valsad circle and 05 feeders of Bharuch circle having high distribution losses & high MUs losses are selected and for this, a project amounting to Rs.89.19 crore has already been sanctioned. The system improvement will be achieved by renovation of HT feeders, by providing necessary cable, automatic power factor controller, feeder bifurcation, providing static energy meters and replacement of old distribution transformers by amorphous transformers. Under the Scheme, a provision has also been made to provide XLPE coated conductor in theft prone areas, providing strip type earthing to transformers, replacement of deteriorated distribution boxes etc. It is planned to complete all such activities on 31 feeders by the end of March’09. For 31 feeders, the distribution loss (220 MUs) of the year 2006-07 is expected to be reduced by 50 to 60 MUs annually.

In DGVCL, as of now, there are 11 feeders having average power factor less than 0.7 and 71 feeders having average power factor between 0.7 & 0.8. It is planned, during 2008-09, to provide automatic power factor control panels on individual distribution transformers on all such feeders to raise the power factor to more than 0.95, so that maximum KVA demand could be reduced. Further, by installing APFC panels, it reduces HT line losses, transformer losses, failure of transformers, release transformer and distribution capacity to connect more active load, improves voltage in lines and the quality of power supplied to every consumer is of a high standard in terms of voltage, power factor and current drawn. It is also planned to provide APFC panels on all transformers and feeders having power factor between 0.8 and 0.95 during the financial years 2009-10 and 2010-11.

5.2.3 TASP (Wells and Petapara)

The company undertakes the work of Rural Electrification in tribal areas under Tribal Areas Sub-Plan financed by the State Government for electrification of virgin areas and also extensive electrification in the areas already electrified earlier. For providing such electrification facility in tribal area, the State Government is providing financial assistance under TASP Scheme. The scheme involves electrification of wells and petaparas.

39 petaparas have been electrified during 2007-08. During 2007-08, 3120 wells were electrified and it is also planned to electrify 5000 wells every year during the financial years 2008-09, 2009-10 & 2010-11.

5.2.4 SPA Wells

The Company undertakes the work of electrification of Ag. wells in non-tribal, non-dark zone areas under Special Project for Agriculture (SPA) Scheme. For providing such electrification facility, the Company takes loans either from REC or from any Bank at lower interest rates under the Scheme. The target of electrification of 65 wells for the year 2007-08 has already been achieved under the Scheme. It is planned to release 750 Ag. well connections every year during 2008-09, 2009-10 & 2010-11.

5.2.5 Rajiv Gandhi Gramin Vidyutikaran Yojana (RGGVY)

The Govt. of India has launched the RGGVY Scheme for rural electricity infrastructure and household electrification for providing access to electricity to all households in five years. The scheme envisages providing 66/11 KV Substations in rural areas, electrification of all rural BPL households, electrification of un-electrified villages & habitations, additional distribution transformer centers etc.

Of the total outlay, capital subsidy component is provided at 90%. However, for the projects to be eligible for capital subsidy under the Scheme, prior commitment of the States shall be required for deployment of franchisee for management of rural distribution under the project.

Under the RGGVY Scheme, in Bharuch District infrastructure work in all the 656 villages has been completed and also 25892 BPL connections have been released uptil now. Similarly, in Narmada District, out of 552 villages, infrastructure work in 225 villages has been completed and out of 37309 total BPL connections, 12696 connections are already released upto 04.02.'08. The balance work is planned to be completed during the financial year 2008-09.The RGGVY projects for Dang, Valsad, Navsari & Surat Districts have been sanctioned recently.

Accordingly, it is planned to release 3262, 22686, 16704 & 82062 household connections respectively in Dang, Valsad, Navsari and Surat Districts during the financial years 2008-09 & 2009-10.

5.2.6 Tatakal Schemes (Deposit Work + Loan)

The Company undertakes the work of electrification of agricultural wells in tribal non tribal, dark zone and non dark zone area by overriding priority under the Tatkal Scheme. In this scheme, 100% cost of expenditure is to be contributed by the consumer. The physical target of the Company for the year 2007-08 has been fixed at 750 wells. There is no target for the financial years 2008-09, 2009-10 and 2010-11 under the Scheme.

5.2.7 Kutir Jyoti Scheme

For this Scheme, 100% grant is given by State Government every year. For the year 2007-08, 7906 household connections have been released against the target of 7500 connections. It is planned to release 2500 household connections every year during the financial years 2008-09, 2009-10 & 2010-11.

5.2.8 Other Schemes

a. **Special Component Plan Scheme:** For electrification of Schedule Caste localities, the State Government is allocating fund every year for implementing the programme under Special Component Plan. From the year 1998-99, this fund is being made available as grant. The Social Welfare Department at District / Taluka level arranges to register applications from un-electrified Schedule Caste localities where demands are coming and hand over the list of beneficiaries to the Company, and accordingly, electrification work is being carried out every year. Hence, for the years 2007-08, 2008-09, 2009-10 & 2010-11, a provision of Rs.57 lakh, 65 lakhs and 15 lakhs has been made under the Scheme every year.

b. **Coastal Area Scheme:** For strengthening distribution system in all coastal talukas of the company, a fund of Rs.8.97 crore is made available for the year 2007-08. A fund of Rs.15 crore is also likely to be made available for the year 2008-09. Under the Scheme, deteriorated conductors and service lines have to be replaced. At the same time, necessary maintenance like replacement of distribution boxes, PSC poles, pin / disc insulators etc. has also to be carried out to improve the quality of power in coastal areas.

c. **Jyotigram Yojna:** Under Jyotigram Yojna, all the villages are already electrified.

However, a provision of Rs.16.50 Crore has been made for the year 2007-08 for the work of left out petaparas, shifting of agricultural connections from JGY to Ag. dominant feeders and to provide special design transformers to cater power supply for 24 hours to scattered household connections. There is no provision of expenditure for the years 2008-09, 2009-10 & 2010-11.

5.2.9 Other New Schemes:

a. **Automatic P.F. Control Panels:** By installing automatic power factor (P.F.) control panels, it reduces HT line losses, transformer losses, failure of transformers, releases transformer & distribution capacities to connect more active load. Also, in order to improve voltage in line and supply quality power, for the years 2007-08, 2008-09 & 2009-10, a provision of Rs. 12 crore has been made every year for installation of automatic P.F. control panels. These automatic power factor control panels are to be installed on individual transformers of selected feeders whose power factor is less than 0.9.

b. **Aerial Bunch Conductors:** For providing aerial bunch conductors as a measure of reducing distribution losses, provisions of Rs. 2.0 crore, Rs. 5 crore, and Rs. 5 crore have been made respectively for the years 2008-09, 2009-10, 2010-11. Aerial bunch conductor has to be provided in theft prone areas to prevent direct tapping and langars.

c. **Automatic meter reading:** For automatic meter reading, provisions of Rs.40 lakh and Rs.1 crore are made respectively for the years 2007-08 & 2008-09. Provision of automatic meter reading is made for all HT consumers and LT industrial consumers having load more than 50 HP. This helps in monitoring the consumption pattern of all such consumers from office desktop only, which helps in controlling T&D losses as any tampering can easily be detected at a time as GSM module sends the signal directly to the mobile of the concerned controlling officer. All the data can be collected remotely.

d. **Underground Cables:** It is planned to provide quality power supply in urban areas, for which faults and interruptions have to be reduced. Under this activity, the overhead lines are proposed to be replaced by underground cables in urban areas. This will also help in prevention of accidents. Under the Scheme, provisions of Rs.8 Crore, & Rs.2.06 Crore have been made respectively for the years 2009-10 & 2010-11.

5.2.10 Release of pending Agriculture Connections

As part of the "Golden Goals" targets set by the GoG, the Discoms shall release all pending agriculture connections, over 2.1 lakhs applications across the state of Gujarat, in the next three years.

Towards that end, the company has drawn out a strategic plan to provide the connections to all pending Agriculture applicants within the span of three years.

With this, every year about 5000 farmers would get electrical connection and thereby would be able to irrigate their farms and contribute in the growth and development of the State. This initiative shall also enable these farmers to switch over from the use of "dirty" technologies/ sources of energy such as Diesel pumps etc and be able to utilize a cleaner and more efficient source of energy.

It has been assumed that GoG shall provide for about 10 % of the total expenditure as a grant and the company shall be able to obtain consumer contribution upto 20%. The balance amount for the capital expenditure shall be through a mix of debt and equity by the company itself.

The number of connections to be issued, the cost of the project as well as their revenue implications are depicted below:

Table 5.3

Pending Agriculture Connections - Estimates and Assumptions

Number of Agriculture Connections to	Nos.	15720
Phasing of the Project	Years.	3
Assumptions :		
Load per Connection	HP	8.5
Consumption per HP	Kwh	1700
Estimated Material Cost per Connection	Rs.	85905
Labour Cost	Rs.	9545
Total Cost	Rs.	95450
Total Project Cost	**Rs. Lakhs**	**15006**

Table 5.4

Phasing of release of agricultural connections

Phasing		**FY 2008-09**	**FY 2009-10**	**FY 2010-11**
Number of New Agriculture Connections	Nos.	5240	5240	5240
Cumulative number of Connections	Nos.	5240	10480	15720
Total Additional Units Supplied	MUs	75.718	151.436	227.154
Additional Load Added	HP	44540	89080	133620
Additional Load Added	MW	33	66	100
Capital Expenditure	Rs.Lakhs	5002	5002	5002

5.2.11 BPL Household Connections

As part of the "Golden Goals" targets set by the GoG, the Discoms shall issue new connections to all BPL households in the coming years at the rate of about 2.5 lakh connections per year across Gujarat.

The company plans to issue over 2.7 lakh connections to these consumers over the control period. It has been assumed that the GoG shall provide a 100 % grant for funding the capital expenditure required under this programme under funds already budgeted by them under various schemes such as Electrification of Hutments, SCSP, Kutir Jyoti and TASP (Petaparas). The expenses under this programme have already been included in the projections under the various schemes mentioned above.

The number of connections to be issued, the cost of the project as well as their revenue implications are depicted below:

Table 5.5

BPL Household Connections - Estimates and Assumptions

Number of Household Connections to	Nos.	277666
Phasing of the Project	Years	3
Assumptions:		
Consumptions per Month	kwh	30
Connected load	kw	0.1

Table 5.6

Phasing of release of BPL Household connections

Phasing		FY 2008-09	FY 2009-10	FY 2010-11
Number of New Household Connections	Nos.	93956	95751	87959
Cumulative Number of Connections	Nos.	93956	189707	277666
Total Additional Units Supplied	Mus	34	68	100
Additional Load Added	MW	9	19	28

5.3 Funding

The capital expenditure as given in Table 5.1 would be funded as follows:

Table 5.7
Funding of Capital Expenditure

(Rs. Lakhs)

Sl. No.	Source of Capex	2007-08	2008-09	2009-10	2010-11
1	Consumer Contribution	3271	5505	5505	5505
2	Grants	7421	4534	3888	2042
3	Equity	3745	12870	12510	12602
4	Additional Equity	0	0	0	0
5	Loans	3163	5804	4939	4945
6	GoG Loans	0	0	0	0
	Total Capital Expenditure	**17600**	**28713**	**26842**	**25095**

5.4 Commission's view:

DGVCL has outlined the works they propose to implement during the control period 2008-09 to 2010-11 only with estimated costs. The works include:

- Normal development schemes.
- Tribal area sub-plan.
- Electrification of wells under REC programme.
- System improvement scheme.
- Rajiv Gandhi Grameen Vidyuthikaran Yojna (RGGVY)
- Release of pending agricultural connections.

Some of the schemes are funded through consumer contribution, grants from State and Central Government equity and some quantum of loans. One major scheme taken up by the company is "Release of pending agricultural connections" under "Golden Goal" programme of State Government with 10% grant. The utility would take up with the State Government to fund the entire amount as grant.

Chapter 6

Compliance of Directives

6.1 Compliance of Earlier directives

The Commission in its tariff order dated 31.03.2007 for the year 2007-08 had issued certain directives to DGVCL.

DGVCL has submitted a compliance report on the directives issued in the present MYT petition.

Commission's comments on the status of compliance of the directives by the DGVCL are given below. The Commission has also given specific directives to the licensee wherever required.

Directive-1: CONSUMPTION BY AGRICTURAL PUMPSETS:

The Commission has directed that the "DISCOM should evolve a methodology for assessing realistic consumption for un-metered agricultural pumpsets and submit a report by November 2007 to arrive at a revised norm for consumption of unmetered agricultural services".

Compliance:

As per the directive issued by the Commission, the company has studied the consumption of un-metered agriculture consumers in order to arrive at the actual consumption in the category per HP of connected load.

With the complete implementation of the Jyotigram Yojana (JGY) in Gujarat, which resulted in the separation of feeders supplying power to Agriculture and other categories, the company has been able to undertake feeder level energy accounting and compile information on the total energy sent to Agriculture dominated (Ag. Dom) feeders. However, in the absence of complete metering at the consumer end, the amount of energy reaching the agriculture consumer cannot be estimated.

The company is endeavoring to achieve 100 % metering at the DTC level and has made progress in the recent past to come closer to the target.

DTC Transformer Metering status

Particulars		
Total Number of Transformers in FY 2006-07	Nos.	35924
Number of Transformers with Meters	Nos.	19316
Unmetered Transformers	%	46.23
Number of meters installed on transformers in FY 2006-07	Nos.	7765
Number of meters installed on transformers in FY 2005-06	Nos	1448

Current status of metering in Agriculture consumers is as below:

Metering of Agriculture Feeders

Particulars		
Number of Unmetered Agriculture Consumers	Nos	47012
Number of Agriculture dominated feeders	Nos	238
Number of Transformers on Agriculture dominated feeders	Nos	11728
Number of transformers metered	Nos	5541
Unmetered Transformers	%	52.75

It may be noted that installation of meters on these feeders at the consumer end has also been resisted by consumers and this remains a significant challenge for the company in implementing the 100% metering target.

Given the above, an assessment of the consumption of unmetered agriculture consumers has been done using three different scenarios for the distribution losses on the Ag. Dom feeders to understand the likely range of unmetered agriculture consumption:

Scenario Analysis of Agricultural Consumption

Scenario 1	**Unit**	
Total Units Sent on Agricultural dominated feeders	MUs	684.2
Technical Losses on Agricultural dominated feeders	%	13.48
Energy available for sale	MUs	591.97
Units billed to consumers other than unmetered agriculture	MUs	135.45
Energy available for sale to unmetered agriculture	MUs	456.52
Connected Load of unmetered Agriculture on Agricultural dominated feeders	HP	253481
Energy Sent out per HP of load to unmetered agriculture	MUs	1801.00
Scenario 2		
Total Units Sent on Agricultural dominated feeders	MUs	684.2
Technical Losses (Agricultural dominated) + Commercial Losses (Overall)	%	23.02%
Energy available for sale	MUs	526.70
Units billed to consumers other than unmetered agriculture	MUs	135.45
Energy available for sale to unmetered agriculture	MUs	391.25
Connected Load of unmetered Agriculture on Agricultural dominated feeders	HP	253481
Energy Sent out per HP of load of unmetered agriculture	MUs	1543.50
Scenario 3		
Total Units Sent on Agricultural dominated feeders	MUs	684.2
Distribution losses on Non-Agricultural dominated feeders	%	15.53
Energy available for sale	MUs	577.94374
Units billed to consumers other than unmetered agriculture	MUs	135.45
Energy available for sale to unmetered agriculture	MUs	442.49374
Connected Load of unmetered Agriculture on Agricultural dominated feeders	HP	253481
Energy Sent out per HP of load of unmetered agriculture	MUs	1745.66827

Scenario 1 indicates the pre-commercial loss figure for un-metered agriculture consumption, i.e. the energy that the company has to procure per HP of agriculture consumption.

Scenario 2 takes into account the technical losses of only Agricultural dominated feeders and the overall commercial loss of the company in the energy accounting thus indicating the possible power requirement of the category if commercial losses were at overall company levels.

Scenario 3 assumes distribution losses at non Agricultural dominated levels for assessing the consumption of the category.

Thus, in all three scenarios the consumption of un-metered agriculture is comparable to the current norm of 1700 units/HP/ annum.

Further to the above methods of estimation, the company has provided APFC panels which include energy meters on a few Agricultural dominated feeders. A pilot study of such feeders where complete DTC metering has been achieved to get a precise measure of the un-metered consumption is under progress.

Comparison of metered and unmetered agriculture consumption

The consumption per HP of connected load in metered agriculture connections is often projected as an indicative benchmark for consumption per HP in unmetered agriculture. For the Discom, the Units/ HP for metered agriculture works out as below:

Metered Consumption

Metered Consumption	Units Billed	Connected Load	Units/ HP
Year	MUs	HP	
FY 2006-07	97.24	186236	522.13
FY 2005-06	89.41	168490	530.65

As can be seen above, the per HP consumption of metered consumers is much lower than the current norm of 1700 units/HP/annum followed by the Discoms or the estimations done in the section above. This is so because of the following reasons:

1. Nature of tariff: Obviously, since the consumption is measured and billing is done based on the total units consumed, the metered consumers have an incentive in being careful about their consumption. On the other hand, it is common practice of un-metered agriculture consumers to keep their motors on for the entire duration of power supply. This leads to considerably more consumption in un-metered agriculture.
2. The consumption recorded in metered category is also lowered because of considerable instances of theft as well as meter tampering seen in supply to this category. For example 343 cases of theft were recorded by the Discom in FY 2006-07 in this category, by far the highest among any category of consumers.

It may also be noted that the actual consumption in un-metered agriculture is a function of many parameters such as the amount of rainfall during a particular season, geographical disparities, type of crop, number of hours of supply etc. So the actual consumption would vary within a range of values, season to season, year to year.

Commission's comments:

It is observed from the compliance submitted by DGVCL that the consumption by unmetered pumpsets (kWh/HP) depends on the assumed technical losses on the agricultural feeders. There is a wide variation between the three scenarios based on the assumed losses on feeder and the consumption figures widely differ from the consumption recorded by metered connections.

This study does not give satisfactory results as the feeder losses are metered. A realistic consumption by agricultural pumpsets could be obtained only by providing meters at distribution transformers and properly assessing LT losses on the LT network below distribution transformers.

The progress on this is only that 19316 transformers are metered against 35924 transformers. The metering of distribution transformers should be expedited.

Wherever meters are provided at the distribution transformers, the consumption by the pumpsets under these transformers may be assessed and furnished to the Commission by reading the meters regularly. A report for the year 2008-09 may be furnished by May 2009.

Directive-2: ENERGY AUDIT:

Compliance:

The Commission has directed that the DISCOM should concentrate more on urban areas where large quantum of energy is being consumed and arrive at feeder-wise / distribution transformer-wise losses to take steps for reducing the loss. This would help in reducing the losses.

(a) Progress of the Project for System Improvement (SI) Scheme for the F.Y.2006-07 for Urban and Industrial feeders having high losses is submitted hereunder.

Status of SI Schemes in DGVCL

Progress of the Project for System Improvement Scheme for Urban and Industrial feeders F.Y.2006-07:[As on Dec-2007]

Sl. No.	Description	Unit	Total Approved work (total 69 feeders)		Progress at the end of the month	
			Quantity	Cost (Rs. Lakhs)	Quantity	Cost (Rs. Lakhs)
1	Bifurcation Of Feeders	No.	11.00	387.54	4.70	46.93
2	Replacement the Old transformers By Amorphous Transformer.	No.	279.00	299.63	29.00	13.38
3	Use of Arial Bunch Conductors	Km.	226.33	339.00	0.75	2.25
4	Automatic Power Factor Control Panels	No.	1727.00	1050.21	1182.00	355.38
5	Conversion of Over-Head Lines into underground HV Cable System	Km.	396.66	4571.91	7.11	101.88
6	Provide RMUs [Ring Main Units]	No.	121.00	605.00	0.00	0.00
7	Providing LT 34 mm2 AAAC	Km.	351.40	66.45	138.90	21.73
	Insulated Conductor.					

Sl. No.	Description	Unit	Total Approved work (total 69 feeders)		Progress at the end of the month	
			Quantity	Cost (Rs. Lakhs)	Quantity	Cost (Rs. Lakhs)
8	Microprocessor base time controller switch for Ag Connection.	No.	4.00	0.63	0.00	0.00
9	Replacement Of Meters by Quality/Static Meters.	No.	190348	1598.59	46077	426.58
10	**Total**			**8918.96**		**968.13**

(b) Circle-wise statistical data for static meters provided on TCS of urban feeders is as follows:

Provision of Static Meters

Static meters provided on TCS of Urban feeders F.Y.2006-07:[As on Dec-2007]	
Circle	Urban T/cs.
Valsad	3132
Surat	1660
Bharuch	1040
DGVCL	5832

(c) Circle-wise progress of static meters provided on all Industrial Connections below 50 HP is as under.

Static Meters to Industrial Connections

F.Y.2006-07:[As on Dec-2007]

Sr. No.	**Name of Circle**	**Nos. of Industrial Connections**	**Nos. of Industrial Connections below 50 HP**	**Static meter provided on connections below 50 HP**	**Balance connections**
1.	SURAT	32984	24212	20431	3781
2.	VALSAD	10737	9127	9127	0
3.	BHARUCH	4007	1941	1791	150
4.	Total	47728	35280	31349	3931

Commission's comments:

DGVCL shall report to the Commission to what extent the energy audit helped in reducing the losses giving specific cases and measures taken in such cases to reduce the losses.

Directive-3: DISTRIBUTION LOSS

The Commission has directed that the DISCOM shall prepare a road map for reduction of losses for the next 5 years (2007-08 to 2011-12). The technical and non-technical losses should be segregated and investments required for system improvements, metering etc. should be estimated. The DISCOM should effectively utilize the APDRP funds for reduction of losses in urban areas.

Compliance:

The Road Map to reduce the Distribution Losses is mentioned hereunder:

Distribution Loss Trajectory

Particular	FY 06-07 (approved)	FY 06-07 (actual)	FY 07-08 (Prov.)	FY 08-09 (Projected)	FY 09-10 (Projected)	FY 10-11 (Projected)
Distribution Loss %	16.59%	16.52%	15.45%	14.45%	13.45%	12.45%
Reduction %				1.00%	1.00%	1.00%

To reduce the losses further by effective energy audit, particularly in urban areas, a SYSTEM IMPROVEMENT SCHEME is under implementation. The Progress of this scheme alongwith Capital Expenditure Scheme is shown under compliance of Directive no.2.

Distribution Loss Target for DGVCL for the year 2007-08 as approved by the Commission is 15.59%. The Distribution losses at the end of FY 2007-08 work out to 15.45%.

To achieve the target of Distribution Loss reduction as per the given road map, the actions initiated by the Company are mentioned below:

To achieve the target, efforts are being made by working on all feeders particularly Urban, Industrial, GIDC & JGY category feeders, having high MUs losses. There is ample scope of saving MUs on Urban & JGY feeders.

Towards the reduction of distribution losses in urban area, circle-wise statistical data for static meters provided on TCS of urban feeders and village TCs of JGY feeders is as follows:

Static meters on Urban and JGY Feeders as on Dec, 2007

Circle	Urban T/Cs	JGY village T/c
Valsad	2749	1366
Surat	1660	1252
Bharuch	1051	2056
DGVCL	5460	4674

Urban category feeders above 15% loss are selected to bring down the losses at 20%. Working on such 29 feeders will save 85.44 MUs.

In Industrial category, losses on 13 feeders above 10% losses are selected to bring down losses to 10% by saving 45.11 MUs.

In the JGY it is envisaged to achieve a saving of 199.39 MUs through reduction of energy loss. For this purpose, it is proposed to focus on 44 feeders which have loss of 30% or more.

Further actions being taken to achieve the target are as under:

Correct feeder coding

Static meters are being provided on all the DTC of Urban feeders and village T/cs. of JGY feeders. All T/c. meters are to be given the consumer number for its consumption history alongwith the consumption history of the consumers fed through the concerned T/c. This exercise will point out the area where theft of power is more. Such areas should be concentrated by intelligent checking drives, providing coated conductor, pilfer proof connections etc. Also the installation checking drives will be enhanced.

The details of the static meters provided on TCS of Urban feeders and village TCs of JGY feeders are as mentioned above.

All the Industrial connections below 50 HP are being provided with static meters.

Key steps being taken by DGVCL to reduce losses are identified below:

- To reduce the losses on JGY feeders, feeders above 3MUs loss are being focused. High loss areas on these feeders are attended first.
- All the connections are being provided with MMB with sealing in such areas.
- Vigorous checking drives are being arranged.
- Defective and stop meters are being replaced.
- In theft prone area, aerial bunched conductors are being provided.
- Installation of HVDS
- Underground cabling of HT line.
- 100% feeder rectification
- feeder bifurcation
- 100% remote metering
- Consumer Analysis System
- s/d bifurcation

For reduction of the losses on feeders, statistical data for circle-wise progress during the F.Y. 2007-08 [upto Dec-2007] is as under:

Status of loss reduction measures

Sl. No.	Name of Circle	MMB Provided		Sealing provided Sr.		Replacement Of defective meters	Connections checked	Arial Bunched Conductors provided.
		1 - Ø	3- Ø	1- Ø	3- Ø			
1.	Valsad	57405	1960	38326	3133	86780	37702	0
2.	Surat	101098	3204	78740	4339	113497	67690	10
3.	Bharuch	43745	1005	54026	1186	65081	33977	30.8
4.	Total	202248	6169	171092	8658	265358	139369	40.8

Commission's comments:

The action taken by DGVCL in reducing the loss is appreciated. The efforts shall be continued to reduce the losses further.

Directive-4: Jyotigram Yojana

The Commission has directed that the DISCOM should take effective technical and administrative measures and provide proper metering to reduce the losses on these feeders.

Compliance:

To reduce the losses on JGY feeders, feeders above 3 MUs loss are being concentrated. High loss areas on these feeders are attended first.

Commission's comments:

The result of measures taken may be reported to the Commission in specific cases i.e. feeder / villages.

Directive-5: Effective metering, billing and revenue realization:

The Commission has directed that there must be many old electro-magnetic meters which may not be recording the consumption accurately; steps should be taken to replace all such meters with static meters which record the consumption accurately.

Compliance:

Category wise Status of Electro-magnetic meters and Static Meters

As on Nov-2007

Sr. No.	Category of consumers	No. of consumers Having electro-magnetic meters	No. of consumers having Static meters	Total
1.	HT Ind.	0	1893	1893
2.	LT Industrial [>50 HP]	0	12765	12765
3.	LT Industrial [<50 HP]	2879	32037	34916
4.	Residential	1238374	200019	1438393
5.	Commercial	151647	56971	208618
6.	Water Works	2714	4461	7175
7.	Agricultural	77745	2762	80507
8.	Railways	0	5	5
9.	TOTAL	1473359	310913	1784272

The Commission has also directed that the replacement of the defective / mal-functioning meters should be a continuous effort till all such meters are replaced.

APDRP provides funds for such meter replacement and the APDRP funds shall be utilized for this purpose.

Non-working and Defective Meters pending as on Dec -2007

Name of the Circle	Non-working and Defective Meters pending at the end of 31.12.07
Valsad	8219
Surat	16760
Bharuch	6934
Total	31913

Detailed time bound planning is framed for replacement of above non-working meters to achieve “zero” level.

APDRP scheme is closed since the last Financial Year 2006-07.

Commission’s comments:

Action taken in metering is noted. A report on action to be taken to improve meter reading and billing may also be submitted.

Directive-6: CONSUMER SERVICE:

The Commission has directed that (1) a number of steps are taken to improve the consumer service by opening more call centers etc. This should be improved particularly in semi-urban and rural areas covered under Jyotigram Yojna. Steps taken to improve the consumer service shall be reported to the Commission. (2) The four Discoms have set up Consumers Grievances Redressal Forums. The Forums have to act expeditiously in addressing the grievances of the consumers. The Managing Directors of the Discoms are directed to review the functioning of Forums every quarter to ensure prompt disposal of grievances. They should send periodical reports to the Commission in the matter.

Compliance:

At present Customer Care Centers are already in operation at Valsad, Surat and Bharuch Circle Offices, Navsari-City & Saputara. For Tribal areas, it is planned to set-up Consumer Care Centers at all Taluka Places.

Consumer Grievances Redressal Forum is already constituted and it is functioning since September 2005 at the Corporate Office of the Company at Surat. An Independent Member is also appointed for the Forum. Furthermore, Complaint Redressal Committees at Division and Circle Office level are also constituted and the same are functioning regularly as per the Provisions of the GERC Regulations of Standard of Performance of Distribution Licensee.

The review of the functioning of the Forum every quarter is carried out to ensure prompt disposal of grievances. The periodical reports on the working of the Forum are also submitted to the Commission.

Commission's comments:

A survey on consumer satisfaction should be got conducted by a third party and a report on the findings may be submitted to the Commission.

Directive-7: CENT PERCENT METERING:

The Commission has directed that vigorous efforts should be made to provide meters to un-metered services which are still very large in number.

Compliance:

The details of un-metered Agriculture connections and the progress of installation of meters on all Un-metered Agriculture connections as on 31.12.2007 are as follows:

Status of Metering in Ag. Connections

Sr. No.	**Name of Circle**	**Total Ag. connections**	**Nos. of metered Ag. connections**	**Balance Nos. of un-metered Ag.** Connections [HP based tariff]
1	Valsad	32790	15807	16983
2	Surat	34040	11829	22211
3	Bharuch	13933	6165	7768
	TOTAL	80763	33801	46962

However, the progress of installations of meters is quite slow due to severe resistance from the farmers/agriculture consumers. Hence achieving a cent percent metering is becoming difficult.

Commission's comments:

Consumers may be convinced on the need for energy accounting by the utility and providing metering for balance un-metered services may be expedited.

Directive-8: Business Plan

The Commission has directed that the Business plan for the next five years (2007-08 to 2011-12) should be finalized early and submitted to the Commission by April/May 2007.

Compliance:

All the four Discoms finalized a uniform comprehensive scope of work for the preparation of a Strategic Long Term Business Plan which was entrusted to M/s.Crisil Infrastructure Advisory in January, 2008. The draft report has already been submitted and the company is in the process of finalizing the same.

Commission's comments:

Action taken is noted. Preparation of Business Plan including techo-economic justifications of the proposed schemes shall be got expedited.

Directive-9: Introduction of MYT

The Commission has directed that the DISCOM shall finalize the Business Plan and relevant data required for preparation of filing of ARR for 2008-09 for implementation of MYT.

Compliance:

The present Aggregate Revenue Requirement [ARR] petition is under MYT framework.

Commission's comments:

The MYT filing for the control period 2008-2011 is delayed. Review petition on annual performance should be filed in time.

Direcive-10: Allocation of PPAs:

Compliance:

The PPA allocation is reviewed from time to time by GUVNL and the Discoms. It is a dynamic activity in view of the fact that the consumer mix, load growth and revenue realization is different from company to company and varies from year to year. To maintain parity of revenues among the Discoms, PPAs have to be reallocated periodically as the energy requirements and the load profile of companies vary. The issue of cross-subsidy amongst the Discoms is being addressed at present, through PPA reallocation so as to maintain uniform retail tariff. We may have to continue this exercise unless The Commission addresses the issue of cross subsidy amongst various Discoms through some other methodology. Accordingly, PPAs have been reallocated while preparing the MYT.

Commission's comments:

The allocation of PPAs shall be firmed up at the earliest.

Directive 11: DISTRIBUTION TRANSFORMER FAILURE:

The Commission has directed that the DISCOM should take measures to reduce the transformer failures and adhere to the provision of standards of performance.

Compliance:

Transformer failure during the F.Y.: 2006-07

Year	Transformer Population	Transformer Failed	% Failure
2006-07 (Entire Year)	35924	5990	16.67
2006-07 [upto Dec-2006]	34628	5070	14.63
2007-08 [upto Dec-2007]	37631	4994	13.26

For the reduction of the Transformer failure the following measures are being carried out.

1. Providing of good quality of earthing.
2. Providing of adequate size of fuses on HT & LT side.
3. Managing of equal loading on all the phases.
4. Thorough line maintenance of LT network.
5. To carry distribution transformers maintenance regularly.
6. Provision of proper size of cables in respect of the loading of the transformers.
7. Adopting High Voltage distribution system.

The reduction of the failure of distribution transformers for the year 2007-08 is targeted to be achieved as mentioned hereunder:

Reduction in transformer failures in DGVCL

Sr. No.	Circle	2006-07			Target for 2007-08		
		%age failure			%age failure		
		11KV	22KV	TOTAL	11KV	22KV	TOTAL
1	Valsad	16.12	0	16.12	9	0	9
2	Surat	15.26	23.39	19.32	9.8	15	12.4
3	Bharuch	13.53	16.47	15.00	8	11	9.5
	Total	15.25	20.99	16.67	8.93	13	10.97

Thus, the failure rate for the year 2006-07 of 16.67% is targeted to be reduced to 10.97% for the year 2007-08.

Commission's comments:

The achievement of reduction of transformer failures is appreciated. Failures should be reduced further.

FRESH DIRECTIVES

Directive 1: Purchase of Power from Renewable Energy Sources (RES)

DGVCL is at present purchasing about 252 MU, about 2% of total energy purchase, from Renewable Energy Sources mainly wind energy. The Distribution licensee has to purchase power from renewable sources in accordance with the Regulations in force from time to time.

Directive 2: Timely Meter Reading and Billing

There is a need for timely reading of meter promptly on the due date so that slab overlap does not put the consumer to loss. All the licensees to provide relevant consumer related information on the spare space in the bill or alongwith the bill.

Chapter 7

Fuel and Power Purchase Cost Adjustment

7.1 The Commission approved on 25th June 2004 the Price Adjustment Formula for claiming the increase in Fuel Price and Power Purchase cost. The order gives the methodology for claiming /billing the increase in fuel and power purchase costs based on base prices of fuel, power purchase etc., of the year 2003-04. In the last order (dated 6th May 2006) the base year was changed to 2005-06 and a few minor changes were also made in the formula.

For arriving at the power purchase cost in this order, for Central Generating Stations and IPPs, the fixed and the variable costs are based on the rates billed during the period from April-September 2007. In the case of GSECL generating stations the weighted average fuel costs (coal, lignite, furnace oil, gas and secondary fuel oil) are adopted as detailed in GSECL order for 2007-08 and the fixed costs are as approved in the GSECL tariff order for the control period. The operating parameters for the control period 2008-09, 2009-10 and 2010-11 in the case of GSECL generating stations have been dealt with in the GSECL order.

The quantum of power purchase from each station / source, the variable cost (per kWh) and the total fixed costs for central generating stations, IPPs, GSECL and others for the year 2008-09 are given below:

Power Purchase Prices

GSECL PLANTS	*Capacity* (MW)	Fixed Cost (Rs. Lakhs)	Energy Purchase (MU)	*Variable Cost* (Rs. KWh)
Ukai TPS	850	24478	4879	1.50
Ukai Hydro	305	2461	637	0
Gandhinagar I to IV	660	25280	3340	1.75
Gandhinagar V	210	9087	1540	1.47
Wanakbori I to VI	1260	36996	8538	1.73
Wanakbori VII	210	9018	1540	1.64
Sikka TPS	240	10396	1408	1.99
Kutch Lignite I to III	215	16115	1190	1.07
Kutch Lignite IV	75	8224	461	0.98
Dhuvaran oil	220	7501	1313	3.76
Kadana Hydro	242	5187	190	0
Utran Gas Based	135	5206	1044	2.16
Dhuvaran Gas Based - Stage-I	107	5187	815	2.21
Dhuvaran Gas Based - Stage-II	112	7124	860	2.21
Utran Extension	375	17771	0	1.86
Sikka Extension	0	0	0	0
Total of GSEC plants	**5691**	177714		
IPPs				
ESSAR	300	11106	1224	2.01
GPEC	655	45919	2556	2.47
GIPCL II (160)	160	5136	953	1.72
GIPCL-SLPP	250	18071	1577	0.95

GSECL PLANTS	*Capacity* (MW)	**Fixed Cost (Rs. Lakhs)**	**Energy Purchase (MU)**	***Variable Cost* (Rs. KWh)**
GSEG	156.1	11522	722	1.48
GIPCL - I (145)	41.6	922	0	2.17
GMDC - Akrimota	250	23841	1388	0.61
GSEG Expansion	350	958	18	2.12
GIPCL, Expansion	250	17520	1377	1.75
GSPC-Pipavav	360	986	23	2.12
Total of IPPs	**2772.7**	**135980**		
SHARE FROM CENTRAL SECTOR				
NPC - Tarapur- 1&2	160	0	1010	0.94
NPC - Kakrapar	125	0	803	2.03
NPC - Tarapur- 3&4	274	0	1822	2.73
NTPC - KORBA	360	9014	2474	0.57
NTPC - VINDHYACHAL - I	230	7464	1575	1.03
NTPC - VINDHYACHAL - II	239	10733	1636	0.98
NTPC - VINDHYACHAL - III	266	11982	1908	0.94
NTPC - KAWAS	187	10417	350	3.09
NTPC - JHANOR	237	11965	1544	1.73
NTPC - Kahalgoan	166	10005	1076	1.21
NTPC - Sipat Stage - II	273	0	1769	0.54
SSNNL - Hydro	231	0	288	2.05
NTPC Barh	260	18221	1264	1.70
NTPC North Karanpura	77	5396	375	1.70
Sipat Stage-I	540	37843	3500	1.70
Total from central Sector	**3625**	**133040**		

OTHERS		**MU**		
RELIANCE INDUSTRIES LTD.NARODA		161.49	105	2.34
(II) UNITED PHOSPHOROUS LTD. JHAGADIA		0.00	0	0.00
(IV) GUJARAT ALKALIS & CHEMI. LTD. BARUCH		53.76	35	1.97
(V) ONGC Anlkeshwar		44.04	23	1.90
(VI) ONGC, Hazira		15.85	5	1.90
(VIII) M/S ADANI EXPORT (PHILIPS CARBON)		54.24	16	2.00
(IX) M/S Arvind Mills LTD		0.00	0	0.00
Wind Farms				
Wind Farms (Old Policy)	24	24	48	1.75
Wind Farms (New Policy)	700.5	0	1227	3.37
Bagasse Plants				
Bagasse	15.9	15.9	98	3
Competitive Bidding				
APPL	1000	91209	6482	1.479
Aryan	200	21866	519	0.2084

GUVNL / DISCOMs may claim the increase in the power purchase cost in accordance with the formula approved by the Commission in June 2004 and minor changes made in the order (dated 6th May 2006).

Information regarding FPPPA recovery and the FPPPA calculations submitted to the Commission for approval shall be kept on website of Licensee as and when such proposal is submitted by the Licensee.

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.

7.2 The Commission approved the formula for Fuel and Power Purchase Price adjustment which is being adopted by the Distribution Companies/GUVNL. Which is given below:

FPPPA = [F_{OG}+PPP_1 + PPP_2] / [S.E]

The DISCOM has submitted as follows requesting for a change in the formula.

The formula approved by the Commission does not take into account the impact on the actual power purchase cost paid by the company due to the variation in the quantum of power supplied by the various generating stations vis a vis the quantum estimated by the Commission in its calculations of the approved power purchase cost for the company. For example, if the Commission has considered that a particular station shall generate 100 MUs of energy in the calculation of the power purchase cost of the company and that station generates only 80 MUs of energy during the specified time period, then the company has to procure the balance 20 MUs from another power station. The power purchase cost of these 20 MUs would obviously not be the same as from the original source. This difference in the power purchase cost on account of the variation in the source of power procurement has been missed out under the current mechanism of calculating FPPPA charges and has to be borne by the company.

Clearly, the principle behind the levy of FPPPA charges is to safeguard the Discom from any increase in its power purchase cost by factors uncontrollable by it. Thus, in the case where a generator is unable to generate energy as estimated by the Commission while calculating the power purchase cost of the company, the Discom should not have to bear any additional burden due to it.

It may be noted that the power purchase cost of the company accounts for over 85% of the company's aggregate revenue requirement and hence any variation therein has a significant impact on the company's financials. A sharp jump in the power purchase cost on account of fuel prices or any other reason results in a cash crunch for the company where in the short-term, the company has to borrow large amounts to pay its power purchase bills as the revenue inflow is not sufficient to make all the payments. This results in higher interest costs being paid by the company and ultimately borne by the consumer. Hence, it is financially prudent to have quick and full adjustments of the incremental power purchase costs as this ultimately leads to savings for the company and the consumer.

To incorporate the impact of the source variation on the power purchase cost, the following formula is proposed:

For GSECL plants, the existing formula, reproduced below, approved by the Commission for claiming the increase in the fuel costs by GSECL has been retained unchanged to calculate the Fuel price adjustment on account of fuel price increase of GSECL Plants.

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

Where,

F_{OG}	Adjustment on account of variations in delivered cost of Fuel at GSECL's Thermal Power Stations Rs. in millions
N	1 to k, the thermal power stations in GSECL.
OGD_A	is the actual level of delivered energy at the bus bar (net generation) from GSECL's thermal plants in million units during the quarter.
H_B	is the base station heat rate in K.Cal./ Kwh calculated on the net output using permitted auxiliary consumption.
$FuelC_A$	is the new landed price of fuel at relevant GSECL'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 GSECL'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.

The FPPPA so calculated becomes part of the power purchase bill for the Discoms.

The incremental cost paid by the distribution companies (GUVNL for the all DISCOMs) on its power purchase bill which is to be recovered through the FPPPA mechanism, in per unit terms is proposed to be calculated as follows:

$$FPPPA = [(PPC_A – PPC_B)] / [1-L_A]$$

Where,

PPC_A	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.

PPC_B	Is the 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 while approving the ARR 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 for estimating the power purchase cost in the ARR of all the companies.
L_A	Is the weighted average of the approved level of Transmission and Distribution losses for the four Discoms applicable for a particular quarter.

Commission's view:

Specific generating stations have been allocated to each of the DISCOMs. The fuel cost adjustment shall be specific to the stations allocated. The cost increase in all generating stations of GSECL cannot be pooled to claim the fuel adjustment for the specific stations allocated. The proposal is not approved by the Commission.

In a contingency where a station could not deliver the quantum of energy approved and the DISCOM has to draw power from some other stations, the DISCOM may approach the Commission explaining the circumstances for drawing power from some other stations and obtain fuel price adjustment for energy so drawn from other stations.

Chapter 8

Open Access – Transmission Charges, Wheeling Charges and Cross Subsidy Surcharge

8.1 The Commission approved the transmission charges, wheeling charges and cross subsidy surcharge for open access users for the year 2005-06 in its order dated 28th February 2006. These charges were based on 2003-04 data made available by GEB.

The Gujarat Energy Transmission Corporation (GETCO) and the four Distribution Companies – DGVCL, MGVCL, UGVCL and PGVCL the successor entitles of Gujarat Electricity Board (GEB) filed the petitions for determination of Annual Revenue Requirement (ARR), transmission charges and retail supply tariff for the control period 2008-09 to 2010-11.

The Commission approved the ARR of the above utilities, transmission charges and retail supply tariffs in the respective orders. Based on the approved charges, the Commission revises the open access charges as below. These charges are applicable for the year 2008-09.

8.2 **Transmission Charges**

The transmission charges as given below are applicable for the use of transmission lines (system) of GETCO, the transmission licensee, Generating Companies, Distribution Licensees, other licensees and also consumers who are permitted open access under section 42 (2) of the Electricity Act 2003.

Rates:

Transmission charges for 2008-09 Rs. 2410/MW/Day
Rs. 73298/MW/Month

Plus

Energy loss in kind at 4.09%

The transmission charges payable in cash by long-term open access and short-term open access users shall be –

- Long-term open access users = Rs. 2410/MW/Day
- Short-term open access users = Rs. 603/MW/Day

(1/4 X long term rate= 1/4X2410 = Rs. 603)

The transmission charges for short-term open access users shall further be based on

(a)	Upto 6 hours in a day in one block (1/4 X Short term rate (1/4 X 603)	=	Rs.151 / MW
(b)	More than 6 hours and upto 12 hours in one block (1/2 Short term – 1/2 X 603)	=	Rs. 302 / MW
(c)	More than 12 hours upto 24 hours in one block is the short term rate	=	Rs. 603 / MW

In addition the applicable system losses and other charges as in Commission's open access Regulations will also be charged. The long and short term open access are as defined in the Regulations of the Commission.

8.3 Wheeling Charges

The wheeling charges for the four Distribution companies – DGVCL, MGVCL, PGVCL and UGVCL for the year 2008-09, first year of the control period (2008-09 to 2010-11) as given below are applicable for use of the distribution system of a licensee by other licensees or generating companies or captive power plants or consumers permitted open access under section 42 (2) of the Electricity Act 2003.

1	The Aggregate Revenue Requirement of the four Distribution companies for the year 2008-09	Rs. Lakhs	1429957
2	Less: The power purchase cost of the four distribution companies	Rs. Lakhs	1218311
3	Distribution costs of the four distribution companies (1-2)	Rs. Lakhs	211646
4	Distribution costs of the four distribution companies at 11 kV (Assumed at 30% of total distribution cost)	Rs. Lakhs	63494
5	Energy input to the four distribution companies at 11 kV	MU	47105
6	Wheeling charges at 11 kV (4/5)	Ps / kWh	13.48
7	Wheeling charges at 400 V (LT) (3/5)	Ps/kWh	44.93

Plus

Point of injection	Loss at point of energy delivered	
	11 kV	400 Volts
11 kV, 22 kV and 33 kV	10.01%	18.57%
400 volts	-	9.51%

The losses in HT and LT Network are 10.01% and 9.51%, respectively, with respect to energy input to that segment of the system. In case injection at HT level and drawal at LT level envisages use of both the networks i.e HT and LT, in that case, the combined loss works out to 18.57% of the energy injected at HT Network.

The above wheeling charges payable shall be uniform in all the four distribution companies – DGVCL, MGVCL, PGVCL and UGVCL.

8.1 Cross-subsidy Surcharge

The Commission, in its order dated 28.2.2006, determined the Cross-subsidy surcharge, as payable by any consumers opting for open access, at Rs. 1.80. It was further reduced to Rs. 1.35 per kWh vide its order dated 6.5.2006. Thereafter, the Commission vide its order dated 31.3.2007 reduced the Cross-subsidy surcharge at Rs.1.00 per kWh based on the Average Cost of Supply.

The Appellate Tribunal for Electricity in an Appeal No. 171 of 2005 has also directed that the State Regulatory Commissions should follow the methodology for determining the Cross-subsidy surcharge as specified in the Tariff Policy, which are notified by the Government of India under the Electricity Act, 2003. Earlier, the Commission had determined the Cross-subsidy surcharge based on the average cost of supply which requires re-consideration in the light of the judgment of the Appellate Tribunal and need for reducing the Cross-subsidy surcharge with a view to facilitating open access for consumers.

The relevant clause of the Tariff Policy is reproduced as under:

“8.5 Cross-subsidy surcharge and additional surcharge for open access

8.5.1 *National Electricity Policy lays down that the amount of cross-subsidy surcharge and the additional surcharge to be levied from consumers who are permitted open access should not be so onerous that it eliminates competition which is intended to be fostered in generation and supply of power directly to the consumers through open access.*

A consumer who is permitted open access will have to make payment to the generator, the transmission licensee whose transmission systems are used, distribution utility for the wheeling charges and, in addition, the Cross-subsidy surcharge. The computation of Cross-subsidy surcharge, therefore, needs to be done in a manner that while it compensates the distribution licensee, it does not constrain introduction of competition through open access. A consumer would avail of open access only if the payment of all the charges leads to a benefit to him. While the interest of distribution licensee needs to be protected it would be essential that this provision of the Act, which requires the open access to be introduced in a time-bound manner, is used to bring about competition in the larger interest of consumers.

Accordingly, when open access is allowed the surcharge for the purpose of sections 38, 39, 40 and sub-section 2 of section 42 would be computed as the difference between (i) the tariff applicable to the relevant category of consumers and (ii) the cost of the distribution licensee to supply electricity to the consumers of the applicable class. In case of a consumer opting for open access, the distribution licensee could be in a position to discontinue purchase of power at the margin in the merit order. Accordingly, the cost of supply to the consumer for this purpose may be computed as the aggregate of (a) the weighted average of power purchase costs (inclusive of fixed and variable charges) of top 5% power at the margin, excluding liquid fuel based generation, in the merit order approved by the SERC adjusted for average loss compensation of the relevant voltage level and (b) the distribution charges determined on the principles as laid down for intra-state transmission charges.

Surcharge formula:

$$S = T – [C (1+ L / 100) + D]$$

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 charge*

L *is the system Losses for the applicable voltage level, expressed as a percentage*

The cross-subsidy surcharge should be brought down progressively and, as far as possible, at a linear rate to a maximum of 20% of its opening level by the year 2010-11.”

The Commission has examined the provisions of the National Electricity Policy and Tariff Policy which are notified by the Govt. of India under the provisions of the Electricity Act, 2003. The Commission has also considered various provisions of the Electricity Act, 2003 relating to open access in distribution and transmission and has come to the conclusion that if open access is to be encouraged, then such cross-subsidy surcharge has to be reduced so that the ultimate cost of power to the consumer is affordable. Harnessing of captive generation is also very important to reduce the gap between demand and supply (by using the sunk investment). The State Government earlier followed a forward looking policy for promotion of captive generation and as a result, Gujarat State is one of the front-runner States to have a large capacity of captive power plants.

Accordingly, for the licensees of the unbundled GEB, cross-subsidy surcharge has been worked out by the Commission considering the power purchase by GUVNL on behalf of distribution licensees which, projected for the year 2008-09, was 50486 MUs. While considering the power purchase of top 5% at the margin viz 2524 MUs, the price of liquid fuel based power generation and from renewable sources of power have been excluded.

Estimation of 'C': Weighted Average Cost of Power

While adopting the formula as prescribed in the Tariff Policy, (wherein the weighted average power generation/purchase cost of top 5% power at the margin is to be considered), the weighted average power purchase cost of top 5% works out as in Table 8.1, below.

Table 8.1

Sl. No.	Source	Energy Purchase in MUs	Total Cost (Rs./kWh)
	GPEC	2928	3.93

Estimation of 'T': Tariff payable by the relevant category of consumers

The average realization of various HT consumer categories (which are eligible for open access at present) for the year 2008-09 has been shown in Table 8.2, below.

Table 8.2

Particulars	Overall Average realisation in Rs./Kwh Projected for FY 2008-09
H.T./EHT Industrial	**4.73**
Railway Traction	**5.18**

4.6 The Cross-subsidy surcharge based on the above-mentioned formula works out as in the following table 8.3.

Table 8.3

Category	*T*	*L*	*D*	*C*	*Surcharge* **S = T – [C (1+ L / 100) + D]**
EHT Industrial	*Rs.4.73/kWh*	*4.09%#*	*Rs.0.13/kWh $*	*3.93*	***0.51***
Railway traction	*Rs.5.18/kWh*	*4.09%#*	*Rs.0.13/kWh $*	*3.93*	***0.96***

Transmission loss as approved for FY 2008-09

$ Considering transmission charge of Rs. 2410 /MW/Day as approved for GETCO in the last transmission tariff order with 80% Load factor , the transmission charge works out to Rs. 0.13 /kWh.

As shown in the above table, the Cross-subsidy surcharge for HT-EHT Category works out to Rs. 0.51 per Kwh**, (**which is 28% of the opening level of Cross-Subsidy surcharge) and Rs.0.96 per Kwh for Railway traction based on the methodology provided in the Tariff Policy. As per the provisions made in the Electricity Act, 2003 and the National Electricity Policy, it is essential to encourage open access and reduce the cross-subsidy surcharge in gradual manner to facilitate consumers to adopt open access. Therefore, the Commission has decided that cross-subsidy surcharge for both the HT/EHT industrial category as well as for the Railway Tractions be the same amount Rs. 0.51 per Kwh.

Chapter 9

Tariff Philosophy and Design

9.1 Introduction – Tariff Philosophy

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 and the Regulations on Terms and Conditions of tariff and MYT Regulations notified by the Commission.

Section 61 of the Act lays down the broad principles, which should guide determination of retail tariff. These principles are that the tariff should 'progressively reflect cost of supply of electricity and also reduce the cross subsidies within a period to be specified by the Commission.

The Commission has notified the "Multi-Year Tariff (MYT) framework for determination of tariff from 1st April 2008. The ARR approved in this order is for the control period of 2008-09 to 2010-11 and retail tariffs are determined for the year 2008-09, 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 mandate of the Tariff Policy that the tariff should be within plus or minus 20% of the average cost of supply by 2010-11 has been the guiding principle.

In working out the cost of supply the Commission has gone on the basis of average cost of supply, in the absence of relevant data for working out consumer category-wise cost of supply.

9.2 Proposal of DGVCL for structural changes in tariff categories and increase in tariff

DGVCL proposed an increase in tariff for all categories except agriculture, for the year 2008-09, primarily with an increase in the fixed / demand charges with some marginal increase in energy charges.

Apart from the above stated revision in the tariff rates, a few other structural changes are also proposed by DGVCL as follows:

1. A new residential consumer category has been proposed for BPL consumers having monthly consumption of upto 30 kWh with lower fixed and energy charges. The BPL consumer shall have to provide a copy of the BPL Card issued by the authorities concerned for availing the subsidized tariff.
2. The clauses explaining the applicability of a particular tariff are now more focused so as to remove ambiguities as far as possible based on the field level experience of the Discoms.

3. In LTP-1 category, a separate rate for fixed charges for billing demand greater than contracted demand has been introduced to encourage demand side discipline among these category of consumers as required under the ABT regime

4. Reactive energy charges have been proposed to be introduced for all consumers having contracted load over 10 BHP instead of the earlier threshold of 50 BHP.

5. In streetlights category, fixed charges are proposed to be applied on a per connection basis as opposed to per fixture basis as is currently the case as it is not practically possible to count the number of fixtures on every connection.

6. In HTP-1 category, wherever actual demand exceeds the contract demand, it is proposed that the actual demand shall be considered for determining the applicable slab of energy charges.

7. In HTP-IV category, it has been clarified that this tariff shall not be applicable to those categories of consumers who are otherwise of continuous nature of industry or normally operating shifts during day time also as there have been cases of misuse of this discounted category by certain consumers.

8. The current tariff schedule provides for a discount (of 70% over HTP 1) on the demand charges to HTP-IV category apart from the much lower energy charges applicable to this category. This is proposed to be dispensed with.

9. A new category, namely – HTP V, has been proposed for HT supply to agricultural consumers applicable specifically for High Tension Agricultural Pumping loads of Farmer Co-operative Societies, HT Lift Irrigation Scheme (for lifting water from cannel/river/dam etc to supply water directly to the fields of farmers for agricultural purpose only).

10. In HTP-I and HTP II-(A) categories, a separate demand charge for billing demand being greater than contract demand, has been introduced for consumers with a captive power plant (CPP) to introduce discipline in the drawl by large consumers.

9.3 Proposal of some consumers / consumers organizations

Some of the consumers and consumers organizations, requested for extending the benefit of lower tariff for night hours supply to LT industry also.

9.4 Commission's decisions

The Commission, after examining the above proposals, approves the following changes in tariff structure of DGVCL.

1. A separate tariff category for BPL consumers having monthly consumption upto 30 units, with lower tariff.

2. A separate category for HT supply for agricultural consumers specifically applicable for high tension agricultural pumping loads of farmers' co-operative societies, HT lift irrigation schemes (for lifting water from cannel/river/dam etc to supply water directly to the fields of farmers for agricultural purpose only) etc.

3. Extension of the benefit of lower tariff for night hour supply to both HT and LT industry, with certain stipulations.

4. In the LT commercial category (LFD-2), the existing three slabs are increased to four as follows:

   (i) 0-50 kWh

   (ii) 51-150 kWh

   (iii) 151-300 kWh

   (iv) Above 300 kWh

The approved tariff schedule for different categories of consumers is annexed.

9.5 Roadmap for Cross-subsidy Reduction

The Commission through the Order dated 31.03.2007 (for the Review petition No.1, 2 and 3 of 2007) had directed that –"the data for cost of service are required to be updated to the current year so as to evaluate the amount of cross-subsidy prevailing in the tariff. GUVNL which is co-petitioner with the distribution companies are therefore directed to carry out a cost of service study within a period of six months from the date of this order and submit it to the Commission…"

Subsequently, the GUVNL submitted a report on 'cost of service' for the FY 2005-06 vide letter dated 06.09.2007. The study report was placed on the website and comments / suggestions were invited from the stakeholders.

The main issues relating to cost of service as pointed out by the stakeholders are -

- It is necessary to consider latest cost data.
- It is necessary to consider separate cost for each DISCOM.
- Assessment of Agricultural consumption needs improvement, 100% metering of Agricultural consumers.
- Allocation of T&D losses is not proper.

The GUVNL submitted a copy of detailed reply provided to each stakeholder during April, 2008. However, the details submitted by GUVNL are based on past data and not the latest position. As directed earlier, the GUVNL is again requested to undertake the study on cost of supply to different categories of consumers expeditiously.

It may worthwhile to note that the tariff for agricultural consumers is a complex issue in the context of the provisions of the Tariff Policy that tariff will to be within $\pm$ 20% of the cost of supply by FY 2010-11. The need for food security, inclusive growth and quality of power supply to agriculture are important aspects which are relevant in this context.

On the suggestion of the Working Group of the 'Forum of Regulators' (FOR), it is decided by FOR that a study should be commissioned to examine the issues relating to determination of the cost of service for agricultural consumers taking into account the hours of supply, and also the feasible options for reducing cross-subsidy in agricultural tariff.

In view of the above, the Commission would like to keep in view the study report to be submitted by the GUVNL and also recommendations of the Working Group of the FOR while finalizing a roadmap for reduction of cross subsidy.

9.6 Retail Tariffs proposed by DGVCL and decision of the Commission

DGVCL in the MYT petition for the control period 2008-09 to 2010-11 has proposed the Retail supply tariff on the basis of a net revenue gap of Rs.234.6 crore for the year 2008-09, Rs.585.64 crore for the year 2009-10 and Rs.682.65 crore for the year 2010-11 and proposed an increase in tariff by about 6.0% during 2008-09, about 10.0% during 2009-10 and about 12.0% during 2010-11.

However, on detailed scrutiny of the revenue requirement filed by DGVCL for the control period, the Commission has arrived at a revenue gap of Rs.45.69 crore during 2008-09, Rs. 326.56 crore during 2009-10 and Rs.393.55 crore during 2010-11.

Under clause 12.1 of MYT Regulation 2007, the Commission is to determine the tariff for the year 2008-09, the first year of the control period. Though the Commission determines the tariff to cover the overall gap of all the four unbundled licensees during 2008-09, the revised tariff is not to be implemented retrospectively w.e.f. 1st April 2008 as it imposes a heavy burden on the consumers. Hence, it shall be implemented with effect from the 1st February 2009. The utility can recover about 34% of the gap on an annual basis, and other the other part of the gap, if any, can be recovered during the remaining years of the control period. The actual gap would, however, be arrived at on the performance review and truing up for the year 2008-09. The Regulation 65 (b) of the "Terms and Conditions of Tariff" Regulations of GERC stipulates prospective implementation of revised tariffs as mentioned below:

> *"The tariff shall normally be revised from the prospective date with due notice except for adjustment of FPPPA unless there is a compelling reason to review the same from the retrospective date in which case detailed justification will be given in writing by the Commission".*

The Commission does not see any compelling reason to implement the tariffs retrospectively, particularly, when the filing of the ARR and Tariff Petition is delayed and nine months of the year have already passed.

Though the Commission recognizes the need for increase in the tariffs and some restructuring to meet the gap either fully or partly, it may not be desirable to do any major exercise to revise the tariff structure at the fag end of the year. It is the considered view of the Commission that the existing tariff structure may continue with a few changes and modest increase in energy charges for some categories of consumers covering about 34% of the gap on an annual basis. The actual gap for 2008-09 would, however, be arrived at based on the performance review of the year 2008-09 and truing up. The gap on truing up for 2008-09 and the likely gap to be arrived at by the Commission for the year 2009-10 on due scrutiny of the proposal of the utility for the year 2009-10, will enable the Commission to take appropriate decision for determination of the tariff for the year 2009-10 taking into consideration the present ARR proposal of the utility and changes, if any, proposed for the year 2009-10.

The Commission has, therefore, decided to continue the existing retail supply tariff structure for the year 2008-09 with a few changes and modest increase in tariffs for some categories of consumers. The changes approved are indicated in para 9.4 above. The revised tariff schedule issued including the above changes is Annexed.

There would not be any adverse effect on the cash flow of the utility as the commission has already permitted the utility to recover increase, if any, of the cost of power purchase through FPPPA. The expenditure on power purchase constitutes about 84% of the total expenses and any increase in other expenses - interest and finance charges, interest on working capital, O&M expenses and depreciation (non-cash expenditure item) which constitute about 16% of total expenses - will have only marginal impact.

The utility is directed to file the Annual Performance Review application for 2008-09 and tariff proposal for 2009-10 by the 31st March 2009 with audited accounts for 2007-08, actuals for the first nine months (April to December 2008) of 2008-09 and projections for the balance three months of 2008-09 before the Commission for a decision on determination of retail supply tariff for the year 2009-10.

COMMISSION'S ORDER

Having considered the petition of DGVCL for approval of Aggregate Revenue Requirement (ARR) and determination of retail supply tariffs, the Commission approves the Aggregate Revenue Requirement for Dakshin Gujarat Vij Company Limited (DGVCL) for the control period 2008-09 to 2010-11 as shown in the following table:

Rs. lakhs

S.No.	Particulars	Approved by the Commission (With existing tariff)		
		FY 2008-09	FY 2009-10	FY 2010-11
1	Cost of Power Purchase	343201	397325	431063
2	O & M Expenses	17658	18002	17820
3	Depreciation	5816	6821	7761
4	Interest on Loans & Finance Charges	7794	8136	8373
5	Interest on Working Capital	3461	3954	4260
6	Other Debits	99	104	109
7	Extraordinary items	150	150	150
8	Provision for bad debts	387	434	475
9	Less : Interest & Expenses Capitalised	4545	4818	5107
10	**Sub Total**	**374021**	**430108**	**464904**
11	Return on equity	5190	5948	6683
12	Provision for Tax	61	61	58
13	**Total Expenditure**	**379272**	**436117**	**471645**
14	Less : non tariff income	3456	3663	3883
15	**Aggregate revenue requirement (13-14)**	**375816**	**432454**	**467762**

The approved retail supply tariff will be in accordance with the Tariff Schedule Annexed to this Order.

The order shall come into force with effect from 1st February 2009.

Sd/-	Sd/-	Sd/-
DR. P K MISHRA **Chairman**	**K P GUPTA** **Member**	**DR. MANMOHAN** **Member**

Date: 17 January 2009

Ahmedabad

TARIFF SCHEDULE

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

Effective from 1st February 2009

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.

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 utilised 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 utilised only for the purpose for which supply is taken and as provided for in the tariff.

7. The above is without prejudice to the rights of the GERC to determine different tariffs for such consumers as it may consider it expedient under the provisions of Section 61 and Section 62 of the Electricity Act, 2003.

8. The 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.

9. The Fuel Cost and Power Purchase Adjustment Charges shall be applicable in accordance with the Formula approved by the Gujarat Electricity Regulatory Commission from time to time.

10. 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.

PART - I

SCHEDULE OF TARIFF FOR SUPPLY OF ELECTRICITY AT LOW AND MEDIUM VOLTAGE

1.0 RATE LFD-I (FOR RESIDENTIAL PREMISES):

This tariff will apply to services for lights, fans and small electrical appliances such as refrigerators, cookers, heaters and small motors having individual capacity not exceeding two BHP attached to domestic appliances in the residential premises.

Single-phase supply (aggregate load upto 6 kW)

Three-phase supply (aggregate load above 6 kW including small motive power load up to 10 kW).

1.1 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

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

(a)	First 50 units	270 Paise per Unit
(b)	Next 50 units	300 Paise per Unit
(c)	Next 100 units	360 Paise per Unit
(d)	Next 100 units	420 Paise per Unit
(e)	Above 300 units	470 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
(b)	For remaining units	Rate as per LFD-I

****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 LFD-I (Rural):

This tariff will apply to services for residential premises located in areas within gram panchayat as defined in the Gujarat Panchayats Act.

However this will not apply to villages which are located within the geographical jurisdiction of Urban Development Authority.

Single-phase supply (aggregate load upto 6 kW)

Three-phase supply (aggregate load above 6 kW including small motive power load up to 10 kW)

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	220 Paise per Unit
(b)	Next 50 units	250 Paise per Unit
(c)	Next 100 units	310 Paise per Unit
(d)	Next 100 units	370 Paise per Unit
(e)	Above 300 units	430 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
(b)	For remaining units	Rate as per LFD-I (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 in rural area with population upto 10,000 as per Census- 2001, entire consumption will be charged under this tariff.*

3.0 RATE LFD-II (FOR COMMERCIAL PREMISES)

This tariff will apply to the services for the purposes specified in the rate LFD-I in respect of commercial premises, such as shops, workshop, hotels, restaurants, showrooms, offices, etc., etc.

3.1 Fixed Charges:

Range of Connected Load:

(a)	Upto and including 2 kW	Rs.50/- per month
(b)	Above 2 to 4 kW	Rs.100/- per month
(c)	Above 4 kW to 6 kW	Rs.150/- per month
(d)	Above 6 kW	Rs.200/- per month

PLUS

3.2 Energy charges:

(a)	For the first 50 units per month	360 Paise per unit
(b)	For the next 100 units per month	420 Paise per unit
(c)	For the next 150 units per month	480 Paise per unit
(d)	For the remaining units per month	490 Paise per unit

3.3 Minimum Bill (excluding meter charges):

Payment of fixed charges as specified in 3.1 above.

4.0 <u>RATE LFD-III</u>

This tariff is applicable to the educational and other institutions registered with the Charity Commissioner.

(a)	Fixed charges	Rs.45/- per month
(b)	Energy charges	310 Paise per Unit

5.0 <u>RATE-LTP</u>

This tariff shall be applicable for motive power services

5.1 RATE LTP-I

This tariff is applicable for aggregate motive power load not exceeding 125 BHP.

5.1.1. Fixed charges per month:

For an installation having the contracted load upto 10 BHP	Rs.22/- per BHP
For installation having contracted load exceeding 10 BHP:	
(i) For first 10 BHP of contracted load	Rs.22/- per BHP
(ii) For next 40 BHP of contracted load	Rs.40/- per BHP
(iii) For next 25 BHP of contracted load	Rs.65/- per BHP
(iv) For next 25 BHP of contracted load	Rs.100/- per BHP
(v) Balance BHP of contracted load	Rs.155/- per BHP

PLUS

5.1.2 Energy charges:

(a)	For installation having contracted load upto and including 10 BHP: For entire consumption during the month	360 Paise per Unit
(b)	For installation having contracted load exceeding 10 BHP: For entire consumption during the month	385 Paise per Unit

PLUS

5.1.3 Reactive Energy Charges:

For installation having contracted load of 50 BHP and above for all reactive units (KVRAH) drawn during the month	10 Paise per KVARH

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

(a)	When contracted load is upto 75 BHP	Rs.105 per BHP
(b)	When contracted load exceeds 75 BHP	Rs.180 per BHP

5.1.5 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.1200/- per annum per BHP of the contracted load for the installation having the contracted load upto 75 BHP, and Rs.2000/- per annum per BHP when contracted load is exceeding 75 BHP.

(d) The units consumed during the off-season period shall be charged for at a flat rate of 400 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.

5.2 RATE LTP-II

This tariff shall be applicable to educational institutions and research and development laboratories for motive power services where machines and appliances are primarily used for demonstration/research purposes only.

5.2.1 Energy Charges

For all units consumed during the month	400 Paise per Unit

<u>NOTE</u>:

The educational institutions and research laboratories will have an option to either select of the rate LTP-I with minimum charges or rate LTP-II without minimum charges. The option can be exercised to switch over from LTP-I tariff to LTP-II and vice versa twice in a calendar year by giving not less than one month's notice in writing.

5.3 <u>RATE LTP-III</u>

This tariff shall be applicable to consumers using electricity for motive power services for minimum contract demand of 20 kW and up to 100 kW at low voltage.

5.3.1 <u>Fixed charges</u>:

(a)	**For billing demand upto the contract demand**	
	(i) For first 20 to 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

5.3.2 <u>Energy charges</u>:

For the entire consumption during the month	405 Paise per Unit

PLUS

5.3.3 Reactive Energy Charges:

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

5.3.4 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) 20 kW

5.3.5 Minimum Bill

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

NOTE:

(i) This tariff shall be applicable if the consumer so opts to be charged in place of LTP-I Tariff.

(ii) The option can be exercised to switch over from LTP-I tariff to LTP-III tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.

(iii) Consumer has to provide metering system in the event when proper metering system is not provided by Distribution Licensee..

(iv) In the event of actual maximum demand exceeds 100 kW more than three occasions during the period of six months, the consumer has to provide his distribution transformer at his cost and maintain at his cost.

5.4 RATE LTP-IV

This tariff is applicable for aggregate motive power load not exceeding 125 BHP 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.)

5.4.1 Fixed Charges per month:

Fixed charges specified in RATE LTP-I above.

PLUS

5.4.2 Energy Charges:

For entire consumption during the month	200 Paise per Unit

5.4.3 Reactive Energy Charges:

For contract load of 50 BHP and above: For all reactive units (KVARH) drawn during the month	10 Paise per KVARH

NOTE:

(i) 10% of total units consumed and 15% of the contract load can be availed beyond the prescribed hours for the purpose of maintenance.

(ii) For the purpose of office lighting, fans etc. the consumer may apply for a separate connection.

(iii) This tariff shall be applicable if the consumer so opts to be charged in place of LTP-I tariff by using electricity exclusively during night hours as above.

(iv) The option can be exercised to switch over from LTP-I tariff to LTP-IV tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.

(v) 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 LTP-I

5.5 RATE LTP-IV (A)

This tariff is applicable to consumers using electricity for motive power services for minimum contract demand of 20 kW and upto 100 kW at low voltage 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.

5.5.1 Fixed Charges per month:

Fixed charges specified in RATE LTP-III above.

PLUS

5.5.2 Energy Charges:

For entire consumption during the month	200 Paise per Unit

5.5.3 Reactive Energy Charges:

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

NOTE:

(i) 10% of total units consumed and 15% of the contract demand can be availed beyond the prescribed hours for the purpose of maintenance.

(ii) For the purpose of office lighting, fans etc. the consumer may apply for a separate connection.

(iii) This tariff shall be applicable if the consumer so opts to be charged in place of LTP-III tariff by using electricity exclusively during night hours as above.

(iv) The option can be exercised to switch over from LTP-III tariff to LTP-IV(A) tariff and vice versa twice in a calendar year by giving not less than one month's notice in writing.

(v) 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 LTP-III.

6.0 RATE WW (Water Works)

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

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

(a)	Fixed charges per month	Rs.15/- per BHP
PLUS		
(b)	Energy charges per month: For entire consumption during the month	350 Paise per Unit

6.2 **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 BHP
PLUS		
(b)	Energy charges per month: For entire consumption during the month	330 Paise per Unit

6.3 **Type III** – Water works and sewerage pumps operated by 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	240 Paise/Unit

6.4 **Type IV** - Water works and sewerage pumps operated by Municipalties / Nagarpalikas:

Energy charges per month: For entire consumption during the month	270 Paise/Unit

6.5 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

7.0 <u>RATE-AG (AGRICULTURAL)</u>

This tariff is applicable to motive power services used for irrigation purposes only.

7.1 The rates for following group are as under:

7.1.1 HP Based Tariff:

For entire contracted load	Rs.140/BHP/month

ALTERNATIVELY

7.1.2 Metered Tariff:

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

7.1.3 Tatkal Scheme:

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

<u>NOTE:</u> 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.

7.2 No machinery other than pump water for irrigation 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.

7.3 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.

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).

8.0 <u>RATE SL (STREET LIGHTS)</u>

8.1 **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.

8.1.1 Energy Charges:

For all the units consumed during the month: For streetlights operated by industrial estates and local authority	330 Paise per Unit

8.1.2 Minimum Charges:

The minimum energy consumption is prescribed for consumer with more than 50 street lights within a village or an industrial estate, as the case may be, as equivalent to 2200 units per annum per kilo watt of connected load during the year.

8.1.3 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.

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

8.2.1 Energy charges:

For all units consumed during the month	330 Paise per kWh

8.2.2 Minimum Charges:

Rs.3 per month per fixture

8.2.3 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.

8.2.4 Maintenance other than Replacement of Lamps:

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

9.0 <u>RATE TMP (TEMPORARY)</u>:

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

9.1 Energy Charges:

For the supply used for the purposes stipulated in respective tariff for permanent supply:

(a)	Rate LFD-I (for residential premises) & LFD-I (Rural)	435 Paise/Unit
(b)	Rate LFD-II (for non-residential premises)	480 Paise/Unit
(c)	Rate LFD-III (for educational and other institutions)	480 Paise/Unit
(d)	Rate LTP-I, LTP-II and LTP-III	640 Paise/Unit

9.1.2 Minimum charges:

(a)	For the purpose stipulated in LFD:	Rs.20/- per day
(b)	For the purpose stipulated in Rate LTP-I	Rs.200/- per BHP per month
(c)	For the purpose stipulated in Rate LTP-III	Rs.225/- per kW per month

<u>NOTE</u>: Payment of bill 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.

10.0 <u>DELAYED PAYMENT CHARGES FOR LT CONSUMERS</u>:

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

Delayed payment charges will be levied at the rate of 1.5% per month or part thereof (upto the time of ultimate disconnection of supply) in case of all LT consumers except Agricultural category and for the period from the date of permanent disconnection, the delayed payment charges will be levied at the rate of 1.25%. Delayed payment charges will be levied at the rate of 1% per month or part thereof for the consumer governed under Rate AG from the date of billing till the date of payment if the bill is paid after ten days from the date of billing.

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

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

11. RATE HTP-I

For regular power supply for larger power service purposes not specified in rate HTP-II (A) and II (B)

12. RATE HTP-II (A)

For the purpose specified therein.

13. RATE HTP-II (B)

For the purposes specified therein.

14. RATE HTP-III

For supplying at high tension for temporary purposes and for contract load of not less than 100 kVA.

15. RATE HTP-IV

For using electricity exclusively during night hours.

16. RATE HTP-V

17. RATE RAILWAY TRACTION

11.0 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 Rate HTP-II(A) and HTP-II(B). Research & Development Units recognised by the Ministry of Science and Technology, Department of Scientific and Industrial Reasearch and Government, shall pay at HTP-I rates. Water Works and Sewerage pumping stations run by Local Authorities and GW & SB, GIDC Water Works, Jetty which is an integrated part of main plant of industries and water works connection which is an integrated part of main plant of industries having the Contracted Demand 100 kVA and above shall pay at HTP-I rates.

11.1 Demand Charges ; (other than Public Water Works)

11.1.1 For billing demand upto contract demand.

(a)	For first 500 kVA of billing demand	Rs.98/- per kVA per month
(b)	For next 500 kVA of billing demand	Rs.139/- per kVA per month
(c)	For next 1500 kVA of billing demand	Rs.208/- per kVA per month
(d)	For billing demand in excess of 2500 kVA	Rs.237/- per kVA per month

11.1.1a For billing demand upto contract demand for Public Water Works of Gujarat Water and Sewage Board, Municipal Coporations, Municipalities and other local authorities.

(a)	For first 500 kVA of billing demand	Rs.89.25/- per kVA per month
(b)	For next 500 kVA of billing demand	Rs.126/- per kVA per month
(c)	For next 1500 kVA of billing demand	Rs.189/- per kVA per month
(d)	For billing demand in excess of 2500 kVA	Rs.215.25/- per kVA per month

11.1.2 For Billing Demand in Excess of Contract Demand (other than Public Water Works)

For billing demand in excess over the contract demand	Rs.369 per kVA per month

11.1.2a For billing demand in excess of contract demand for Public Water Works of Gujarat Water and Sewage Board, Municipal Coporations, Municipalities and other local authorities.

For billing demand in excess over the contract demand	Rs.335 per kVA per month

PLUS

11.2 Energy Charges for all HTP-I consumers including Public Water Works.

For entire consumption during the month		
(a)	Upto 1000 kVA contract demand	385 Paise per Unit
(b)	For 1001 kVA to 2500 kVA contract demand	405 paise per Unit
(c)	Above 2500 kVA contract demand	415 Paise per Unit

PLUS

11.3 Time of Use Charges:

(These charges shall be levied from a consumer having contract demand or actual demand of 500 kVA and above):

For energy consumption during the two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	75 Paise per Unit

11.4 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

11.5 Minimum Bills:

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

11.6 Lighting and Non-Industrial Loads:

The consumption of lights and fans and other non-industrial loads of the factory building as also the consumption of creche, laboratory, stores, time keeper’s office, yards, watch and ward, first aid centres, and dispensaries during a month registered at the main meter on HT side shall be charged at the energy charges specified above.

11.7 Power Factor:

11.7.1 Power Factor Adjustment Charges:

(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 “Demand Charges” and “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 “Demand Charges” and “Energy Charges”, will be charged.

11.7.2 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 "Demand Charges" and "Energy Charges" for every 1% rise or part thereof in the average power factor during the month above 95%.

11.8 Meter Charges:

The meter charges per month are chargeable 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.

11.9 Electricity Duty and Tax on Sale of Electricity:

Electricity Duty and tax on sales of electricity will be collected in accordance with the rates prescribed by the Government from time to time. The consumer shall make separate metering arrangement for segregation of energy consumption wherever necessary for the purpose of levying electricity duty at different rate.

11.10 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 minutes period of maximum use where such meter reading directly the maximum demand in KW/KVA have been provided.

11.11 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.

11.12 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%

11.13 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.

11.14 Seasonal Consumers taking HT Supply:

11.14.1 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.

11.14.2 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.

11.14.3 The total minimum amount under the head “Demand and Energy Charges” payable by a seasonal consumer satisfying the eligibility criteria under sub clause 10.14.1 above and complying with provisions stipulated under sub clauses 10.14.2 above shall be Rs.4000/- per annum per kVA of the billing demand.

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

(a) The highest of the actual maximum demand registered during the calendar year.

(b) Eighty-five percent of the arithmetic average of contract demand during the year.

(c) One hundred kVA.

11.14.5 Units consumed during the off-season period shall be charged for at the flat rate of 415 Paise per unit.

11.14.6 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.

11.15 Delayed Payment Charges:

No delayed payment charges if the bill is paid within ten days from the date of billing.

Delayed payment charges are payable at the rate of 1.5% per month on Distribution Licensees' charges upto the time of ultimate disconnection of supply and at the rate of 1.25% per month from the date of permanent disconnection.

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

12.0 RATE HTP-II(A)

Applicability: This tariff shall be applicable for supply of energy to HT consumers contracting for 100 KVA and above, requiring power supply for Railways (other than Railway Workshops chargeable under Rate HTP-I and Railway Traction), hotels, amusement parks, resorts, water parks, aerodromes, cinemas, auditoriums, banks, studios, offices, film production, etc., requiring and given separate point of supply and such other establishments as may be approved from time to time by the Commission.

12.1 Demand Charges:

(a)	**For billing demand upto contract demand:**		
	(i)	For first 1000 kVA of billing demand	Rs.173/- per kVA per month
	(ii)	For billing demand in excess of 1000 kVA	Rs.260/- per kVA per month
(b)	**For billing demand in excess of contract demand**		Rs.396 per kVA per month for billing demand in excess over the contract demand

PLUS

12.2 Energy Charges:

For all units consumed during the month	420 Paise per Unit

PLUS

12.3 Time of Use Charges:

(These charges shall be levied from a consumer having contract demand or actual demand of 500 kVA and above):

For energy consumption during the two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	75 Paise per Unit

12.4	Billing demand	
12.5	Minimum bill	
12.6	Power factor	**Same**
12.7	Meter charges	**as per**
12.8	Electricity Duty and tax on sale of electricity	**HTP-I**
12.9	Maximum demand and its measurement	**Tariff**
12.10	Contract demand	
12.11	Rebate for supply at EHV	

12.12 Delayed payment charges

13.0 <u>RATE HTP-II(B)</u>:

Applicability: This tariff shall be applicable for supply of energy to HT consumers contracting for 100 kVA and above, requiring power supply for residential colonies, townships, educational institutions governed by the government, and Defence Establishments (Establishments under the Armed Forces and the Ministry of Defence, other than the units of public sector undertakings under the Ministry of Defence), requiring and given separate point of supply.

13.1 <u>Demand Charges</u>:

(a) For entire billing demand	Rs.127/- per kVA per month
(b) For billing demand in excess of contract demand	Rs.385 per kVA per month

PLUS

13.2 <u>Energy Charges</u>:

For all units consumed during the month	370 Paise/Unit

PLUS

13.3 <u>Time of Use Charges</u>:

These charges shall be levied on a consumer having contract demand or actual demand of 500 kVA and above:

For energy consumption during the two peak periods, viz., 0700 Hrs to 1100 Hrs and 1800 Hrs to 2200 Hrs	75 Paise per Unit

13.4	Billing Demand	
13.5	Minimum Bill	
13.6	Power Factor	**Same as**
13.7	Meter Charges	**per HTP-I**
13.8	Electricity Duty and Tax on Sale of Electricity	**Tariff**
13.9	Maximum Demand and its Measurement	
13.10	Contract Demand	
13.11	Rebate for supply at EHV	

13.12 Delayed Payment Charges

14.0 <u>RATE HTP-III:</u>

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.

14.1 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

14.2 Energy Charges:

For all units consumed during the month	630 Paise per Unit

PLUS

14.3 Time of use charges:

(These charges be levied from the consumer who is having contracted demand or actual demand of 500 kVA and above).

Additional charge for the energy consumption during two peak periods, i.e., 07.00 Hrs to 11.00 Hrs and 18.00 Hrs to 22.00 Hrs.	75 Paise per Unit

14.4 Billing Demand:

14.5 Minimum Bill:

14.6 Maximum demand and its measurement.

14.7 Meter Charges:

14.8 Electricity duty and tax on sale of electricity

14.9 Contract demand

14.10 Delayed payment charges

Same as per HTP-I Tariff

15.0 RATE HTP-IV

This tariff shall 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 Rate HTP-II(A) and HTP-II(B); and consumer opting to use electricity exclusively during night hours from 10.00 PM to 06.00 AM next day.

15.1 Demand Charges:

Same rates as specified in Rate HTP-I

PLUS

15.2 Energy Charges:

For all units consumed during the month	200 Paise per Unit

15.3 Billing demand

15.4 Minimum bill

15.5 Power factor

15.6 Meter charges

15.7 Electricity duty and tax on sale of Electricity

15.8 Maximum demand and its measurement

15.9 Contract demand

15.10 Rebate for supply at EHV

As per Rate HTP-I

15.11 Delayed payment charges

NOTE:

(i) 10% of total units consumed and 15% of the contract demand can be availed beyond the prescribed hours for the purpose of maintenance.

(ii) For the purpose of office lighting, fans etc. the consumer may apply for a separate connection.

(iii) 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.

(iv) 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.

(v) 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.

16.0 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.

16.1 Demand Charges:

Demand Charges Rs. 25 per kVA per Month

PLUS

16.2 Energy Charges:

For all units consumed during the month	160 Paise per Unit

16.3 Power Factor Adjustment Charges
16.4 Meter charge
16.5 Billing Demand
16.6 Contract demand
16.7 Minimum bill
16.8 Maximum demand
16.9 Delayed Payment Charges

As per HTP-I Tariff

16.10 Rebate for supply at EHV

17.0 RATE – RAILWAY TRACTION:

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

17.1 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 17.1(b).

PLUS

17.2 Energy Charges:

For all units consumed during the month	455 Paise per Unit

17.3 Power Factor Adjustment Charges
17.4 Meter charge
17.5 Billing Demand
17.6 Contract demand
17.7 Minimum bill — **As per HTP-I Tariff**
17.8 Maximum demand
17.9 Delayed Payment Charges
17.10 Rebate for supply at EHV

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